Appendix D
Biological Technical Report

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Mr. Marcus Lubich
Environmental Project Manager
County of San Diego, Department of General Services
5560 Overland Avenue, Suite 410
San Diego, CA 92123

Subject: Paseo Norte Senior Affordable Housing Project Biological Technical Letter Report (Task Order 64, County of San Diego Contract No. 557744)

Dear Mr. Lubich:

Environmental Science Associates (ESA) is pleased to provide this Biological Technical Letter Report for the Paseo Norte Senior Affordable Housing Project (project) located in unincorporated San Diego County, California. This report documents the existing biological conditions within the study area, which includes APNs 281-182-17 and 281-182-18 (project site) and a 100-foot buffer, and includes a description of species observed, a discussion of the sensitive biological resources observed or that have potential to occur, and potential impacts to biological resources as a result of project implementation. The information used to support this report includes research of available literature and databases as well as the results of a field reconnaissance survey, aquatic resources delineation, and focused surveys for special-status plant and wildlife species. This report also provides a discussion of biological resource impacts and recommended mitigation measures to reduce impacts below a level of significance. This report comprehensively documents existing biological resources within the study area and surrounding lands in order to assist the County of San Diego in project planning and permitting.

Project Location

The County of San Diego Department of General Services (County) is proposing the development of two parcels of land for the project. The project site occupies 7.86 acres (the study area, which includes the 100-foot buffer, occupies 15.59 acres) of undeveloped land within the community of Ramona, as shown in **Figure 1**, Regional Location (see figures at end of report). The project site is located on APNs 281-182-17 and 281-182-18. The project site is generally bound by Walnut Street and Santa Maria Creek to the north; the terminus of 12th Street and vacant parcels to the east; vacant land with multiple degraded concrete pads to the south; and Maple Street/13th Street and a salvage yard to the west, as shown in **Figure 2**, Vicinity Map.

Project Description

The project was designed to avoid and minimize impacts to sensitive biological resources and provide setback buffers from development for the protection of these resources. A description of the proposed project is provided below.

Senior Group Residential Housing, Senior Center, and Program for All-Inclusive Care for the Elderly Wellness Center

The project consists of development of approximately 100 affordable senior residential units, which would include 85 one-bedroom units and 15 two-bedroom units. Residential units would be located within an approximately 77,500 square foot (sf) two-story building arranged around a courtyard near the southeastern portion of the project site (**Figure 3**). The ground floor of the residential building would include a lobby, lounge, senior center, a common kitchen, two laundry rooms, and 42 one-bedroom units and 8 two-bedroom units. The ground floor would also include an outdoor terrace with a fire feature adjacent to the lobby and lounge. The senior center would be 1,800 sf and would include a lobby, multiuse room, kitchen, dining area, and restrooms. The residential building's second floor would include two laundry rooms, 43 one-bedroom units, and 7 two-bedroom units. The residential building's interior courtyard would include a barbeque area, bocce ball court, and community gardens. The two-story residential building would be designed to be neutral-toned, featuring stone cladding, wood details, lap siding, and stucco materials.

An approximately 5,000 sf single-story PACE Wellness Center would be located west of the residential building. The PACE Wellness Center would include a lobby with reception area, exam rooms, physical therapy area, staff lounge and locker rooms, storage and service spaces, and restrooms. Similar to the residential building, the PACE Wellness Center would include lap siding and wood details with a stone cladded outdoor fire feature and chimney.

Implementation of the residential building (which would include the senior center) and PACE Wellness Center would require the construction of utility services and relocation (or undergrounding) of utility lines, including water, wastewater, storm drainage, electricity, natural gas, telecommunications, and solid waste disposal areas. The project would be constructed to achieve GreenPoint Rated certification. In addition, shielded security and landscaping lighting would be placed outdoors in public areas.

Public Park

The proposed project would include a public park located north of the residential and PACE Wellness Center uses, extending to Santa Maria Creek. The public park area would be vegetated with shade trees and grasses. In addition, a looped multipurpose trail would span the perimeter of the southern portion of the public park area, with multiple shade structures and picnic benches located at various points along the trail. In the northern portion of the proposed public park area, south of Santa Maria Creek, the multipurpose trail would connect to a proposed extension of the Santa Maria Creek Greenway Trail, which would cross the project site in an east to west direction. This portion of the trail would allow for equestrian uses. The walking path would be composed of decomposed granite pavement. The public park area would also include two pickleball courts and a tot lot, located adjacent to and within the multipurpose loop. The public park would be constructed by the affordable housing developer. Upon successful completion of construction, the active and passive park spaces, consisting of approximately 4.39 acres, would be dedicated to County of San Diego, Department of Parks and Recreation

(DPR). DPR would assume ownership responsibilities including all maintenance and management responsibilities associated with the park spaces.

Parking and Circulation

The project would include two parking lots: senior center and PACE Wellness Cener parking to the north of the PACE Wellness Center, and senior residential parking to the north of the residential building. The two parking lots would have egress and ingress via the terminus of 12th Street and via 13th Street. The proposed project would include approximately 98 parking spaces total. The senior residential parking lot would include approximately 73 parking spaces, and the western lot serving the Senior Center and PACE Wellness Center would include 25 spaces. The project would require 147 parking spaces pursuant to Section 6750 of the ZO but a reduction in parking spaces would be allowed pursuant to Density Bonus Section 6350 of the ZO.

Roadway improvements to 13th Street are being proposed and analyzed as part of the 13th Street Bridge Project [SCH# 2021100070] by County Department of Public Works (DPW). The current project frontage along 13th Street/Maple Street is an existing dirt road, which will be improved to County Road Standards as part of the 13th Street Bridge Project. The 13th Street Bridge Project would provide a new vehicular bridge spanning the Santa Maria Creek, roadway and pathway improvements to 13th Street and Willow Road. As noted above, this project will construct a curb cut to provide ingress and egress to the project site from 13th Street.

Pedestrian improvements would include construction of periphery sidewalks along 12th street (sidewalk pedestrian improvements along 13th Street are being proposed and analyzed as part of the 13th Street Bridge Project [SCH # 2021100070]). Additionally, pedestrian paths landscaped with shrubs and shade trees would be located throughout the site, including along the exterior perimeter of the buildings. A paseo would be located between the proposed residential building/senior center and PACE Wellness Center, which would expand from the public park area through the parking lot, to the southern project boundary, for future connection to the Ramona Public Library and any future expansion of the Ramona Intergenerational Community Campus (RICC) Project, which covered the project site and a larger area. All pedestrian improvements would include American's with Disabilities (ADA) accessible walkways, ramps, and entrances.

Construction

Construction of the proposed project would occur in five phases, as detailed in **Table 1**. Construction would occur 6 days per week, consistent with Section 36.408 of the County Code of Ordinances, over a total of 23 months starting in the winter of 2025. . A maximum of 500 cubic yards (CY) of soil would be excavated and a maximum of 5,500 CY of fill will be imported. Maximum ground disturbance depths are expected to reach depths of up to five feet below ground surface. Construction would occur within permitted working hours, in compliance with the San Diego County Code of Regulatory Ordinances. Staging for the project would occur on-site.

TABLE 1
CONSTRUCTION PHASES AND EQUIPMENT

Phase	Activity	Duration	Approximate Construction Workers	Typical Construction Equipment
1	Site Preparation	1 month	9	Graders Scrapers Tractors/Loaders/Backhoes
2	Grading/Excavation	1 month	10	Graders Rubber Tired Dozers Tractors/Loaders/Backhoes
3	Building Construction	21 months (concurrent with Paving and Architectural Coating)	115	Cranes Forklifts Generator Sets Tractors/Loaders/Backhoes Welders
4	Paving	9 months (concurrent with Building Construction and Architectural Coating)	8	Cement and Mortar Mixers Pavers Paving Equipment Rollers Tractors/Loaders/Backhoes
5	Architectural Coating	5 months (concurrent with Building Construction and Paving)	23	Air Compressors

Operation

The proposed project site is currently owned by the County of San Diego, where the affordable housing developer would acquire the entirety of both APNs (281-182-17 and 281-182-18) from the County. Upon acquisition, the site would be developed as outlined above. Upon successful completion of construction, the active and passive park spaces, consisting of approximately 4.39 acres, would be dedicated to County of San Diego DPR. DPR would assume ownership responsibilities including all maintenance and management responsibilities associated with the park spaces.

Both the proposed senior center and the PACE Wellness Center would provide services to the residents living within the project site as well as the surrounding community, enhancing the level of senior services available and allowing for an aging in place opportunity. These services would include care management and care coordination, medical care, physical and occupational therapies, home based outreach and services, assistance with activities of daily living, behavioral health services, recreational activities, nutritional meals, and transportation.

The senior center would operate between 8:00 a.m. to 8:00 p.m. Monday through Friday and 8:00 a.m. to 5:00 p.m. Saturday and Sunday. The senior center would be staffed by approximately three full time employees. There

would also be eight full time employees staffed for the senior housing units and a maximum of 24 employees at the PACE Wellness Center who would work similar hours as the senior center staffers.

Methodology

Literature Review

Prior to conducting the field survey, ESA biologists conducted a database search and review of sensitive biological resources and habitats, including queries of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Data Base (CNDDB) (CDFW 2021a) and California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants (CNPS 2021) for recorded occurrences of special-status plant and wildlife species within the Ramona, California 7.5-minute USGS topographic quadrangle and the eight surrounding USGS quadrangles (**Attachment A**). ESA also reviewed the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) report for federally-sensitive biological resources known to occur in the vicinity of the study area (USFWS 2021a) (Attachment A), as well as Designated Critical Habitat and the National Wetland Inventory (USFWS 2021b). In addition, regional floral and faunal field guides, such as the *Draft Vegetation Communities of San Diego County* (Oberbauer et al. 2008) and the Jepson Manual (Baldwin et al. 2012), were utilized in the classification of vegetation communities and identification of plant species and suitable habitats. ESA also leveraged existing information from the 2017 *Final Initial Study/Mitigated Negative Declaration* (IS/MND) for the Ramona Intergenerational Community Campus Project (Dudek 2017), which encompassed a larger area that included this study area, and the *13th Street Bridge Project Natural Environment Study* (NES) prepared by the California Department of Transportation (Caltrans) in 2018, which also encompassed a large portion of this study area; however, characterization of biological resources were updated where appropriate based on current site conditions (e.g., updated vegetation communities, aquatic resources). All of the literature sources and databases reviewed are cited in the References section below. Combined, the sources reviewed provided a comprehensive baseline from which to inventory the biological resources potentially occurring within the study area and general vicinity.

Field Surveys

On April 2, 2021, ESA biologists Brenda McMillan, Sonya Vargas, and Rosa Calvario conducted a general biological survey within the study area. The survey included a biological inventory, vegetation mapping, an aquatic resources delineation, as well as a rare plant survey. The survey consisted of walking the entire study area to characterize and map vegetation communities, document rare plants using a GPS with sub-meter accuracy, and gather an inventory of all plant and wildlife species observed. All areas within the study area were assessed for their potential to support special-status plant or wildlife species. The potential for special-status species to occur was based on the presence of suitable habitat, including soils, vegetation, previously recorded occurrences, topography and elevation, and existing land uses. Representative photographs of the study area are included in **Attachment B**.

ESA biologists also mapped aquatic resources, including waters and wetlands, detected within the study area that were potentially subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW. Methodology followed the USACE Regional Supplement to the *Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008). Detailed methodology is provided in the *Aquatic Resources Delineation Report* (**Appendix A**).

Rare Plant Surveys

Rare plant surveys were conducted by ESA biologists Brenda McMillan, Sonya Vargas, and Rosa Calvario on April 2, 2021 and ESA biologists Brenda McMillan and Jaclyn Catino-Davenport on June 14, 2021. Surveys were conducted within the known blooming periods to capture all species with potential to occur. Surveys were conducted throughout the study area using meandering transects, focusing on areas with the highest potential for rare plant species, as based on historical locations. Rare plant species detected within the study area were recorded using a GPS unit with sub-meter accuracy.

Burrowing Owl Surveys

Focused surveys for burrowing owl (*Athene cunicularia*) were conducted by ESA biologists Jaclyn Catino-Davenport and Brenda McMillan and interns Anna Millar and Rachel Le on April 15, May 13, June 3, and June 25, 2021. Surveys were conducted within the project site, plus a 150-meter (500-foot) buffer (burrowing owl survey area). The surveys consisted of four separate site visits with one visit between February 15 and April 15, and three visits at least three weeks apart between April 15 and July 15, with one of those visits after June 15, in accordance with CDFW protocol (CDFW 2012). All surveys were conducted within areas of suitable habitat between morning civil twilight and 10:00 AM during suitable weather conditions. Detailed methodology is provided in the *Results of 2021 Focused Burrowing Owl Surveys* (**Appendix B**).

Least Bell's Vireo Surveys

Focused surveys for least Bell's vireo (*Vireo bellii pusillus*) were conducted by ESA biologists Jaclyn Catino-Davenport, Anna Millar, Brenda McMillan, and Rachel Le on April 15; May 3, 13, 24; June 3, 15, 25; and July 7, 2021.

Surveys were conducted within the project site, plus a 150-meter (500-foot) buffer (least Bell's vireo survey area). The surveys consisted of eight separate site visits conducted between April 10 and July 31, in accordance with USFWS *Least Bell's Vireo Survey Guidelines* (2001). All surveys were conducted within areas of suitable habitat between dawn and 11:00 AM during suitable weather conditions. Detailed methodology is provided in the *Results of 2021 Focused Least Bell's Vireo Surveys* (**Appendix C**).

Fairy Shrimp Surveys

Focused surveys for listed fairy shrimp were conducted by Blackhawk Environmental in accordance with USFWS Pacific Southwest Region Survey Guidelines for the Listed Large Branchiopods (USFWS 2017). Wet-season surveys were conducted from February through April 2023, and included a survey of the project site to determine if pools support more than 3 centimeters of standing water within 24 hours after a rain event.

Following initial inundation of pools, surveys were performed at 7-day intervals and continued until the pools were dry. Blackhawk Environmental collected dry season samples on June 23, 2023. Dry season fairy shrimp surveys were conducted by Alden Environmental, Inc. in July and August 2023. Detailed methodology is provided in the *USFWS 90-Day Report of 2023 Wet and Dry Season Fairy Shrimp Surveys for the Paseo Norte Senior Affordable Housing Project* (**Appendix D**).

Regulatory Framework

The Regulatory Framework is provided in **Attachment C**, and includes a summary of the federal, state, and local environmental regulations that govern the biological resources applicable to the study area. The Regulatory Framework also provides a summary of other state and local environmental guidelines or listings that evaluate the rarity of species or the habitats they depend on.

Existing Conditions

The study area is located within the community of Ramona in unincorporated San Diego County. The study area is comprised of undeveloped land. Along the northern portion of the study area, Santa Maria Creek and its associated riparian vegetation communities traverse the study area, flowing from east to west. Other native habitats within the study area are relatively disturbed and are located on sandy loam soils and gravelly Riverwash substrate. A utility easement/line bisects the center of the study area, which runs northeast to southwest, and two utility lines run along the eastern and western study area buffers, which run northwest to southeast. Disturbances to the project site associated with the easement, transient activities, and recreational use include soil disturbance, high non-native species cover, litter, encampments, and compaction from regular trail use. A built culvert and dissipation pool occurs on the southwest corner of the study area adjacent to the unpaved road. The study area occurs on relatively flat topography that has an elevation range of approximately 1,410 to 1,425 feet above mean sea level (AMSL). Surrounding land uses include natural open space areas, residential development, public, and industrial and commercial uses (e.g., public library, automotive body repair, towing and wrecking yards, etc.).

The study area is located within the Draft North County Multiple Species Conservation Plan (NCMSCP) (County of San Diego 2009). Although not yet formally adopted, the North County MSCP is one of several large habitat conservation planning efforts in San Diego County, and encompasses the northwestern unincorporated areas of the County. This comprehensive conservation plan is intended to protect biodiversity and enhance the quality of life in the San Diego region while providing economic benefits by reducing constraints on future development outside of proposed preserve areas and decreasing the costs of compliance with federal and state laws protecting biological resources. The subarea plan includes Pre-Approved Mitigation Areas (PAMAs) representing areas with highest biological value in the NCMSCP area. The NCMSCP encourages development outside of the PAMAs (with lower mitigation ratios for impacts outside of the PAMAs) and encourages preservation within the PAMAs (with higher mitigation ratios for impacts inside of the PAMAs). The proposed project falls within the proposed NCMSCP area but outside of the PAMAs (Caltrans 2018). However, since the NCMSCP is not yet approved, the project follows the County's Guidelines for Determining Significance for Biological Resources (San Diego County 2010).

Soils

Based on a review of the U.S. Department of Agriculture (USDA) Web Soil Survey for the area (**Figure 4**), the study area consists of Fallbrook sandy loam, 15 to 30 percent slopes, eroded (FaE2); Placentia sandy loam, 5 to 9 percent slopes, eroded (PeC); Riverwash (Rm); and Visalia sandy loam, 0 to 2 percent slopes (VaA). Riverwash occurs on the northern end of the study area and aligns with Santa Maria Creek.

Natural Communities and Land Cover Types

Natural communities and land use types that occur within the study area were mapped in the field and characterized using the *Draft Vegetation Communities of San Diego County* (Oberbauer et al. 2008). A total of seven vegetation communities and two land cover types were mapped. These natural communities and land cover types include Diegan coastal sage scrub-inland form, salt grass grassland, non-native grassland, non-native grassland: broadleaf-dominated, disturbed emergent wetland, southern cottonwood-willow riparian forest, southern willow scrub, disturbed, and urban/developed.

These natural communities and land cover types are listed in **Table 2**, depicted in **Figure 5,** and described in further detail below. A complete list of plant species detected within the study area is presented in **Attachment D**.

TABLE 2
NATURAL COMMUNITIES AND LAND COVER TYPES WITHIN THE STUDY AREA

Natural Community/Land Cover Type[1]	Project Site (acres)	100-Foot Buffer (acres)	Total (acres)
Aquatic/Riparian			
Southern Cottonwood-Willow Riparian Forest (61330)	0.90	0.57	1.47
Southern Willow Scrub (63320)	0.91	0.49	1.40
Disturbed Emergent Wetland (52440)	0.01	0.22	0.23
Salt Grass Grassland (42130)	0.68	0.12	0.80
Terrestrial			
Diegan Coastal Sage Scrub - Inland Form (32520)	-	0.06	0.06
Disturbed/Developed			
Non-Native Grassland (42200)	0.36	0.04	0.40
Non-Native Grassland: Broadleaf-Dominated (42210)	5.22	2.18	7.40
Disturbed (11300)	0.04	-	0.04
Urban/Developed (12000)	0.71	3.07	3.78
TOTAL	**8.83**	**6.75**	**15.58**

NOTE:

[1] Oberbauer et al. 2008

SOURCE: ESA 2022

Southern Cottonwood-Willow Riparian Forest (61330)

Southern cottonwood-willow riparian forest occurs on the northern portion of the study area and is associated with Santa Maria Creek. Trees dominating the canopy cover include black willow (*Salix gooddingii*), arroyo willow (*Salix lasiolepis*), and western cottonwood (*Populus fremontii*), while the understory includes mulefat (*Baccharis salicifolia*), herbs such as mugwort (*Artemisia douglasiana*), stinging nettle (*Urtica dioica*), non-native grasses such as smilo grass (*Stipa miliacea* var. *miliacea*), giant reed (*Arundo donax*), and pockets of non-vegetated riverwash substrate.

Southern cottonwood-willow riparian forest is considered a sensitive natural community by CDFW (61.130.22 – *Populus fremontii – Salix laevigata/Salix lasiolepis – Baccharis salicifolia*) (CDFW 2022).

Southern Willow Scrub (63320)

Southern willow scrub occurs on the northern portion of the study area and is associated with the Santa Maria Creek floodplain. Species dominating this natural community include arroyo willow, sandbar willow (*Salix exigua*), mulefat, a few black willows, and a single cottonwood tree. The understory is dominated by salt grass (*Distichlis spicata*) and supported patches of native species such stinging nettle and mugwort and non-native species including but not limited to short pod mustard (*Hirschfeldia incana*, wild radish (*Raphanus sativus*) and several species of non-native grasses (e.g., *Bromus* spp., *Avena* spp.). Additionally, a small patch of southern willow scrub occurs near the southwest corner of the study area just west of Maple Street which is associated with a drain that directs water under 13th Street. A strip of southern willow scrub also occurs along a built drainage fed by runoff from the end of the 12th Street cul-de-sac (as shown in Figure 5). Although a small portion of this vegetation community overhangs onto the project site, the majority of the community occurs within an off-site portion of the study area (i.e., within the 100-foot buffer) on fenced private property which was not accessed during the surveys.

Southern willow scrub is considered a sensitive natural community by CDFW (61.201.01 – *Salix lasiolepis*) (CDFW 2022).

Disturbed Emergent Wetland (52440)

Emergent wetlands are typically persistent wetlands dominated by low growing, perennial wetland species. A disturbed emergent wetland which is a built retention basin occurs as a concave depression in the southwest corner of the study area along the east side of 13th Street and north of the Ramona Public Library parking lot. This emergent wetland is considered disturbed and dominated by non-native grasses and species such as broad leaf filaree (*Erodium botrys*) and has highly disturbed soils that contain construction debris (e.g. concrete, asphalt). Native plant species associated with this community include water pygmyweed (*Crassula aquatica*), hairy clover fern (*Marsilea vestita*), pale spike-rush (*Eleocharis pacifica*), grass poly (*Lythrum hyssopifolium*), Mexican speedwell (*Veronica peregrina* var. *xalapensis*), fringed willowherb (*Epilobium ciliatum*), chufa (*Cyperus esculentus*), and seaside barley (*Hordeum marinum*) in the north corner of the wetland. The wetland is dominated by non-native species such as spiny-leaf sow-thistle (*Sonchus asper*), broad leaf filaree (*Erodium botrys*), curly dock (*Rumex crispus*), and rat-tail six-weeks grass (*Festuca myuros*) along the basin bottom. In addition, small-flower

tamarisk (*Tamarisk parviflora*), was observed within this community along the eastern edge of the wetland. Due to the high cover of non-native species, as well as the presence of asphalt and concrete debris within the soil, this vegetation community was classified as disturbed. This wetland supports some vernal pool indicator species (i.e., water pygmyweed, grass poly and hairy clover fern) at the lowest elevation in the basin where water remains ponded; however, it does not function like a vernal pool as water ponds more frequently and for longer durations than a natural vernal pool and is therefore classified as a disturbed emergent wetland.

Disturbed emergent wetland is considered a sensitive natural community by CDFW (45.230.06 – *Eleocharis macrostachya – Marsilea vestita*) (CDFW 2022).

Salt Grass Grassland (42130)

This vegetation community occurs near the middle of the study area and is associated with Santa Maria Creek. Salt grass grassland is a native grassland consisting of salt grass with scattered forbs and grasses. Salt grass makes up greater than 50 percent of the cover, while 40 percent of cover consists of other native species including Douglas' mugwort (*Artemisia douglasiana*), Mexican rush (*Juncus mexicanus*), clustered field sedge (*Carex praegracilis*), southern tarplant (*Centromadia parryii* ssp. a*ustralis*, CRPR 1B.1), and Hooker's evening-primrose (*Oenothera elata*). The remaining 10 percent of cover consisted of non-native plant species such as spiny-leaf sow-thistle (*Sonchus asper*), tocalote (*Centaurea melitensis*), Italian thistle (*Carduus pycnocephalus*), wild radish (*Raphanus sativus*), and short-pod mustard (*Hirschfeldia incana*).

Diegan Coastal Sage Scrub – Inland Form (32520)

One small patch of Diegan coastal sage scrub occurs on the southwest corner of the study area as a strip above the disturbed emergent wetland. This vegetation community primarily consists of California buckwheat (*Eriogonum californicum*), California sagebrush (*Artemisia californica*), and deerweed (*Acmispon glaber*).

Diegan coastal sage scrub is considered a sensitive natural community by CDFW (32.110.05 *Artemisia californica – Eriogonum fasciculatum*) (CDFW 2022).

Non-native Grassland: Broadleaf Dominated (42210)

This vegetation community makes up the majority of the site, occurring on the southern portion as well as in the northern portions of the study area. During surveys, 96 plant species were documented of which 54 or 56% are considered non-native and 44 or 42% are considered native, and this percentage can be applicable to this community type. Please see Attachment D for a complete list of species observed within the study area. Vegetation consists of a mixture of native and non-native grasses: salt grass, foxtail brome (*Bromus madritensis*), ripgut brome (*Bromus diandrus*), seaside barley, and wild oat (*Avena* spp.). Non-native broadleaf species include broad leaf filaree, stinkwort (*Dittrichia graveolens*), Italian thistle, blessed milk thistle (*Silybum marianum*), smooth cat's ear (*Hypochaeris glabra*), tocalote, wild radish, and short-pod mustard. This vegetation community also includes Peruvian pepper tree (*Schinus molle*) and Mexican palo verde (*Parkinsonia aculeata*).

Non-native Grassland (42200)

Non-native grassland occurs in two patches within the study area: one is located in the northwest portion, adjacent to Maple Street, and the other occurs directly adjacent to and parallel to Maple Street in the southwest corner. Both patches consist primarily of ripgut brome, wild oat (*Avena* sp.), Bermuda grass (*Cynodon dactylon*), and seaside barley.

Disturbed (11300)

One small patch of disturbed habitat occurs in a small patch located just east of Maple Street. This vegetation community is a monoculture of short-pod mustard and wild radish.

Urban/Developed (12000)

This land cover type consists of developed areas, paved roads and lots, buildings, areas with concrete slabs and rip rap, and disturbed open areas directly adjacent to roads, including areas with ornamental trees such as Peruvian pepper trees and eucalyptus (*Eucalyptus* sp.). In addition, this land cover type includes a built culvert and dissipation pool, which contains planted species including deergrass (*Muhlenbergia rigens*), and San Diego sedge (C*arex spissa*).

Aquatic Resources

Aquatic resources within the study area include Santa Maria Creek and its alluvial terrace, and a disturbed emergent wetland. Santa Maria Creek includes a vegetated channel, riverine habitat (southern cottonwood-willow riparian forest), as well as adjacent southern willow scrub on the southern floodplain. Santa Maria Creek is considered a Resources Protection Ordinance (RPO)[1] wetland as defined in the San Diego County Code of Regulatory Ordinance Chapter 6 Section 86.601 subsections (q)(1)(aa-cc)

The disturbed emergent wetland includes willows on the edges of the constructed stormwater detention basin and a small patch of southern willow scrub on the northern boundary that is fed by the detention basin as it drains and flows under 13th Street via a small culvert pipe. This wetland supports some vernal pool indicator species (i.e., water pygmyweed, grass poly and hairy clover fern) at the lowest elevation in the basin where water remains ponded; however, it does not function like a vernal pool as water ponds more frequently and for longer durations than a natural vernal pool and is therefore classified as a disturbed emergent wetland. The disturbed emergent wetland is considered a RPO wetland. Although it is a human-made structure, is small and geographically isolated from other wetland systems, is not a vernal pool, and does not have substantial or locally important populations of wetland dependent sensitive species, it does have biological function or value as wetlands.

[1] The San Diego County Code of Regulatory Ordinances, including the RPO, restrict to varying degrees impacts to various natural resources including wetlands, wetland buffers, floodplains, steep slopes, sensitive habitat lands and historical sites.

An engineered bio filtration swale (bio swale) within the 100-foot buffer area was found on the west side of the 13th Street between dirt driveways running north to south and includes a concrete culvert at the north end. It captures runoff from 13th Street and adjacent businesses and driveways. The swale is rock lined with deer grass and San Diego sedge planted along the bottom, and there is no connection to Santa Maria Creek. The bio swale is not considered a RPO wetland because it is a solely human-made stormwater feature with culverts created to capture road run-off before it enters Santa Maria Creek, it was found to support negligible biological functions, it did not meet the three wetland criteria (no hydric soils), it is small and geographically isolated from other wetland systems, it is not a vernal pool, and it did not support substantial or locally important populations of wetland dependent species or other sensitive species (as defined in the San Diego County Code of Regulatory Ordinance Chapter 6 Section 86.601 subsections (q)(2)(aa)(i-iv).

Culvert 1 is an inaccessible road drainage located off-site that runs parallel to the eastern boundary of the project at the end of 12th Street. The culvert drains road runoff from 12th Street and onto neighboring property following the fence line where it disappears into non-native grassland. It has a concrete apron off 12th Street and is approximately 260 feet long. The southern willow scrub dripline overhangs into the project site, but is not rooted within the project site boundary and therefore only the dripline is included in the aquatic resources analysis. There is no connection to Santa Maria Creek and the culvert and willow trees are located off-site. Although soil pits were not taken at this location due to inaccessibility of the drainage feature on the adjacent fenced property, for purposes of this analysis, it is assumed that this area could be considered a waters of the state. However, Culvert 1 is not considered a RPO wetland because it exists solely due to a human-made structure, has negligible biological function or value as wetlands, is small and geographically isolated from other wetland systems, is not a vernal pool, and does not have substantial or locally important populations of wetland dependent sensitive species as defined in the San Diego County Code of Regulatory Ordinance Chapter 6 Section 86.601 subsections (q)(2)(aa)(i-iv).

A detailed discussion of aquatic resources is summarized in *Aquatic Resources Delineation Report for the Paseo Norte Senior Affordable Housing Project* (Appendix A). USACE jurisdiction on-site includes Santa Maria Creek, which supports 0.178 acre of potentially jurisdictional federal waters of the U.S (as shown in **Figure 6**). RWQCB jurisdiction on-site includes Santa Maria Creek, the disturbed emergent wetland, the bio swale, and Culvert 1, which supports 0.607 acre of potential waters of the state (as shown in **Figure 7**). CDFW jurisdiction on-site includes Santa Maria Creek, associated riparian vegetation, the disturbed emergent wetland, the bio swale, and Culvert 1, which supports 3.538 acres of potential CDFW resources regulated under California Fish and Game Code (FGC) Section 1600 (as shown in **Figure 8**).

General Wildlife Observed

The upland and riparian communities within the study area provide suitable habitat for a variety of wildlife species including reptiles, birds, and mammals, and many species were observed during surveys conducted in the study area. A complete list of wildlife species detected within the study area is presented in Attachment D.

Sensitive Natural Communities

Sensitive natural communities are designated as such by various resource agencies, such as the CDFW, or in local policies and regulations. These communities are generally considered to have important functions or values for wildlife and/or are recognized as declining in extent or distribution and may be considered threatened enough to warrant some level of protection. Sensitive natural communities include those that are identified in the CDFW *California Natural Community List* (CDFW 2022). The CDFW state rank denotes the rarity and endangerment of a vegetation type within the state based on NatureServe Conservation Status Ranks (NatureServe 2022) as described below, with S1 through S3 considered to be a sensitive natural community by CDFW.

State Conservation Rank

S1 = Critically Imperiled – At very high risk of extirpation due to very restricted range, very few populations or occurrences, very steep declines, severe threats, or other factors.

S2 = Imperiled – At high risk of extirpation due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.

S3 = Vulnerable – At moderate risk of extirpation due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.

S4 = Apparently Secure – At a fairly low risk of extirpation due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.

S5 = Secure - At very low or no risk of extirpation due to a very extensive range, abundant populations or occurrences, with little to no concern from declines or threats.

Based on the state ranks, two sensitive natural communities occur within the study area: southern cottonwood-willow riparian forest and southern willow scrub (Figure 5). In addition, per the County's Guidelines for Determining Significance for Biological Resources, wetland and riparian habitats (including emergent wetland, southern cottonwood-willow riparian forest and southern willow scrub), salt grass grassland (i.e., native grassland), and Diegan coastal sage scrub are sensitive habitats, and non-native grassland is a naturalized habitat which if impacted, require mitigation at specified replacement ratios. Disturbed habitat under the County's Guidelines for Determining Significance for Biological Resources is not considered sensitive and does not require mitigation for impacts to this habitat.

Special-Status Plants

Of the 72 special-status plant species considered for their potential to occur within the study area, 54 species are not expected to occur because the study area is outside of the known elevation range for these species and/or lacks suitable habitat to support these species. A total of 17 species were assessed as having low potential to occur due to the presence of marginally suitable habitat and/or soils; however, none of the special-status plant species with a low potential to occur were observed during previous surveys (Dudek 2017, Caltrans 2018) or

focused surveys conducted in 2021. Species determined to be unlikely or to have only a low potential to occur are not discussed further in this analysis. Species observed are discussed below.

One special-status plant species, southern tarplant (CRPR 1B.1, County List A), was observed within the study area during focused surveys in 2021. Approximately 3,206 southern tarplant individuals were observed on-site within a 0.032-acre area in the northern and eastern portions of the study area. Direct counts were estimates, and southern tarplant population size can fluctuate depending on various factors (e.g., natural fluctuations in population size of this annual species, precipitation, and drought). This species was also observed on-site during previous surveys by Caltrans in 2018 (Caltrans 2018). Special-status plant species observed on-site are shown in **Figure 9**. No other special-status plant species were observed within the study area during 2021 focused surveys. **Attachment E** provides details of each special-status species, their habitat, and their potential to occur within the study area.

Special-Status Wildlife

Of the 61 special-status wildlife species considered regarding their potential to occur within the study area, 32 species were assessed as unlikely to occur because the study area lacks suitable habitat to support these species and/or is outside of the known geographic or elevational range for these species. A total of 13 species were assessed as having low potential to occur, and six species were assessed having as moderate potential to occur. Species determined to be unlikely or to have only a low potential to occur are not discussed further in this analysis. Species observed or that have a moderate potential to occur are discussed below.

ESA conducted focused surveys for burrowing owl and least Bell's vireo in 2021 (Appendices B and C). Eight special-status bird species were observed within the study area during 2021 surveys, including least Bell's vireo (Federal Endangered [FE], State Endangered [SE], County Group 1), yellow warbler (*Setophaga petechia*) (Species of Species Concern [SSC], County Group 2), Cooper's hawk (*Accipiter cooperii*) (State Watch List, County Group 1 Species), red-shouldered hawk (*Buteo lineatus*) (County Group 1 Species), and western bluebird (*Sialia mexicana*) (County Group 2 Species), as well as observations of species flying over the study area, including double-crested cormorant (*Phalacrocorax auritus*) (County Group 2 Species), turkey vulture (*Cathartes aura*) (County Group 1 Species), and white-tailed kite (*Elanus leucurus*) (State Fully Protected, County Group 1 Species). One special-status reptile species, Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi*) (State Watch List, County Group 2 Species), was observed within the study area during previous surveys (Caltrans 2018). Additionally, Blackhawk Environmental conducted focused fairy shrimp surveys in 2023 (Appendix D). Wet season surveys were completed from February through April 2023; no listed fairy shrimp were found. Dry season surveys were also conducted, which included dry season sample collection on June 23, 2023, and cyst identification and rearing in July and August 2023; no listed fairy shrimp were found. During the 2023 fairy shrimp surveys conducted by Blackhawk Environmental, approximately three dozen western spadefoot tadpoles (SSC, County Group 2) were detected in a pool along a dirt road outside of the southern boundary of the study area. Special-status wildlife species observed on-site are shown in **Figure 10**. No other special-status wildlife species were observed within the study area during the 2021 focused surveys. In addition, other special-status species that were not observed but have a moderate potential to occur within the

project site due to the presence of suitable habitat included coastal whiptail (*Aspidoscelis tigris stejnegeri*), vermilion flycatcher (*Pyrocephalus rubinus flammeus*), Townsend's big-eared bat (*Corynorhinus townsendi*), western red bat (*Lasiurus blossevillii*), Yuma myotis (*Myotis yumanensis*), and western mastiff bat (*Eumops perotis californicus*). **Attachment F** provides the sensitivity listing of each special-status species, their habitat preferences, and their potential to occur within the study area.

Wildlife Movement

Effective wildlife movement is essential for dispersal, genetic exchange, migration, foraging, and breeding. Wildlife movement corridors or habitat linkages are linear habitat features that connect blocks of habitat that are otherwise disconnected. Functional wildlife movement corridors are especially important in highly fragmented habitat, such as developed or agricultural areas. Wildlife movement corridors are generally used by terrestrial animals, although they may also be important for aquatic species, avian dispersal, and as avenues for genetic exchange in plants. On a regional scale, movement corridors can include bird flyways, such as wetland areas that provide essential habitat to be used as a stopover for several days during migration.

The study area lies within the community of Ramona in unincorporated San Diego County (**Figure 11**). The study area is not identified as a Missing Linkage in the South Coast Missing Linkages report (South Coast Wildlands 2008). However, the study area is identified as a CDFW Terrestrial Connectivity Areas of Conservation Emphasis (ACE), Connectivity Rank 5 (Irreplaceable and Essential Corridors) (CDFW 2021c). CDFW's Terrestrial Connectivity dataset was developed to support conservation planning efforts to evaluate the relative contribution of an area to terrestrial connectivity based on the results of statewide, regional, and other connectivity analyses by summarizing information on terrestrial connectivity by ACE hexagon including the presence of mapped corridors or linkages and the juxtaposition to large, contiguous, natural areas.

The study area is located within the community of Ramona and is surrounded by residential and commercial development. There is limited habitat within the majority of the study area; however, Santa Maria Creek and its associated native riparian habitat traverses the northern portion of the study area, flowing from east to west. Santa Maria Creek is also an important regional water source that attracts a number of avian species, and the riparian habitat provides important resources for wildlife, such as foraging habitat, nesting and den sites, and cover. Regional wildlife movement would be constrained through the study area from the north or south due to the surrounding development and other barriers to movement such as major roadways (e.g., Main Street to the south) that are frequented by vehicles that are hazards to wildlife. However, Santa Maria Creek and its associated riparian habitat facilitate regional movement in an east-west direction. Thus, from a regional perspective, the study area functions as a part of a regional wildlife movement corridor.

On a local scale, while there is limited habitat within the majority of the study area, Santa Maria Creek and its associated riparian habitat provide live-in and movement habitat for a variety of invertebrate, amphibian, reptile, bird, and mammal species. Human activity and residential and commercial development within the surrounding community do not provide suitable habitat or resources for most native wildlife, with the exception of a few wide-

ranging species that are adapted to urban environments (e.g., raccoon, skunk, coyote, some birds). Thus, local wildlife movement through the study area would be concentrated around Santa Maria Creek.

In summary, the study area supports live-in and movement habitat for species on a local scale, and likely functions to facilitate wildlife movement for a number of species on a regional scale.

Discussion of Impacts

Issue 1: Would the proposed project 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 or U.S. Fish and Wildlife Service?

Special-Status Plants

One special-status plant species, southern tarplant (CRPR 1B.1, County List A), was observed within the study area during focused surveys in 2021. Approximately 3,206 southern tarplant individuals were observed on-site within a 0.032-acre area in the northern and eastern portions of the study area. Direct counts were estimates, and southern tarplant population size can fluctuate depending on various factors (e.g., natural fluctuations in population size of this annual species, precipitation, and drought); thus, impacts were analyzed based on area of the population. The project will avoid approximately 0.027 acre of southern tarplant; however, approximately 0.005 acre of southern tarplant would be directly impacted by the project (i.e., 38 percent of the southern tarplant within the project site, and 17 percent of the total southern tarplant mapped within the study area), including direct loss of individuals (**Figure 12**). Impacts to southern tarplant would be potentially significant. However, implementation of MM-BIO-1 would reduce impacts to a less-than-significant level.

Special-Status Wildlife

Eight special-status bird species were observed within the study area during 2021 surveys, including least Bell's vireo (FE, SE, County Group 1), yellow warbler (SSC, County Group 2), Cooper's hawk (State Watch List, County Group 1), red-shouldered hawk (County Group 1), and western bluebird (County Group 2), as well as observations of species flying over the study area, including double-crested cormorant (County Group 2), turkey vulture (County Group 1), and white-tailed kite (State Fully Protected, County Group 1). One special-status reptile species, Belding's orange-throated whiptail (State Watch List, County Group 2), was observed within the study area during previous surveys (Caltrans 2018). One special-status amphibian species, western spadefoot (SSC, County Group 2), was observed outside of the southern boundary of the study area during the 2023 fairy shrimp surveys conducted by Blackhawk Environmental; however, no impacts will occur to this species, since it does not occur within the project site or surrounding study area. In addition, other special-status species that were not observed but have a moderate potential to occur within the project site due to the presence of suitable habitat included coastal whiptail, vermilion flycatcher, Townsend's big-eared bat, western red bat, Yuma myotis, and western mastiff bat. Special-status wildlife species observed on-site are shown in relation to the project's impact

footprint in **Figure 13**. As these species are mobile and some species were observed passing through the project site, such as birds flying through, the points indicated in Figure 13 are not necessarily indicative of a direct impact to that species. Rather, impacts to the habitat that these species inhabit are addressed in this analysis.

The project was designed to avoid and minimize impacts to sensitive biological resources, specifically including Santa Maria Creek and its associated native riparian habitat, and to provide setback buffers from development for the protection of these resources. The project includes a 150-foot setback from the main channel of Santa Maria Creek and its associated southern cottonwood-willow riparian forest, and a 50-foot setback from the nearest southern willow scrub mapped within the outer floodplains to the south of the main channel of the creek. These areas provide the highest quality native suitable habitat for the majority of the special-status species observed or that have a moderate potential to occur on-site, including least Bell's vireo, yellow warbler, Cooper's hawk, red-shouldered hawk, western bluebird, white-tailed kite, coastal whiptail, vermilion flycatcher, Townsend's big-eared bat, western red bat, Yuma myotis, and western mastiff bat. Thus, the project would avoid direct impacts (removal of habitat and direct mortality/loss of individuals) to these species and their habitat. The project would directly permanently impact 0.24 acre of salt grass grassland, 0.12 acre of non-native grassland, and 4.81 acres of non-native grassland: broadleaf-dominated within the central and southern portions of the project site, which may be used for additional foraging habitat for special-status bird and bat species that inhabit Santa Maria Creek and its associated native riparian habitat. Impacts to foraging habitat for special-status wildlife species would be potentially significant. Implementation of MM-BIO-7 would reduce impacts below a level of significance. Indirect impacts would be minimized by the setback, and special-status wildlife using this habitat are likely already relatively adapted to human activity due to the extensive existing development within the immediate vicinity north and south of the creek. There will be greater noise and human activity during construction, and although these disturbances would be temporary and would be minimized by the setback buffers, indirect impacts to special-status wildlife species would be potentially significant. Implementation of MM-BIO-2, MM-BIO-3, MM-BIO-4, and MM-BIO-5 would avoid or minimize indirect impacts during construction. Avoidance of the breeding seasons and/or preconstruction surveys to confirm if special-status wildlife species are present or if nesting is occurring, establishing species-specific setback buffers, and/or conducting monitoring during construction to confirm no impacts to special-status wildlife species or established nests will be implemented to reduce impacts below a level of significance.

Upon project operation, potential disturbances to wildlife would be similar to those existing uses in the surrounding vicinity where development already occurs to the north and south of Santa Maria Creek. Although the project trail is set back from the native riparian habitat, there may be some limited disturbance associated with increased human activity from use of the trail. Additionally, the trail will allow for equestrian uses. The introduction of horses, and specifically horse manure, has the potential to attract brown-headed cowbirds (*Molothrus ater*). Brown-headed cowbirds are known to parasitize the nests of other birds, and this species was documented during the biological surveys. Increased attraction of brown-headed cowbirds could have an adverse effect on special-status bird species, such as the least Bell's vireo (FE, SE). Thus, indirect impacts to special-status wildlife would be potentially significant. However, implementation of MM-BIO-6 would reduce impacts to a less-than-significant level.

Double-crested cormorant and turkey vulture were observed flying over the project site, but are not expected to nest on-site due to lack of suitable nesting habitat, and impacts to these species as a result of the project would be less than significant.

Issue 2: Would the proposed project 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 US Fish and Wildlife Service?

Sensitive Natural Communities

Two sensitive natural communities occur within the study area: southern cottonwood-willow riparian forest and southern willow scrub. In addition, per the County's Guidelines for Determining Significance for Biological Resources, wetland and riparian habitats (including emergent wetland, southern cottonwood-willow riparian forest and southern willow scrub), salt grass grassland (i.e., native grassland), and Diegan coastal sage scrub are sensitive habitats, and non-native grassland is a naturalized habitat which if impacted, require mitigation at specified replacement ratios. Disturbed habitat under the County's Guidelines for Determining Significance for Biological Resources is not considered sensitive and does not require mitigation for impacts to this habitat.

The project was designed to avoid and minimize impacts to sensitive biological resources, specifically including these sensitive natural communities, and to provide setback buffers from development for the protection of these resources. The project completely avoids impacts to the southern cottonwood-willow riparian forest, disturbed emergent wetland, and Diegan coastal sage scrub communities on-site. However, the project would permanently impact 0.24 acre of salt grass grassland and a small 0.02-acre patch of southern willow scrub within the eastern portion of the project site (as summarized in **Table 3** below, and shown in **Figure 14**). The majority of the southern willow scrub community that will be impacted occurs within an off-site portion of the study area (i.e., within the 100-foot buffer) on fenced private property which was not accessed during the surveys; however, a small portion of this vegetation community overhangs onto the project site, which will be impacted by the project. Additionally, the project would permanently impact two naturalized communities, including 0.12 acre of non-native grassland and 4.81 acres of non-native grassland: broadleaf-dominated, within the southern portion of the project site. Impacts to salt grass grassland, southern willow scrub, non-native grassland, and non-native grassland: broadleaf-dominated would be potentially significant. Implementation of MM-BIO-7 would reduce impacts to a less-than-significant level.

TABLE 3
IMPACTS TO NATURAL COMMUNITIES AND LAND COVER TYPES WITHIN THE STUDY AREA

Natural Community/Land Cover Type[1]	Project Site (acres)	100-Foot Buffer (acres)	Total (acres)	Impacts (acres)	Avoided (acres)	Mitigation Ratio	Mitigation Required (acres)
Aquatic/Riparian							
Southern Cottonwood-Willow Riparian Forest (61330)	0.90	0.57	1.47		1.47	3:1	None
Southern Willow Scrub (63320)	0.91	0.49	1.40	0.02	1.38	3:1	0.06
Disturbed Emergent Wetland (52440)	0.01	0.22	0.23		0.23	3:1	None
Salt Grass Grassland (42130)	0.68	0.12	0.80	0.24	0.56	3:1	0.72
Terrestrial							
Diegan Coastal Sage Scrub - Inland Form (32520)	-	0.06	0.06		0.06	1:1	None
Disturbed/Developed							
Non-Native Grassland (42200)	0.36	0.04	0.40	0.12	0.28	0.5:1	0.06
Non-Native Grassland: Broadleaf-Dominated (42210)	5.22	2.18	7.40	4.81	2.59	0.5:1	2.41
Disturbed (11300)	0.04	-	0.04		0.04	None	None
Urban/Developed (12000)	0.71	3.07	3.78	0.68	3.10	None	None
TOTAL	**8.83**	**6.75**	**15.58**	**5.87**	**9.71**		

NOTE:

[1] Oberbauer et al. 2008

SOURCE: ESA 2022

CDFW Riparian Habitat

CDFW jurisdiction on-site includes Santa Maria Creek, associated riparian vegetation, the disturbed emergent wetland, the bio swale, and Culvert 1, which supports 3.538 acres of potential CDFW resources regulated under FGC Section 1600.

The project was designed to avoid and minimize impacts to riparian habitat and to provide setback buffers from development for the protection of these resources. However, as stated above, the project would permanently impact a small 0.02-acre patch of southern willow scrub within the eastern portion of the project site, which is potentially subject to CDFW jurisdiction (**Figure 15**). Although the majority of the community occurs within an off-site portion of the study area (i.e., within the 100-foot buffer) on fenced private property which was not accessed during the surveys, a small portion of this vegetation community overhangs onto the project site, which will be impacted by the project. It is not anticipated that roots of riparian vegetation would be impacted (i.e., since the vegetation is rooted on the adjacent property), but trimming will likely occur. Impacts to southern willow

scrub would be potentially significant. However, implementation of MM-BIO-7 would reduce impacts to a less-than-significant level.

Issue 3: Would the proposed project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal) through direct removal, filling, hydrological interruption, or other means?

USACE jurisdiction on-site includes Santa Maria Creek, which supports 0.178 acre of potentially jurisdictional federal waters of the U.S. RWQCB jurisdiction on-site includes Santa Maria Creek, the disturbed emergent wetland, the bio swale, and Culvert 1, which supports 0.607 acre of potential waters of the state; however, it should be noted that it is unlikely that the RWQCB would take jurisdiction over the disturbed emergent wetland and bio swale as those are constructed features to improve water quality per the County's National Pollutant Discharge Elimination System (NPDES) permit.

The project would not impact USACE jurisdictional waters of the U.S. or wetlands (as shown in **Figure 16**), or RWQCB jurisdictional waters of the State or wetlands (as shown in **Figure 17**). Therefore, no impacts would occur to protected wetlands and no mitigation is required.

Issue 4: Would the proposed project 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?

Regional Wildlife Movement

The study area supports live-in and movement habitat for species on a local scale, and Santa Maria Creek and its associated native riparian habitat likely functions to facilitate regional wildlife movement. The project was designed to avoid and minimize impacts to sensitive biological resources, specifically including Santa Maria Creek and its associated native riparian habitat, and to provide setback buffers from development for the protection of these resources (as shown in **Figure 18**). The project includes a 150-foot setback from the main channel of Santa Maria Creek and its associated southern cottonwood-willow riparian forest, and a 50-foot setback from the nearest southern willow scrub mapped within the outer floodplains to the south of the main channel of the creek. Thus, there would be no direct impacts to the Santa Maria Creek regional wildlife movement corridor.

Indirect impacts would be minimized by the setback, and wildlife using this habitat for regional movement are likely already relatively adapted to human activity due to the extensive existing development within the immediate vicinity north and south of the creek. There will be greater noise and human activity during construction; however, these disturbances would be temporary, would comply with the requirements of local noise and lighting ordinances, and would not inhibit long-term regional wildlife movement. Upon project operation, potential disturbances to wildlife would be similar to those existing uses in the surrounding vicinity where development already occurs to the north and south of Santa Maria Creek. Although the project trail is

setback from the native riparian habitat, there may be some limited disturbance associated with increased human activity from use of the trail. Thus, indirect impacts to regional wildlife movement would be potentially significant. However, implementation of MM-BIO-8 would reduce impacts to a less-than-significant level.

Nesting Birds and Native Wildlife Nursery Sites

The project site supports trees and shrubs that provide habitat suitable for bird nesting. The removal of vegetation during the breeding season for construction of the proposed project may result in the disturbance of nesting birds (passerine and raptors) protected by the Migratory Bird Treaty Act (MBTA) and FGC Sections 3503, 3503.5, and 3513. Impacts to nesting birds would be potentially significant. However, implementation of MM-BIO-3 would reduce impacts to a less-than-significant level.

If present on-site, roosting bats would inhabit the riparian woodland habitat which will be avoided by the project, and no direct impacts would occur. Indirect impacts to roosting bats during construction activities would be temporary on an intermittent basis. If present on-site, the roosting bat species are already adapted to living in an urbanized setting with the existing night lighting in the vicinity from the adjacent developed areas and traffic along roads. Although portions of the project site would have an increase in lighting, these areas do not contain vegetation or have suitable habitat for roosting bat species, and lighting would be directed away from habitat areas. The incremental addition of noise would be similar to existing conditions, and a change in the on-site operational noise levels and associated human activities would be low and would not diminish wildlife use by roosting bat species that are already adapted to living in an urbanized setting. Thus, indirect impacts from lighting, noise, and human activity during project operation would not diminish long-term survival of roosting bat species, and therefore would not be significant. Additionally, MM-BIO-4 is included to address potential indirect impacts to special-status bats to a less-than-significant level if construction cannot avoid the maternity roosting season.

Issue 5: Would the proposed project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The San Diego County Code of Regulatory Ordinances, including the RPO, restrict to varying degrees impacts to various natural resources including wetlands, wetland buffers, floodplains, steep slopes, sensitive habitat lands and historical sites.

The project was designed to avoid and minimize impacts to sensitive biological resources, specifically including Santa Maria Creek and its associated native riparian habitat, and to provide setback buffers from development for the protection of these resources. The project includes a 150-foot setback from the main channel of Santa Maria Creek and its associated southern cottonwood-willow riparian forest, and a 50-foot setback from the nearest southern willow scrub mapped within the outer floodplains to the south of the main channel of the creek. The project avoids impacts to wetlands, including the disturbed emergent wetland mapped in the southwest portion of the project site. The project also includes a 50-foot setback from the disturbed emergent wetland. Although this

area supports hydrophytes that qualify it to be wetland, it is a human-made retention basin that is disturbed and dominated by non-native grasses and non-native forbs, and has highly disturbed soils that contain construction debris (e.g., concrete, asphalt); thus, a smaller 50-foot buffer was determined appropriate based on County guidelines (County of San Diego 2010). The project will impact a small 0.02-acre patch of southern willow scrub within the eastern portion of the project site (Figure 14). The majority of the southern willow scrub community that will be impacted occurs within an off-site portion of the study area (i.e., within the 100-foot buffer) on fenced private property which was not accessed during the surveys; however, a small portion of this vegetation community overhangs onto the project site, which will be impacted by the project. Although soil pits were not taken at this location due to inaccessibility of the drainage feature on the adjacent fenced property, for purposes of this analysis, it is assumed that this area could be a wetland, but would not be considered a RPO wetland because it exists solely due to a human-made structure, has negligible biological function or value as wetlands, is small and geographically isolated from other wetland systems, is not a vernal pool, and does not have substantial or locally important populations of wetland dependent sensitive species as defined in the San Diego County Code of Regulatory Ordinance Chapter 6 Section 86.601 subsections (q)(2)(aa)(i-iv). Thus, the project would not conflict with the RPO and impacts would be less than significant.

The project would limit uses adjacent to the Santa Maria Creek floodway to the low-intensity recreational trail use, which will not substantially harm the environmental values of the floodway area.

Per the RPO, impacts to sensitive habitat lands are prohibited unless all feasible measures necessary to protect and preserve the sensitive habitat lands are required as a condition of permit approval and where mitigation provides an equal or greater benefit to the affected species. Sensitive habitat lands include unique vegetation communities and/or habitat that is either necessary to support a viable sensitive species population, is critical to the proper functioning of a balanced natural ecosystem, or which serves as a functioning wildlife corridor. As previously stated, the project avoids impacts to Santa Maria Creek and its associated native riparian habitat, which is a regional wildlife corridor. The project also provides setback buffers from development for the protection of these resources. The project will impact a portion of the southern tarplant population found on-site, which could potentially conflict with the RPO and be a potentially significant impact; however, implementation of MM-BIO-1 would reduce impacts to a less-than-significant level.

Issue 6: Would the proposed project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Although not yet formally adopted, the study area is located within the Draft NCMSCP (County of San Diego 2009). The proposed project falls within the NCMSCP area but outside of the PAMAs. However, since the NCMSCP is not yet approved, the project follows the County's Guidelines for Determining Significance for Biological Resources.

The project was designed to avoid and minimize impacts to sensitive biological resources, specifically including Santa Maria Creek and its associated native riparian habitat, including sensitive natural communities, which

comprise the regional wildlife movement corridor, and to provide setback buffers from development for the protection of these resources. The project completely avoids impacts to the regional wildlife movement corridor, and to the southern cottonwood-willow riparian forest, disturbed emergent wetland, and Diegan coastal sage scrub communities on-site. However, the project would permanently impact 0.24 acre of salt grass grassland and a small 0.02-acre patch of southern willow scrub within the eastern portion of the project site (Figure 14). The majority of the southern willow scrub community that will be impacted occurs within an off-site portion of the study area (i.e., within the 100-foot buffer) on fenced private property which was not accessed during the surveys; however, a small portion of this vegetation community overhangs onto the project site, which will be impacted by the project. Impacts to salt grass grassland and southern willow scrub would conflict with the NCMSCP and be potentially significant. However, implementation of MM-BIO-3 would reduce impacts to a less-than-significant level.

Avoidance, Minimization, and Mitigation Measures

To minimize and avoid significant impacts to sensitive biological resources as a result of proposed project implementation, the following mitigation measures are recommended.

Mitigation for Potentially Significant Impacts to Special-Status Plants

MM-BIO-1: Prior to issuance of a grading permit, a southern tarplant mitigation plan shall be prepared and submitted to the County detailing the replacement of southern tarplant removed at a 2:1 ratio based on approximate numbers of individuals and/or based on acreage with similar density as the existing population. The southern tarplant mitigation shall be planted on-site adjacent to and contiguous with native habitat associated with Santa Maria Creek that will be avoided by the project, and the locations shall be to the satisfaction of the County. The southern tarplant mitigation plan shall detail performance standards, maintenance, and future monitoring, and at a minimum, shall include the following:

1. During the spring/summer prior to construction, a qualified biologist/botanist familiar with southern tarplant shall update the map of the southern tarplant individuals on-site. Southern tarplant typically blooms from May through November, so may be easiest to identify within the blooming period for this species.
2. For southern tarplant within the project construction footprint that will be impacted, seed shall be collected during the appropriate season (e.g., summer/fall). Seed may also be collected from southern tarplant populations/individuals on-site that will be avoided by the project, but seed collection should be limited to only 10 percent of seeds available from these populations/individuals so as not to deplete seed source for those avoided populations. Any seeds collected shall be stored in brown paper bags in a cool location until they have fully dried out and the seeds dehised.
3. Prior to construction activities, a qualified biologist/botanist shall flag all populations of southern tarplant to be avoided by the project (e.g., with orange snow fencing, stakes, flagging, or similar materials to clearly demarcate the area to be avoided), and construction crews shall be made aware of the locations of the sensitive biological resources and provided a map which identifies these areas.
4. Within the mitigation receptor site, the salvaged southern tarplant seeds shall be broadcast by hand during the next appropriate growing season. The seeds shall not be stored longer than two years as

the viability of the seed dramatically drops off after one year. Planting shall ideally occur prior to the rainy season.

5. The southern tarplant mitigation area shall be monitored by a qualified biologist for three years to verify that southern tarplant has been successfully restored.

Mitigation for Potentially Significant Impacts to Special-Status Wildlife and Nesting Birds

MM-BIO-2: Impacts to least Bell's vireo would be avoided by conducting construction outside of the bird nesting season (i.e., work should occur September 16 to March 14). If construction cannot avoid the least Bell's vireo nesting season, the following measures would be implemented:

1. Prior to construction activities during the least Bell's vireo nesting season (March 15 to September 15), a qualified biologist should conduct three pre-construction surveys of all suitable habitat for the presence of least Bell's vireo. If no least Bell's vireos are found, then no further mitigation is required with concurrence from the County and Wildlife Agencies.
2. If a least Bell's vireo is found during the pre-construction surveys, a buffer of 500 feet around the least Bell's vireo territory, or as determined appropriate by the qualified biologist (based on species-specific tolerances and site-specific conditions), would be delineated, flagged, and avoided until the nesting cycle is complete (i.e., the qualified biologist determines that the young have fledged or the nest has failed). The qualified biologist shall be a person familiar with least Bell's vireo breeding behavior and capable of identifying the species by sight and sound and determining alterations of behavior as a result of human interaction. Buffers shall be based on local topography and line of sight, species behavior and tolerance to disturbance, and existing disturbance levels, as determined appropriate by the qualified biologist. The qualified biologist may also recommend other measures to minimize disturbances to the territory/nest, which may include, but are not limited to, erection of sound barriers (e.g., noise blankets), erection of visual barriers (e.g., hay bales), or full-time monitoring by a qualified biologist. A biological monitor shall be on-site during construction to confirm the buffers are adequate to avoid and minimize disturbance to least Bell's vireo. Any buffers less than 500 feet, or any additional measures recommended to minimize disturbances should be communicated to the USFWS and CDFW prior to implementation.

MM-BIO-3: Impacts to special-status birds and other nesting birds would be avoided by conducting construction outside of the bird nesting season (i.e., work should occur September 16 to February 14, or July 16 to January 14 for raptors). If construction cannot avoid the bird nesting season, the following measures would be implemented:

1. Prior to work during the bird nesting season (February 15 to September 15, or January 15 to July 15 for raptors), a qualified biologist should conduct a pre-construction survey of all suitable habitat for the presence of nesting birds no more than 3 days prior to construction activities. The results of the pre-construction survey would be valid for 3 days; if vegetation removal activities do not commence within 3 days following the survey, a new pre-construction nesting bird survey should be conducted before these activities begin again. If no active nests are found, then no further mitigation is required with concurrence from the County and Wildlife Agencies.

2. If any active nests are found during a pre-construction nesting bird survey, a buffer of 300 feet (500 feet for raptors), or as determined appropriate by the qualified biologist (based on species-specific tolerances and site-specific conditions), would be delineated, flagged, and avoided until the nesting cycle is complete (i.e., the qualified biologist determines that the young have fledged or the nest has failed). The qualified biologist shall be a person familiar with bird breeding behavior and capable of identifying the bird species of San Diego County by sight and sound and determining alterations of behavior as a result of human interaction. Buffers shall be based on local topography and line of sight, species behavior and tolerance to disturbance, and existing disturbance levels, as determined appropriate by the qualified biologist. The qualified biologist may also recommend other measures to minimize disturbances to the nest, which may include, but are not limited to, erection of sound barriers (e.g., noise blankets), erection of visual barriers (e.g., hay bales), or full-time monitoring by a qualified biologist. A biological monitor shall be on-site during construction to confirm the buffers are adequate to avoid and minimize disturbance to nests.

MM-BIO-4: Impacts to special-status bats would be avoided by conducting all construction outside of the maternity roosting season (i.e., work should occur November 1 to February 28). If construction cannot avoid the maternity roosting season, the following measures would be implemented:

1. Prior to construction during the maternity roosting season (March 1 through September 30), a qualified biologist experienced with bat roost biology should conduct a pre-construction survey of all suitable habitat for the presence of special-status bats. The surveys shall be conducted at dusk and after nightfall by a biologist using sonic bat detectors (e.g., Anabat or Sonobat). If an active roost site is located during the pre-construction survey, the roost shall be avoided and project activities shall be conducted as recommended by the biologist to avoid the area, which may include provision of a suitable buffer established around the maternity roost until roosting activities cease, or temporary postponement of construction activities. A biological monitor shall be on-site during construction to confirm the buffers are adequate to avoid and minimize disturbance to maternity roosts.

MM-BIO-5: No more than 7 days prior to construction activities, a qualified biologist shall conduct a pre-construction survey of all suitable habitat for the presence of special-status wildlife, including reptiles. A Worker Environmental Awareness Program (WEAP) training shall be provided by a qualified biologist to the construction crews immediately prior to construction, and Best Management Practices (BMPs) (such as limiting vehicle speed, covering trenched areas, and allowing wildlife to leave the work area unharmed) shall be implemented during construction activities to avoid and minimize potential impacts to these species.

MM-BIO-6: Prior to issuance of a grading permit, a manure management plan shall be prepared and submitted to the County detailing the maintenance and management of the trail to deter attracting brown-headed cowbirds into the area. The Department of Parks and Recreation shall be responsible for implementing the manure management plan.

Mitigation for Potentially Significant Impacts to Sensitive Plant Communities and Naturalized Communities

MM-BIO-7: Prior to issuance of a grading permit, impacts to sensitive natural communities and naturalized communities will be mitigated by the replacement of an equivalent acreage of salt grass grassland removed, at a 3:1 ratio; southern willow scrub removed, at a 3:1 ratio; and non-native grassland and non-native grassland: broadleaf-dominated removed, at a 0.5:1 ratio. Per the County's Guidelines for Determining Significance and Report Format and Content Guidelines, mitigation may occur offsite at appropriate locations or on-site if the site is appropriate as open space and site-specific factors dictate mitigation would be biologically viable. Mitigation may consist of 1) deducting and/or purchasing credits at a County-approved conservation or mitigation bank, and/or 2) preparing a revegetation plan to be reviewed and approved by the County (and agencies for aquatic resources) that identifies disturbed areas either on-site or offsite that are ecologically appropriate for one or more types of mitigation and implementing the mitigation, as described below.

1. All or a portion of the mitigation can be satisfied through the deduction or purchase of mitigation credits at a County-approved mitigation bank[2] (e.g., Ramona Grasslands Conservation Bank, Brook Forest Mitigation Bank, Cleveland Corridor Conservation Bank, or San Luis Rey Mitigation Bank). A verification step is required to confirm appropriate mitigation habitats, types, and acreages are available via banks to provide in-kind habitat mitigation or acceptable out-of-kind mitigation (i.e., mitigation habitat value at least equal to the impacted habitat). With concurrence from the County (and agencies for aquatic resources), final mitigation acreage may be adjusted if the types of mitigation merit adjustments in the mitigation ratios. For example, in the case of mitigation banks that include established or reestablished (creation) habitats, an overall 1:1 replacement ratio is typically appropriate because bank restored habitats are established (i.e., already existing) and thus, there is no temporal loss of wetlands (and associated functions and services) from the time that impacts occur to the completion of mitigation (i.e., meeting performance standards). Replacement ratios are partly based on potential temporal loss of habitat and a degree of uncertainty regarding long-term success. The deduction or purchase of completed mitigation credits from a bank, which includes long-term management, addresses those factors and therefore a reduced ratio, as low as 1:1, may be appropriate.
2. All or a portion of the mitigation can be satisfied through the preparation of a revegetation plan that would be approved prior to issuance of a grading permit. The plan would detail mitigation for impacts to sensitive natural communities and naturalized communities and submittal to the County (and agencies for aquatic resources), followed by successful implementation of the approved plan. The mitigation shall be planned and implemented at appropriate location(s) either on-site (i.e., adjacent to and contiguous with native habitat associated with Santa Maria Creek that will be avoided and potentially preserved by the project) or at an off-site location. As referenced above, if a given site is appropriate as open space and site-specific factors dictate mitigation would be biologically viable for one or more habitat types, the County may approve one or more sites for mitigation for a given project. If a revegetation plan is prepared, it shall detail performance standards, maintenance, and

[2] County of San Diego. 2022. *County of San Diego Mitigation Banks*. Available online at: https://www.sandiegocounty.gov/content/sdc/pds/mitbnks.html. Accessed on October 21, 2022.

future monitoring, and at a minimum, shall include monitoring by a qualified biologist for five years to verify that sensitive vegetation communities have been successfully mitigated. The mitigation planning process will also document the mitigation site property status and open space preservation mechanism to ensure the property is protected over the long-term. A revegetation plan shall include, as needed for the particular habitat and type of mitigation, the following:

a. A native planting palette appropriate for the vegetation type being mitigated and appropriate to local conditions.

b. Temporary irrigation for the first 2 to 3 years after native planting. Irrigation should be removed during the final 2 years of mitigation to ensure the mitigation habitat is self-sustaining.

c. A post-installation 120-day plant establishment period plus 5-year mitigation maintenance period (or until performance standards are met).

d. A five-year maintenance period including native plant care, temporary irrigation (as needed), non-native plant (weed) treatment/removal, erosion control, and site protection.

e. Performance standards for the establishment period and years 1–5.

f. Qualitative and quantitative monitoring methods to ensure that performance standards are tracked and met, implementation of an adaptive management approach.

g. Responsibilities and qualifications of the mitigation maintenance contractor(s) and restoration ecologist.

h. Description of annual reporting.

Mitigation for Potentially Significant Impacts to Regional Wildlife Movement

MM-BIO-8: Prior to and during construction, the following shall apply:

1. The project impact footprint will be staked and fenced (e.g., with snow fencing or silt fencing) by a surveyor and the boundary will be confirmed by a qualified biological monitor. The construction site manager will ensure that the fencing is maintained for the duration of construction and that any required repairs are completed in a timely manner.
2. If any wildlife is encountered during maintenance activities, the wildlife should be allowed to leave the work area unharmed and shall be flushed or herded in a safe direction away from the work area(s).
3. Qualified biological monitor(s) will be on-site during all grubbing (i.e., vegetation removal) activities to flush any wildlife within the project impact footprint away from work areas.
4. Any open trenches should be covered at the end of each work day in a manner to prevent the entrapment of wildlife, or adequately ramped to provide an animal escape.
5. If night-time maintenance is required, lighting should be directed away from native vegetation and should be limited to the minimum amount necessary to complete the maintenance activities.

Upon project build-out (i.e., post-construction), the following shall apply:

1. Lighting will be shielded and/or directed away from open space areas to ensure that ambient lighting within open space areas or the wildlife corridor is not increased.
2. Signage and appropriate physical barriers, if deemed necessary, will be incorporated to deter unauthorized public access, domestic animal predation, and illegal trespass or dumping into open space areas or the wildlife corridor.
3. An educational kiosk should be installed along the trail to inform residents and trail users about the sensitive natural resources within the area. Education will emphasize the importance of obeying signs and staying on-trail along open space areas and the wildlife corridor.

Please contact Maile Tanaka at 310.387.7833 or mtanaka@esassoc.com if you have any questions.

Sincerely,

Maile Tanaka
Principal Biologist

Attachments:
A CNDDB, CNPS, and IPaC Database Queries
B Site Photographs
C Regulatory Framework
D Floral and Faunal Compendium
E Special-Status Plant Species
F Special-Status Wildlife Species

Appendices:
A Aquatic Resources Delineation Report
B Burrowing Owl Survey Report
C Least Bell's Vireo Survey Report
D USFWS 90-Day Report of 2023 Wet and Dry Season Fairy Shrimp Surveys

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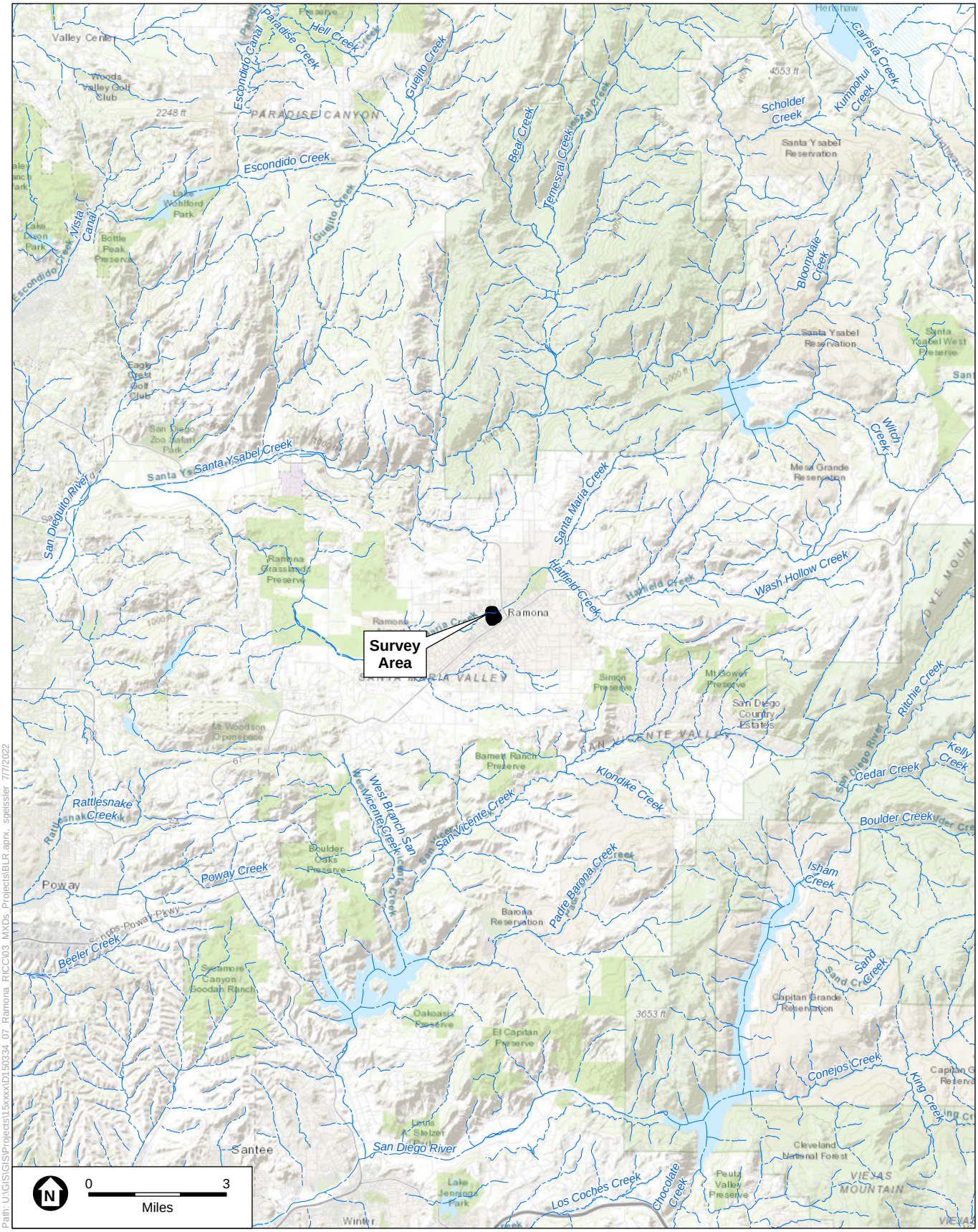
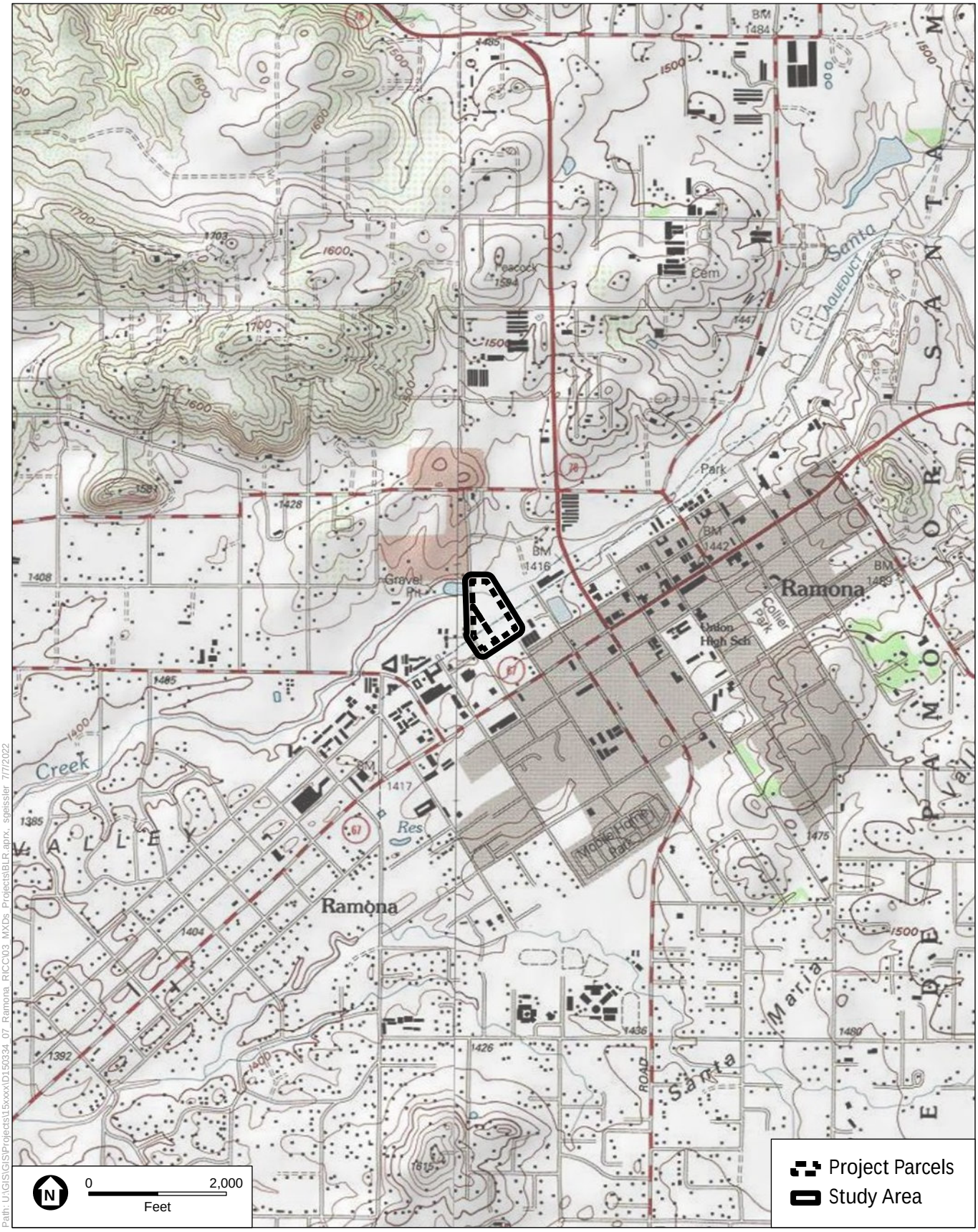


SOURCE: ESRI World Topographic Map.

Paseo Norte Senior Affordable Housing Project

Figure 1
Regional Location

ESA



SOURCE: USGS Topographic Series (San Pasqual, Ramona), 2018.

Paseo Norte Senior Affordable Housing Project

Figure 2
Vicinity Map

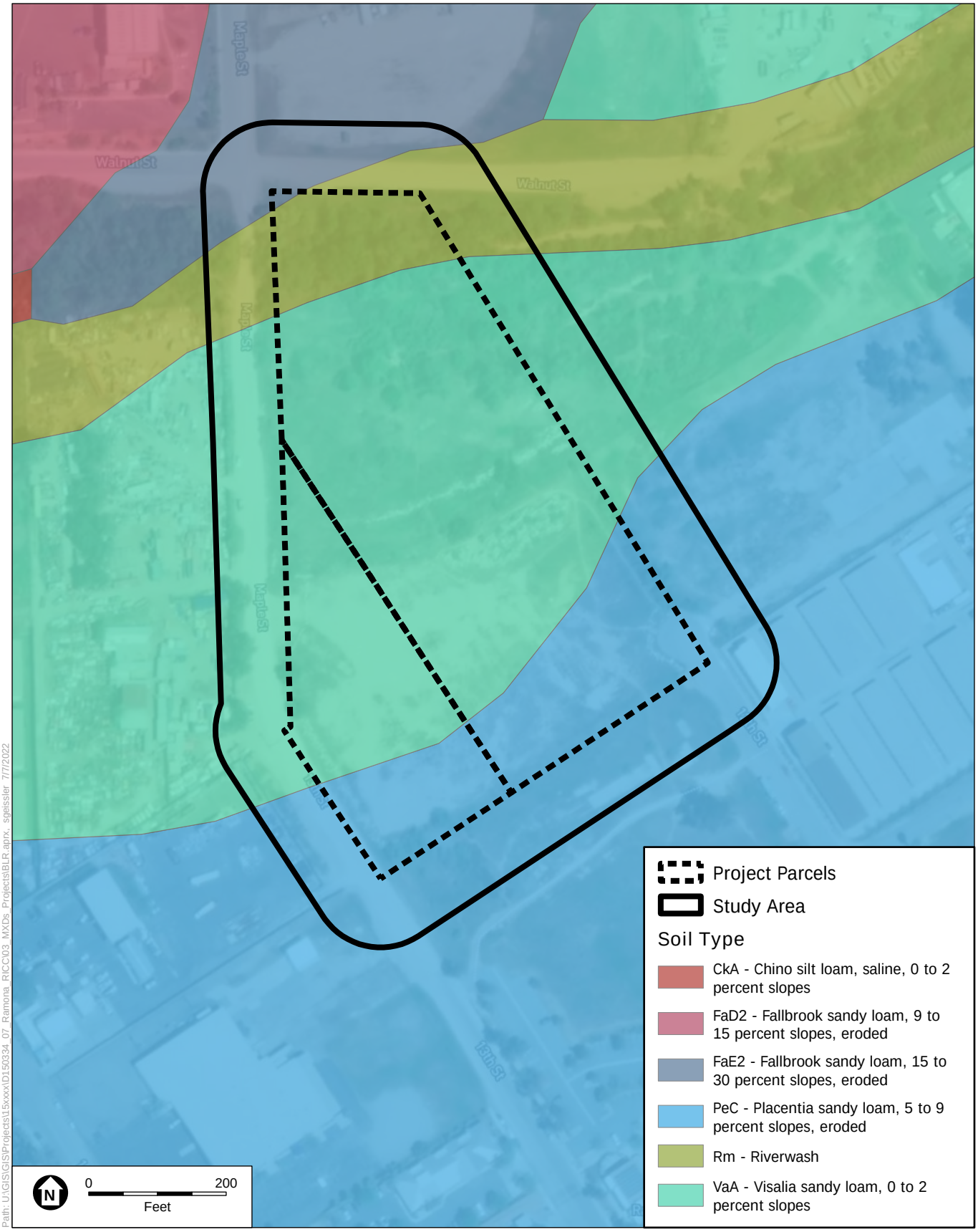
ESA

SOURCE: Mapbox, 2020.

Paseo Norte Senior Affordable Housing Project

Figure 3
Site Plan

ESA

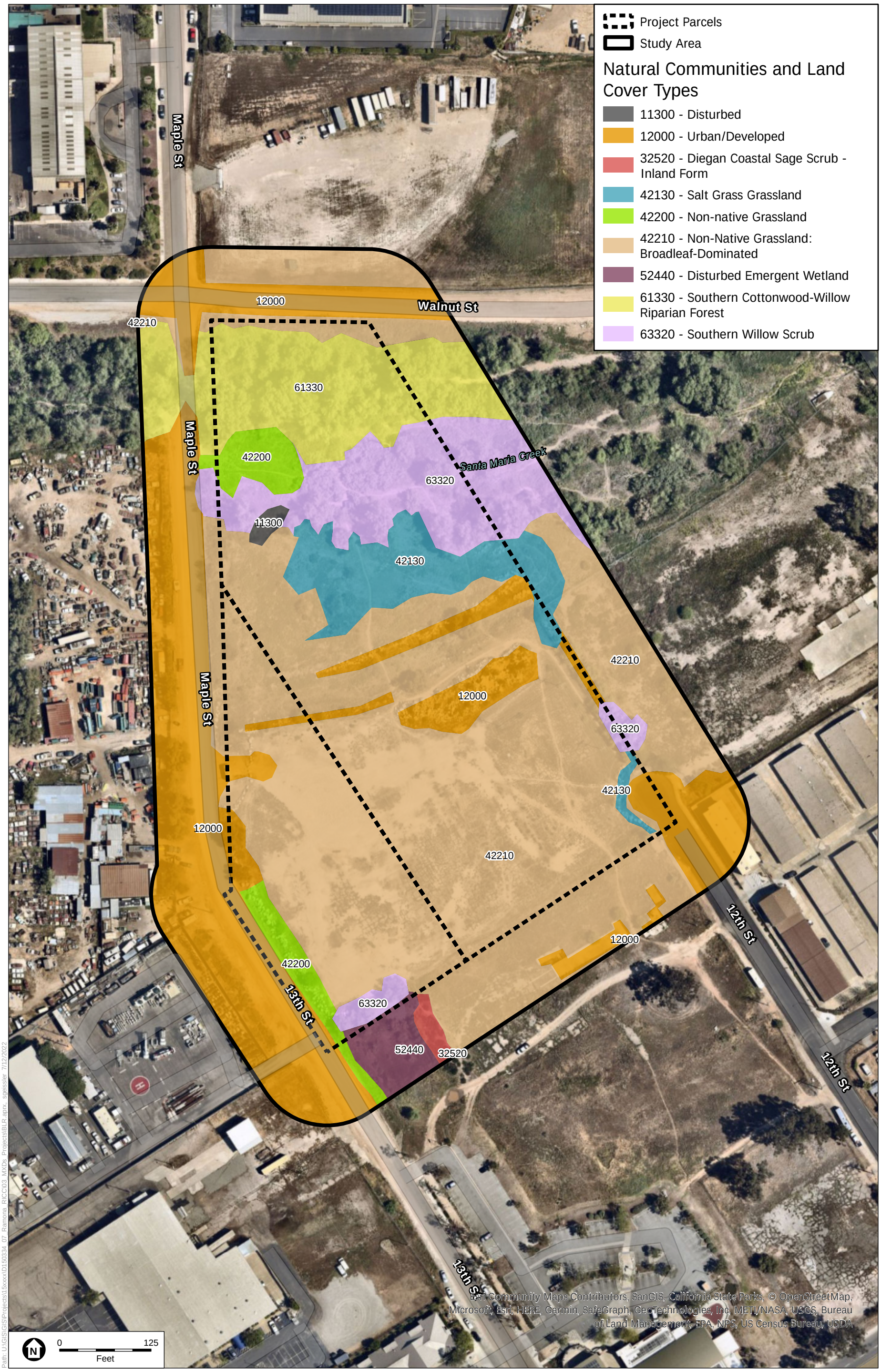


SOURCE: Mapbox, 2020; USDA.

Paseo Norte Senior Affordable Housing Project

Figure 4
Soils

ESA



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SOURCE: ESA, 2021.

Paseo Norte Senior Affordable Housing Project

Figure 5

Natural Communities and Land Cover Types

ESA

SOURCE: ESA, 2021.

Paseo Norte Senior Affordable Housing Project

Figure 6

Potential Wetland Waters of the U.S. and other Wetlands

ESA

SOURCE: ESA, 2021.

Paseo Norte Senior Affordable Housing Project

Figure 7

Potential Waters of the State and State Wetlands

ESA

SOURCE: ESA, 2021.

Paseo Norte Senior Affordable Housing Project

Figure 8

Potential FGC 1600 Resources

ESA

SOURCE: ESA, 2021.

Paseo Norte Senior Affordable Housing Project

Figure 9

Special-Status Plants

ESA

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SOURCE: ESA, 2021.

Paseo Norte Senior Affordable Housing Project

Figure 10

Special-Status Wildlife

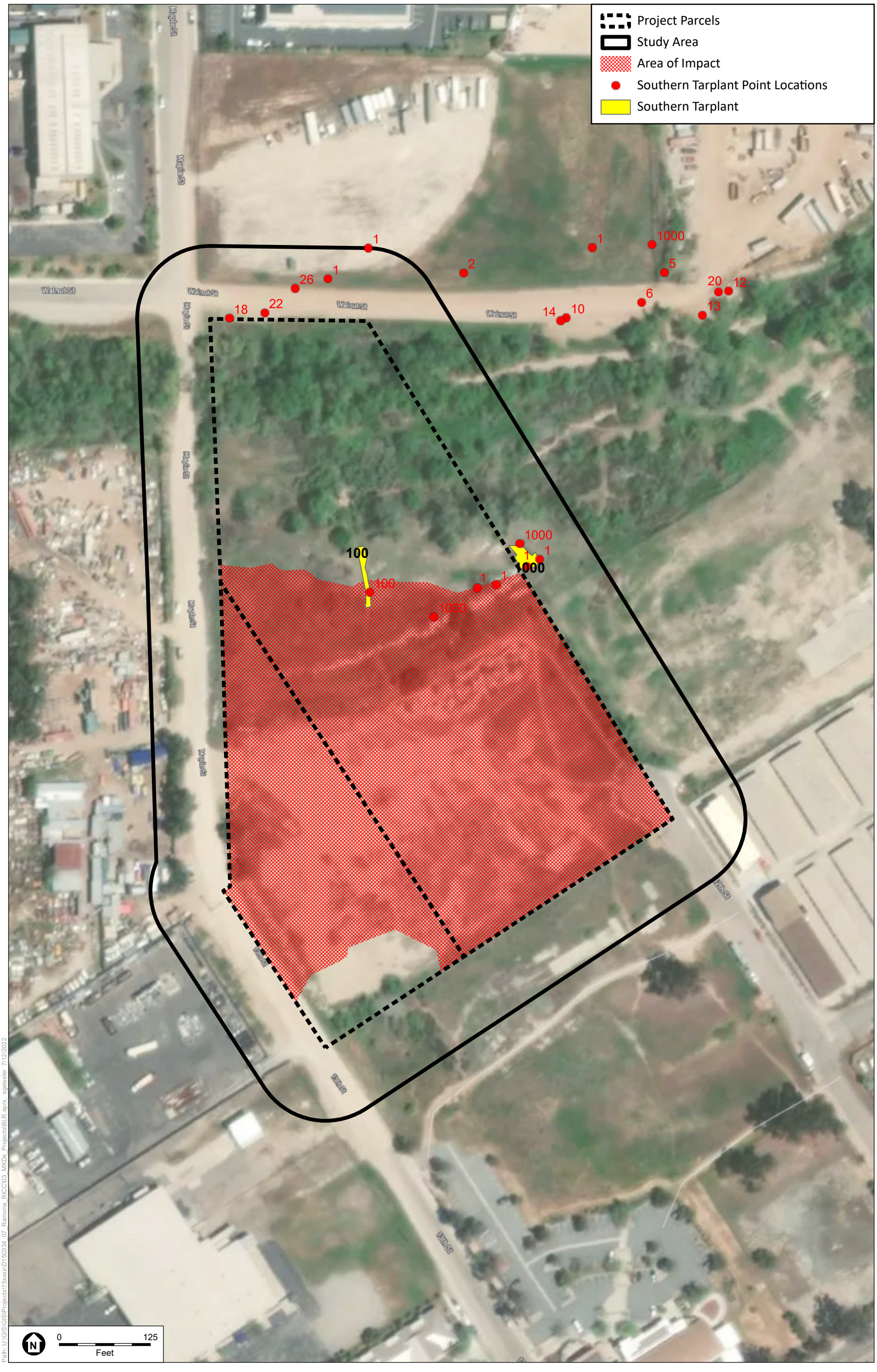
ESA

SOURCE: NearMap, 2022.

Paseo Norte Senior Affordable Housing Project

Figure 11
Regional Aerial

ESA



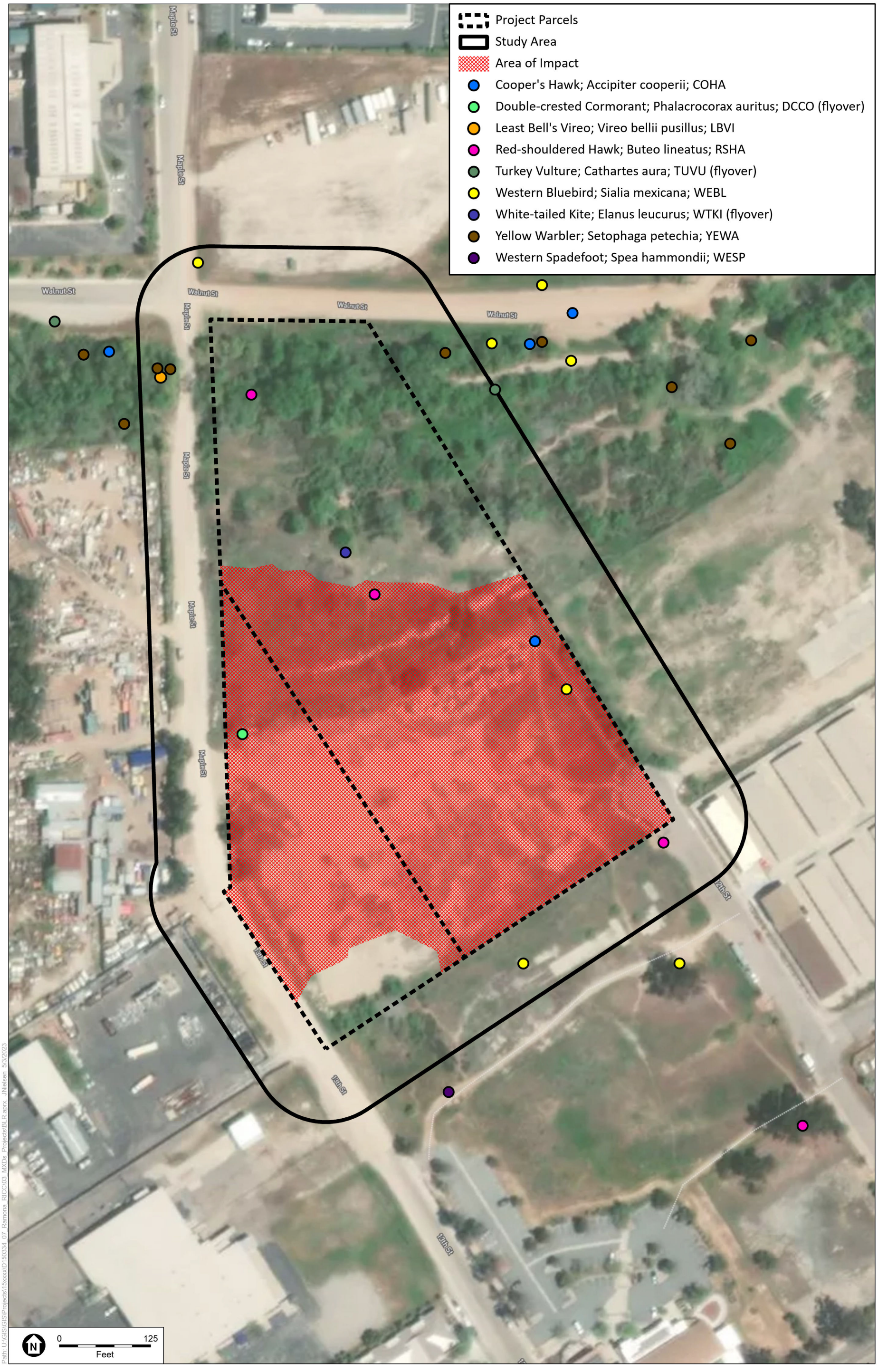
SOURCE: ESA, 2021.

Paseo Norte Senior Affordable Housing Project

Figure 12

Impacts to Special-Status Plants

ESA



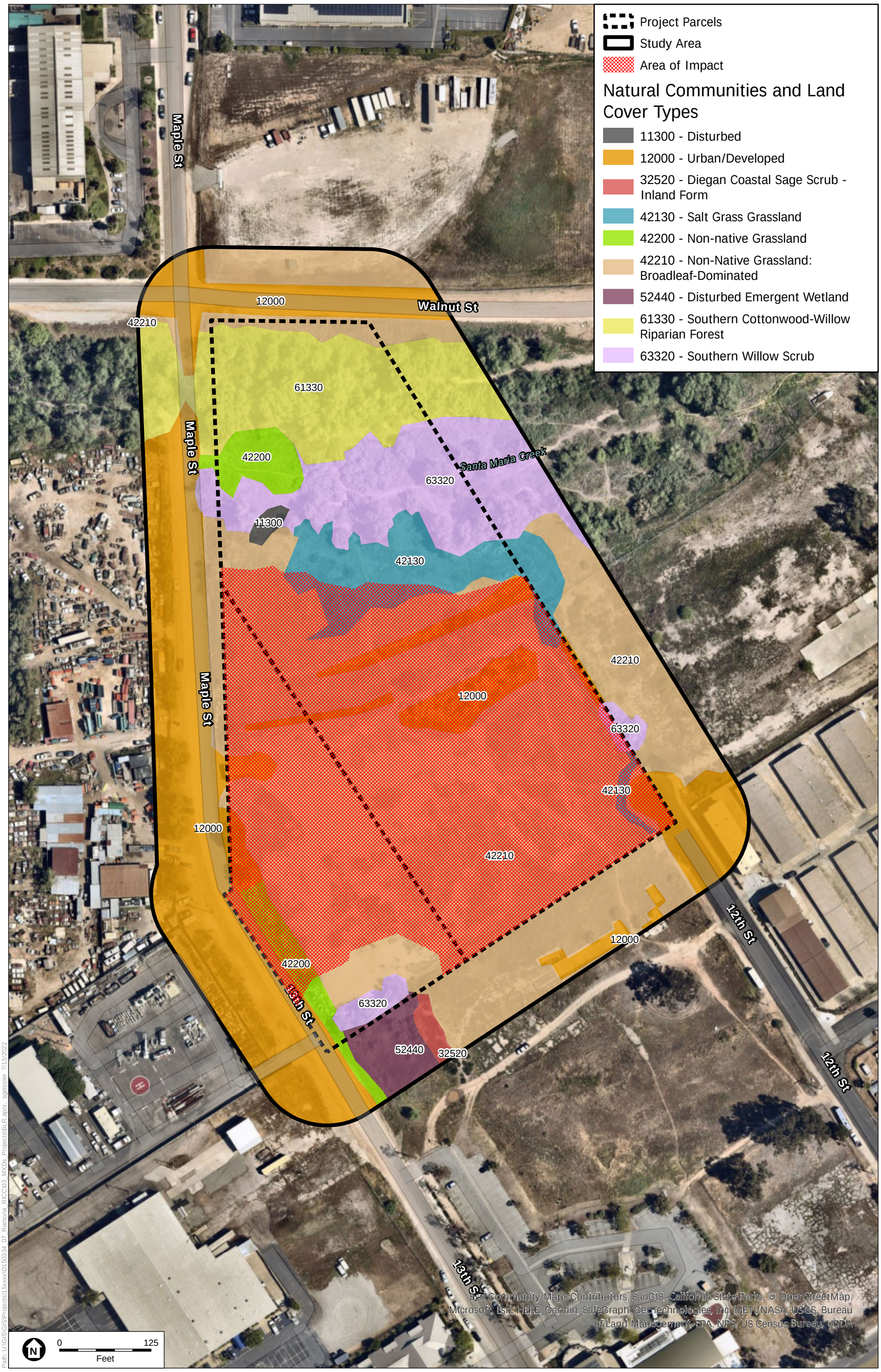
SOURCE: ESA, 2021.

Paseo Norte Senior Affordable Housing Project

Figure 13

Impacts to Special-Status Wildlife

ESA



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SOURCE: ESA, 2021.

Paseo Norte Senior Affordable Housing Project

Figure 14

Impacts to Natural Communities and Land Cover Types

ESA

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SOURCE: ESA, 2021.

Paseo Norte Senior Affordable Housing Project

Figure 15

Impacts to Potential FGC 1600 Resources

ESA

SOURCE: ESA, 2021.

Paseo Norte Senior Affordable Housing Project

Figure 16

Impacts to Potential Waters of the U.S. and other Wetlands

ESA

SOURCE: ESA, 2021.

Paseo Norte Senior Affordable Housing Project

Figure 17

Impacts to Potential Waters of the State and State Wetlands

ESA

SOURCE: NearMap, 2022.

Paseo Norte Senior Affordable Housing Project

Figure 18
Impacts to Regional Movement

ESA

Attachment A

CNDDB, CNPS, and IPaC Database Queries

ESA

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE RareFind

Query Summary:
Quad IS (Rodriquez Mtn. (3311628) OR Mesa Grande (3311627) OR Warners Ranch (3311626) OR San Pasqual (3311618) OR Ramona (3311617) OR Santa Ysabel (3311616) OR El Cajon Mtn. (3211687) OR San Vicente Reservoir (3211688) OR Tule Springs (3211686))

Print Close

CNDDB Element Query Results

Scientific Name	Common Name	Taxonomic Group	Element Code	Total Occs	Returned Occs	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Other Status	Habitats
Acanthomintha ilicifolia	San Diego thorn-mint	Dicots	PDLAM01010	84	7	Threatened	Endangered	G1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral, Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland
Accipiter cooperii	Cooper's hawk	Birds	ABNKC12040	118	2	None	None	G5	S4	null	CDFW_WL-Watch List, IUCN_LC-Least Concern	Cismontane woodland, Riparian forest, Riparian woodland, Upper montane coniferous forest
Adolphia californica	California adolphia	Dicots	PDRHA01010	136	1	None	None	G3	S2	2B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral, Coastal scrub, Valley & foothill grassland
Agelaius tricolor	tricolored blackbird	Birds	ABPBXB0020	955	10	None	Threatened	G1G2	S1S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern	Freshwater marsh, Marsh & swamp, Swamp, Wetland
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	Birds	ABPBX91091	235	17	None	None	G5T3	S3	null	CDFW_WL-Watch List	Chaparral, Coastal scrub
Allium marvinii	Yucaipa onion	Monocots	PMLIL02330	47	6	None	None	G1	S1	1B.2	BLM_S-Sensitive, USFS_S-Sensitive	Chaparral
Ammodramus savannarum	grasshopper sparrow	Birds	ABPBXA0020	27	1	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Valley & foothill grassland
Anaxyrus californicus	arroyo toad	Amphibians	AAABB01230	139	17	Endangered	None	G2G3	S2S3	null	CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered	Desert wash, Riparian scrub, Riparian woodland, South coast flowing waters, South coast standing waters
Anniella stebbinsi	Southern California legless lizard	Reptiles	ARACC01060	426	12	None	None	G3	S3	null	CDFW_SSC-Species of Special Concern, USFS_S-Sensitive	Broadleaved upland forest, Chaparral, Coastal dunes, Coastal scrub
Antrozous pallidus	pallid bat	Mammals	AMACC10010	420	7	None	None	G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive, WBWG_H-High Priority	Chaparral, Coastal scrub, Desert wash, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Riparian woodland, Sonoran desert scrub, Upper montane coniferous forest, Valley & foothill grassland
Aquila chrysaetos	golden eagle	Birds	ABNKC22010	325	4	None	None	G5	S3	null	BLM_S-Sensitive,	Broadleaved

											CDF_S-Sensitive, CDFW_FP-Fully Protected, CDFW_WL-Watch List, IUCN_LC-Least Concern	upland forest, Cismontane woodland, Coastal prairie, Great Basin grassland, Great Basin scrub, Lower montane coniferous forest, Pinon & juniper woodlands, Upper montane coniferous forest, Valley & foothill grassland
Arizona elegans occidentalis	California glossy snake	Reptiles	ARADB01017	260	14	None	None	G5T2	S2	null	CDFW_SSC-Species of Special Concern	null
Artemisia palmeri	San Diego sagewort	Dicots	PDAST0S160	36	1	None	None	G3?	S3?	4.2	SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral, Coastal scrub, Riparian forest, Riparian scrub, Riparian woodland
Artemisiospiza belli belli	Bell's sage sparrow	Birds	ABPBX97021	61	3	None	None	G5T2T3	S3	null	CDFW_WL-Watch List	Chaparral, Coastal scrub
Aspidoscelis hyperythra	orange-throated whiptail	Reptiles	ARACJ02060	369	31	None	None	G5	S2S3	null	CDFW_WL-Watch List, IUCN_LC-Least Concern, USFS_S-Sensitive	Chaparral, Cismontane woodland, Coastal scrub
Aspidoscelis tigris stejnegeri	coastal whiptail	Reptiles	ARACJ02143	148	12	None	None	G5T5	S3	null	CDFW_SSC-Species of Special Concern	null
Astragalus deanei	Dean's milk-vetch	Dicots	PDFAB0F2R0	28	6	None	None	G1	S1	1B.1	BLM_S-Sensitive, USFS_S-Sensitive	Chaparral, Cismontane woodland, Coastal scrub, Riparian forest
Astragalus oocarpus	San Diego milk-vetch	Dicots	PDFAB0F6B0	55	27	None	None	G2?	S2?	1B.2	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, USFS_S-Sensitive	Chaparral, Cismontane woodland
Athene cunicularia	burrowing owl	Birds	ABNSB10010	2011	2	None	None	G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, Valley & foothill grassland
Atriplex coulteri	Coulter's saltbush	Dicots	PDCHE040E0	121	1	None	None	G3	S1S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley & foothill grassland
Atriplex parishii	Parish's brittlescale	Dicots	PDCHE041D0	15	1	None	None	G1G2	S1	1B.1	SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, USFS_S-Sensitive	Alkali playa, Chenopod scrub, Meadow & seep, Vernal pool, Wetland
Baccharis vanessae	Encinitas baccharis	Dicots	PDAST0W0P0	31	4	Threatened	Endangered	G1	S1	1B.1	SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral, Cismontane woodland
Bloomeria clevelandii	San Diego goldenstar	Monocots	PMLIL1H010	131	5	None	None	G2	S3	1B.1	BLM_S-Sensitive, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, SB_UCBG-UC Botanical Garden at Berkeley	Chaparral, Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland
Bombus crotchii	Crotch bumble bee	Insects	IIHYM24480	437	6	None	None	G2	S1S2	null	null	null
Branchinecta sandiegonensis	San Diego fairy shrimp	Crustaceans	ICBRA03060	122	9	Endangered	None	G2	S2	null	IUCN_EN-Endangered	Chaparral, Coastal scrub, Vernal pool, Wetland
Brodiaea filifolia	thread-leaved brodiaea	Monocots	PMLIL0C050	141	1	Threatened	Endangered	G2	S2	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic	Chaparral, Cismontane woodland,

											Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland
Brodiaea orcuttii	Orcutt's brodiaea	Monocots	PMLIL0C0B0	142	18	None	None	G2	S2	1B.1	BLM_S-Sensitive, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, USFS_S-Sensitive	Chaparral, Cismontane woodland, Closed-cone coniferous forest, Meadow & seep, Ultramafic, Valley & foothill grassland, Vernal pool, Wetland
Buteo swainsoni	Swainson's hawk	Birds	ABNKC19070	2548	3	None	Threatened	G5	S3	null	BLM_S-Sensitive, IUCN_LC-Least Concern	Great Basin grassland, Riparian forest, Riparian woodland, Valley & foothill grassland
Calochortus dunnii	Dunn's mariposa-lily	Monocots	PMLIL0D0C0	38	4	None	Rare	G2G3	S2S3	1B.2	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, USFS_S-Sensitive	Chaparral, Closed-cone coniferous forest, Ultramafic, Valley & foothill grassland
Calochortus palmeri var. munzii	San Jacinto mariposa-lily	Monocots	PMLIL0D121	48	1	None	None	G3T3	S3	1B.2	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral, Lower montane coniferous forest, Meadow & seep
Campylorhynchus brunneicapillus sandiegensis	coastal cactus wren	Birds	ABPBG02095	157	8	None	None	G5T3Q	S3	null	CDFW_SSC-Species of Special Concern, USFS_S-Sensitive, USFWS_BCC-Birds of Conservation Concern	Coastal scrub
Ceanothus cyaneus	Lakeside ceanothus	Dicots	PDRHA04070	48	29	None	None	G2	S2	1B.2	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, USFS_S-Sensitive	Chaparral, Closed-cone coniferous forest
Ceanothus otayensis	Otay Mountain ceanothus	Dicots	PDRHA04430	26	1	None	None	G1G2	S1	1B.2	BLM_S-Sensitive, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral, Ultramafic
Ceanothus verrucosus	wart-stemmed ceanothus	Dicots	PDRHA041J0	73	1	None	None	G2	S2?	2B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, SB_UCBG-UC Botanical Garden at Berkeley	Chaparral
Centromadia parryi ssp. australis	southern tarplant	Dicots	PDAST4R0P4	94	8	None	None	G3T2	S2	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, SB_SBBG-Santa Barbara Botanic Garden	Marsh & swamp, Salt marsh, Valley & foothill grassland, Vernal pool, Wetland
Centromadia pungens ssp. laevis	smooth tarplant	Dicots	PDAST4R0R4	137	3	None	None	G3G4T2	S2	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Alkali playa, Chenopod scrub, Meadow & seep, Riparian woodland, Valley & foothill grassland, Wetland
Chaetodipus californicus femoralis	Dulzura pocket mouse	Mammals	AMAFD05021	54	10	None	None	G5T3	S3	null	CDFW_SSC-Species of Special Concern	Chaparral, Coastal scrub, Valley & foothill grassland

Chaetodipus fallax fallax	northwestern San Diego pocket mouse	Mammals	AMAFD05031	101	5	None	None	G5T3T4	S3S4	null	CDFW_SSC-Species of Special Concern	Chaparral, Coastal scrub
Chorizanthe polygonoides var. longispina	long-spined spineflower	Dicots	PDPGN040K1	166	8	None	None	G5T3	S3	1B.2	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral, Coastal scrub, Meadow & seep, Ultramafic, Valley & foothill grassland, Vernal pool
Clarkia delicata	delicate clarkia	Dicots	PDONA050D0	140	56	None	None	G3	S3	1B.2	BLM_S-Sensitive, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral, Cismontane woodland, Ultramafic
Clinopodium chandleri	San Miguel savory	Dicots	PDLAM08030	37	3	None	None	G3	S2	1B.2	BLM_S-Sensitive, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, USFS_S-Sensitive	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland, Ultramafic, Valley & foothill grassland
Comarostaphylis diversifolia ssp. diversifolia	summer holly	Dicots	PDERI0B011	117	3	None	None	G3T2	S2	1B.2	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral, Cismontane woodland
Corynorhinus townsendii	Townsend's big-eared bat	Mammals	AMACC08010	635	7	None	None	G4	S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive, WBWG_H-High Priority	Broadleaved upland forest, Chaparral, Chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, Lower montane coniferous forest, Meadow & seep, Mojavean desert scrub, Riparian forest, Riparian woodland, Sonoran desert scrub, Sonoran thorn woodland, Upper montane coniferous forest, Valley & foothill grassland
Crotalus ruber	red-diamond rattlesnake	Reptiles	ARADE02090	192	13	None	None	G4	S3	null	CDFW_SSC-Species of Special Concern, USFS_S-Sensitive	Chaparral, Mojavean desert scrub, Sonoran desert scrub
Deinandra floribunda	Tecate tarplant	Dicots	PDAST4R0B0	59	1	None	None	G2	S2	1B.2	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, SB_USDA-US Dept of Agriculture, USFS_S-Sensitive	Chaparral, Coastal scrub
Delphinium hesperium ssp. cuyamacae	Cuyamaca larkspur	Dicots	PDRAN0B0U1	29	1	None	Rare	G4T2	S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, USFS_S-Sensitive	Lower montane coniferous forest, Meadow & seep, Vernal pool, Wetland
Diadophis punctatus similis	San Diego ringneck snake	Reptiles	ARADB1001A	13	1	None	None	G5T4	S2?	null	USFS_S-Sensitive	null
Dipodomys stephensi	Stephens' kangaroo rat	Mammals	AMAFD03100	227	9	Threatened	Threatened	G2	S2	null	IUCN_EN-Endangered	Coastal scrub, Valley & foothill grassland
Downingia concolor var. brevior	Cuyamaca Lake downingia	Dicots	PDCAM06041	4	1	None	Endangered	G4T1	S1	1B.1	SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Meadow & seep, Vernal pool, Wetland
Dudleya variegata	variegated	Dicots	PDCRA040R0	122	3	None	None	G2	S2	1B.2	BLM_S-Sensitive,	Chaparral,

	dudleya										SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Cismontane woodland, Coastal scrub, Valley & foothill grassland
Elanus leucurus	white-tailed kite	Birds	ABNKC06010	184	2	None	None	G5	S3S4	null	BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_LC-Least Concern	Cismontane woodland, Marsh & swamp, Riparian woodland, Valley & foothill grassland, Wetland
Empidonax traillii extimus	southwestern willow flycatcher	Birds	ABPAE33043	70	2	Endangered	Endangered	G5T2	S1	null	NABCI_RWL-Red Watch List	Riparian woodland
Emys marmorata	western pond turtle	Reptiles	ARAAD02030	1404	7	None	None	G3G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable, USFS_S-Sensitive	Aquatic, Artificial flowing waters, Klamath/North coast flowing waters, Klamath/North coast standing waters, Marsh & swamp, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing waters, South coast standing waters, Wetland
Ensatina eschscholtzii klauberi	large-blotched salamander	Amphibians	AAAAD04013	12	1	None	None	G5T2?	S3	null	CDFW_WL-Watch List, USFS_S-Sensitive	null
Ericameria palmeri var. palmeri	Palmer's goldenbush	Dicots	PDAST3L0C1	34	5	None	None	G4T2?	S2	1B.1	SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral, Coastal scrub
Eryngium aristulatum var. parishii	San Diego button-celery	Dicots	PDAPI0Z042	83	2	Endangered	Endangered	G5T1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland
Eumops perotis californicus	western mastiff bat	Mammals	AMACD02011	296	13	None	None	G4G5T4	S3S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, WBWG_H-High Priority	Chaparral, Cismontane woodland, Coastal scrub, Valley & foothill grassland
Euphydryas editha quino	quino checkerspot butterfly	Insects	IILEPK405L	186	3	Endangered	None	G5T1T2	S1S2	null	null	Chaparral, Coastal scrub
Falco mexicanus	prairie falcon	Birds	ABNKD06090	451	1	None	None	G5	S4	null	CDFW_WL-Watch List, IUCN_LC-Least Concern	Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, Valley & foothill grassland
Ferocactus viridescens	San Diego barrel cactus	Dicots	PDCAC08060	249	6	None	None	G3?	S2S3	2B.1	IUCN_LC-Least Concern, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral, Coastal scrub, Valley & foothill grassland
Gila orcuttii	arroyo chub	Fish	AFCJB13120	49	1	None	None	G2	S2	null	AFS_VU-Vulnerable, CDFW_SSC-Species of Special Concern, USFS_S-Sensitive	Aquatic, South coast flowing waters
Githopsis diffusa ssp. filicaulis	Mission Canyon bluecup	Dicots	PDCAM07023	3	2	None	None	G5T1Q	S1	3.1	USFS_S-Sensitive	Chaparral
Grindelia hallii	San Diego gumplant	Dicots	PDAST470D4	66	14	None	None	G2	S2	1B.2	BLM_S-Sensitive, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral, Lower montane coniferous forest, Meadow & seep, Valley &

												foothill grassland
Harpagonella palmeri	Palmer's grapplinghook	Dicots	PDBOR0H010	57	3	None	None	G4	S3	4.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral, Coastal scrub, Valley & foothill grassland
Hesperocyparis forbesii	Tecate cypress	Gymnosperms	PGCUP040C0	27	1	None	None	G2	S2	1B.1	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, SB_UCSC-UC Santa Cruz, SB_USDA-US Dept of Agriculture, USFS_S-Sensitive	Chaparral, Closed-cone coniferous forest
Hesperocyparis stephensonii	Cuyamaca cypress	Gymnosperms	PGCUP04013	5	2	None	None	G1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral, Cismontane woodland, Closed-cone coniferous forest, Riparian forest, Ultramafic
Horkelia truncata	Ramona horkelia	Dicots	PDROS0W0G0	49	24	None	None	G3	S3	1B.3	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, SB_UCBG-UC Botanical Garden at Berkeley, USFS_S-Sensitive	Chaparral, Cismontane woodland, Ultramafic
Hulsea californica	San Diego sunflower	Dicots	PDAST4Z030	70	4	None	None	G3	S3	1B.3	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Chaparral, Lower montane coniferous forest, Upper montane coniferous forest
Icteria virens	yellow-breasted chat	Birds	ABPBX24010	101	1	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Riparian forest, Riparian scrub, Riparian woodland
Isocoma menziesii var. decumbens	decumbent goldenbush	Dicots	PDAST57091	126	4	None	None	G3G5T2T3	S2	1B.2	BLM_S-Sensitive, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral, Coastal scrub
Iva hayesiana	San Diego marsh-elder	Dicots	PDAST580A0	128	2	None	None	G3	S2	2B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Alkali playa, Marsh & swamp, Wetland
Lasionycteris noctivagans	silver-haired bat	Mammals	AMACC02010	139	1	None	None	G3G4	S3S4	null	IUCN_LC-Least Concern, WBWG_M-Medium Priority	Lower montane coniferous forest, Oldgrowth, Riparian forest
Lasiurus blossevillii	western red bat	Mammals	AMACC05060	128	6	None	None	G4	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, WBWG_H-High Priority	Cismontane woodland, Lower montane coniferous forest, Riparian forest, Riparian woodland
Lasiurus cinereus	hoary bat	Mammals	AMACC05030	238	7	None	None	G3G4	S4	null	IUCN_LC-Least Concern, WBWG_M-Medium Priority	Broadleaved upland forest, Cismontane woodland, Lower montane coniferous forest, North coast coniferous forest
Lasiurus xanthinus	western yellow bat	Mammals	AMACC05070	58	2	None	None	G4G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, WBWG_H-High Priority	Desert wash
Lepechinia cardiophylla	heart-leaved pitcher sage	Dicots	PDLAM0V020	25	3	None	None	G3	S2S3	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic	Chaparral, Cismontane woodland,

											Garden, USFS_S-Sensitive	Closed-cone coniferous forest
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	Dicots	PDBRA1M114	142	6	None	None	G5T3	S3	4.3	null	Chaparral, Coastal scrub
Lepus californicus bennettii	San Diego black-tailed jackrabbit	Mammals	AMAEB03051	103	5	None	None	G5T3T4	S3S4	null	null	Coastal scrub
Lessingia glandulifera var. tomentosa	Warner Springs lessingia	Dicots	PDAST5S022	7	2	None	None	G4?T2	S2	1B.1	BLM_S-Sensitive, USFS_S-Sensitive	Chaparral
Lilium parryi	lemon lily	Monocots	PMLIL1A0J0	160	1	None	None	G3	S3	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Lower montane coniferous forest, Meadow & seep, Riparian forest, Upper montane coniferous forest, Wetland
Limnanthes alba ssp. parishii	Parish's meadowfoam	Dicots	PDLIM02052	33	2	None	Endangered	G4T2	S2	1B.2	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_USDA-US Dept of Agriculture, USFS_S-Sensitive	Lower montane coniferous forest, Meadow & seep, Vernal pool, Wetland
Monardella hypoleuca ssp. lanata	felt-leaved monardella	Dicots	PDLAM180A2	60	22	None	None	G4T3	S3	1B.2	BLM_S-Sensitive, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, USFS_S-Sensitive	Chaparral, Cismontane woodland
Monardella nana ssp. leptosiphon	San Felipe monardella	Dicots	PDLAM180F2	40	2	None	None	G4G5T2Q	S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, USFS_S-Sensitive	Chaparral, Lower montane coniferous forest
Monardella viminea	willowy monardella	Dicots	PDLAM18140	30	3	Endangered	Endangered	G1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral, Coastal scrub, Riparian forest, Riparian scrub, Riparian woodland
Myosurus minimus ssp. apus	little mousetail	Dicots	PDRAN0H031	24	3	None	None	G5T2Q	S2	3.1	SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Valley & foothill grassland, Vernal pool, Wetland
Myotis ciliolabrum	western small-footed myotis	Mammals	AMACC01140	82	10	None	None	G5	S3	null	BLM_S-Sensitive, IUCN_LC-Least Concern, WBWG_M-Medium Priority	null
Myotis evotis	long-eared myotis	Mammals	AMACC01070	139	5	None	None	G5	S3	null	BLM_S-Sensitive, IUCN_LC-Least Concern, WBWG_M-Medium Priority	null
Myotis yumanensis	Yuma myotis	Mammals	AMACC01020	265	9	None	None	G5	S4	null	BLM_S-Sensitive, IUCN_LC-Least Concern, WBWG_LM-Low-Medium Priority	Lower montane coniferous forest, Riparian forest, Riparian woodland, Upper montane coniferous forest
Nama stenocarpa	mud nama	Dicots	PDHYD0A0H0	22	1	None	None	G4G5	S1S2	2B.2	null	Marsh & swamp, Wetland
Navarretia fossalis	spreading navarretia	Dicots	PDPLM0C080	82	3	Threatened	None	G2	S2	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Alkali playa, Chenopod scrub, Marsh & swamp, Vernal pool, Wetland
Navarretia peninsularis	Baja navarretia	Dicots	PDPLM0C0L0	35	1	None	None	G3	S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral, Lower montane coniferous forest, Meadow & seep, Pinon & juniper woodlands
Neotoma lepida intermedia	San Diego desert woodrat	Mammals	AMAFF08041	132	2	None	None	G5T3T4	S3S4	null	CDFW_SSC-Species of Special Concern	Coastal scrub
Nolina cismontana	chaparral nolina	Monocots	PMAGA080E0	68	1	None	None	G3	S3	1B.2	SB_CalBG/RSABG-California/Rancho	Chaparral, Coastal scrub,

											Santa Ana Botanic Garden, SB_SBBG-Santa Barbara Botanic Garden, USFS_S-Sensitive	Ultramafic
Nyctinomops femorosaccus	pocketed free-tailed bat	Mammals	AMACD04010	90	11	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, WBWG_M-Medium Priority	Joshua tree woodland, Pinon & juniper woodlands, Riparian scrub, Sonoran desert scrub
Nyctinomops macrotis	big free-tailed bat	Mammals	AMACD04020	32	2	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, WBWG_MH-Medium-High Priority	null
Packera ganderi	Gander's ragwort	Dicots	PDAST8H1F0	14	3	None	Rare	G2	S2	1B.2	BLM_S-Sensitive, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, USFS_S-Sensitive	Chaparral, Ultramafic
Phrynosoma blainvillii	coast horned lizard	Reptiles	ARACF12100	784	35	None	None	G3G4	S3S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Chaparral, Cismontane woodland, Coastal bluff scrub, Coastal scrub, Desert wash, Pinon & juniper woodlands, Riparian scrub, Riparian woodland, Valley & foothill grassland
Plestiodon skiltonianus interparietalis	Coronado skink	Reptiles	ARACH01114	36	1	None	None	G5T5	S2S3	null	BLM_S-Sensitive, CDFW_WL-Watch List	Chaparral, Cismontane woodland, Pinon & juniper woodlands
Polioptila californica californica	coastal California gnatcatcher	Birds	ABPBJ08081	1087	37	Threatened	None	G4G5T3Q	S2	null	CDFW_SSC-Species of Special Concern, NABCI_YWL-Yellow Watch List	Coastal bluff scrub, Coastal scrub
Progne subis	purple martin	Birds	ABPAU01010	71	1	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Broadleaved upland forest, Lower montane coniferous forest
Pyrocephalus rubinus	vermilion flycatcher	Birds	ABPAE36010	25	1	None	None	G5	S2S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Marsh & swamp, Riparian forest, Riparian scrub, Riparian woodland, Wetland
Quercus cedrosensis	Cedros Island oak	Dicots	PDFAG05650	9	2	None	None	G3	S1	2B.2	IUCN_VU-Vulnerable	Chaparral, Closed-cone coniferous forest, Coastal scrub
Ribes canthariforme	Moreno currant	Dicots	PDGRO02070	27	6	None	None	G2	S2	1B.3	SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, USFS_S-Sensitive	Chaparral, Riparian scrub
Salvadora hexalepis virgultea	coast patch-nosed snake	Reptiles	ARADB30033	34	3	None	None	G5T4	S2S3	null	CDFW_SSC-Species of Special Concern	Coastal scrub
Scutellaria bolanderi ssp. austromontana	southern mountains skullcap	Dicots	PDLAM1U0A1	43	5	None	None	G4T3	S3	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral, Cismontane woodland, Lower montane coniferous forest
Setophaga petechia	yellow warbler	Birds	ABPBX03010	78	1	None	None	G5	S3S4	null	CDFW_SSC-Species of Special Concern	Riparian forest, Riparian scrub, Riparian woodland
Southern Coast Live Oak Riparian Forest	Southern Coast Live Oak Riparian Forest	Riparian	CTT61310CA	246	2	None	None	G4	S4	null	null	Riparian forest
Southern Sycamore Alder Riparian Woodland	Southern Sycamore Alder Riparian Woodland	Riparian	CTT62400CA	230	1	None	None	G4	S4	null	null	Riparian woodland

Spea hammondii	western spadefoot	Amphibians	AAABF02020	1422	60	None	None	G2G3	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened	Cismontane woodland, Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland
Sphaerocarpos drewiae	bottle liverwort	Bryophytes	NBHEP35030	23	1	None	None	G1	S1	1B.1	IUCN_EN-Endangered	Chaparral, Coastal scrub
Sphenopholis obtusata	prairie wedge grass	Monocots	PMPOA5T030	19	1	None	None	G5	S2	2B.2	null	Cismontane woodland, Meadow & seep, Wetland
Streptanthus campestris	southern jewelflower	Dicots	PDBRA2G0B0	73	1	None	None	G3	S3	1B.3	BLM_S-Sensitive, USFS_S-Sensitive	Chaparral, Lower montane coniferous forest, Pinon & juniper woodlands
Streptocephalus woottoni	Riverside fairy shrimp	Crustaceans	ICBRA07010	83	1	Endangered	None	G1G2	S1S2	null	IUCN_EN-Endangered	Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland
Symphyotrichum defoliatum	San Bernardino aster	Dicots	PDASTE80C0	102	10	None	None	G2	S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, USFS_S-Sensitive	Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Marsh & swamp, Meadow & seep, Valley & foothill grassland
Taricha torosa	Coast Range newt	Amphibians	AAAAF02032	88	3	None	None	G4	S4	null	CDFW_SSC-Species of Special Concern	null
Taxidea taxus	American badger	Mammals	AMAJF04010	594	14	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Alkali marsh, Alkali playa, Alpine, Alpine dwarf scrub, Bog & fen, Brackish marsh, Broadleaved upland forest, Chaparral, Chenopod scrub, Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal dunes, Coastal prairie, Coastal scrub, Desert dunes, Desert wash, Freshwater marsh, Great Basin grassland, Great Basin scrub, Interior dunes, Ione formation, Joshua tree woodland, Limestone, Lower montane coniferous forest, Marsh & swamp, Meadow & seep, Mojavean desert scrub, Montane dwarf scrub, North coast coniferous forest, Oldgrowth, Pavement plain, Redwood, Riparian forest, Riparian scrub, Riparian woodland, Salt marsh, Sonoran desert scrub, Sonoran thorn woodland, Ultramafic, Upper montane coniferous

												forest, Upper Sonoran scrub, Valley & foothill grassland
Tetracoccus dioicus	Parry's tetracoccus	Dicots	PDEUP1C010	49	5	None	None	G2G3	S2	1B.2	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, USFS_S-Sensitive	Chaparral, Coastal scrub, Ultramafic
Thamnophis hammondii	two-striped gartersnake	Reptiles	ARADB36160	184	5	None	None	G4	S3S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive	Marsh & swamp, Riparian scrub, Riparian woodland, Wetland
Thamnophis sirtalis pop. 1	south coast gartersnake	Reptiles	ARADB3613F	3	1	None	None	G5T1T2	S1S2	null	CDFW_SSC-Species of Special Concern	Artificial standing waters, Marsh & swamp, Riparian scrub, Riparian woodland, South coast flowing waters, South coast standing waters, Wetland
Thermopsis californica var. semota	velvety false lupine	Dicots	PDFAB3Z013	53	10	None	None	G4T2	S2	1B.2	SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, USFS_S-Sensitive	Cismontane woodland, Lower montane coniferous forest, Meadow & seep, Valley & foothill grassland, Wetland
Triquetrella californica	coastal triquetrella	Bryophytes	NBMUS7S010	13	1	None	None	G2	S2	1B.2	USFS_S-Sensitive	Coastal bluff scrub, Coastal scrub
Vireo bellii pusillus	least Bell's vireo	Birds	ABPBW01114	504	10	Endangered	Endangered	G5T2	S2	null	IUCN_NT-Near Threatened, NABCI_YWL-Yellow Watch List	Riparian forest, Riparian scrub, Riparian woodland

Search Results

99 matches found. Click on scientific name for details

Search Criteria: 9-Quad include [**3311616:3311627:3311626:3211686:3311617:3311628:3311618:3211688:3211687**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK
Acanthomintha ilicifolia	San Diego thorn-mint	Lamiaceae	annual herb	Apr-Jun	FT	CE	G1	S1	1B.1
Adolphia californica	California adolphia	Rhamnaceae	perennial deciduous shrub	Dec-May	None	None	G3	S2	2B.1
Allium marvinii	Yucaipa onion	Alliaceae	perennial bulbiferous herb	Apr-May	None	None	G1	S1	1B.2
Artemisia palmeri	San Diego sagewort	Asteraceae	perennial deciduous shrub	(Feb)May-Sep	None	None	G3?	S3?	4.2
Asplenium vespertinum	western spleenwort	Aspleniaceae	perennial rhizomatous herb	Feb-Jun	None	None	G4	S4	4.2
Astragalus deanei	Dean's milk-vetch	Fabaceae	perennial herb	Feb-May	None	None	G1	S1	1B.1
Astragalus oocarpus	San Diego milk-vetch	Fabaceae	perennial herb	May-Aug	None	None	G2?	S2?	1B.2
Atriplex coulteri	Coulter's saltbush	Chenopodiaceae	perennial herb	Mar-Oct	None	None	G3	S1S2	1B.2
Atriplex parishii	Parish's brittlescale	Chenopodiaceae	annual herb	Jun-Oct	None	None	G1G2	S1	1B.1
Baccharis vanessae	Encinitas baccharis	Asteraceae	perennial deciduous shrub	Aug-Nov	FT	CE	G1	S1	1B.1
Bloomeria clevelandii	San Diego goldenstar	Themidaceae	perennial bulbiferous herb	Apr-May	None	None	G2	S3	1B.1
Brodiaea filifolia	thread-leaved brodiaea	Themidaceae	perennial bulbiferous herb	Mar-Jun	FT	CE	G2	S2	1B.1
Brodiaea orcuttii	Orcutt's brodiaea	Themidaceae	perennial bulbiferous herb	May-Jul	None	None	G2	S2	1B.1
Calandrinia breweri	Brewer's calandrinia	Montiaceae	annual herb	(Jan)Mar-Jun	None	None	G4	S4	4.2
Calochortus dunnii	Dunn's mariposa-lily	Liliaceae	perennial bulbiferous herb	(Feb)Apr-Jun	None	CR	G2G3	S2S3	1B.2
Calochortus palmeri var. *munzii*	San Jacinto mariposa-lily	Liliaceae	perennial bulbiferous herb	Apr-Jul	None	None	G3T3	S3	1B.2
Camissoniopsis lewisii	Lewis' evening-primrose	Onagraceae	annual herb	Mar-May(Jun)	None	None	G4	S4	3
Caulanthus simulans	Payson's jewelflower	Brassicaceae	annual herb	(Feb)Mar-May(Jun)	None	None	G4	S4	4.2
Ceanothus cyaneus	Lakeside ceanothus	Rhamnaceae	perennial evergreen shrub	Apr-Jun	None	None	G2	S2	1B.2

Ceanothus otayensis	Otay Mountain ceanothus	Rhamnaceae	perennial evergreen shrub	Jan-Apr	None	None	G1G2	S1	1B.2
Ceanothus verrucosus	wart-stemmed ceanothus	Rhamnaceae	perennial evergreen shrub	Dec-May	None	None	G2	S2?	2B.2
Centromadia parryi ssp. *australis*	southern tarplant	Asteraceae	annual herb	May-Nov	None	None	G3T2	S2	1B.1
Centromadia pungens ssp. *laevis*	smooth tarplant	Asteraceae	annual herb	Apr-Sep	None	None	G3G4T2	S2	1B.1
Chamaebatia australis	southern mountain misery	Rosaceae	perennial evergreen shrub	Nov-May	None	None	G4	S4	4.2
Chorizanthe leptotheca	Peninsular spineflower	Polygonaceae	annual herb	May-Aug	None	None	G3	S3	4.2
Chorizanthe polygonoides var. *longispina*	long-spined spineflower	Polygonaceae	annual herb	Apr-Jul	None	None	G5T3	S3	1B.2
Clarkia delicata	delicate clarkia	Onagraceae	annual herb	Apr-Jun	None	None	G3	S3	1B.2
Clinopodium chandleri	San Miguel savory	Lamiaceae	perennial shrub	Mar-Jul	None	None	G3	S2	1B.2
Comarostaphylis diversifolia ssp. *diversifolia*	summer holly	Ericaceae	perennial evergreen shrub	Apr-Jun	None	None	G3T2	S2	1B.2
Convolvulus simulans	small-flowered morning-glory	Convolvulaceae	annual herb	Mar-Jul	None	None	G4	S4	4.2
Deinandra floribunda	Tecate tarplant	Asteraceae	annual herb	Aug-Oct	None	None	G2	S2	1B.2
Deinandra paniculata	paniculate tarplant	Asteraceae	annual herb	(Mar)Apr-Nov	None	None	G4	S4	4.2
Delphinium hesperium ssp. *cuyamacae*	Cuyamaca larkspur	Ranunculaceae	perennial herb	May-Jul	None	CR	G4T2	S2	1B.2
Delphinium parishii ssp. *subglobosum*	Colorado Desert larkspur	Ranunculaceae	perennial herb	Mar-Jun	None	None	G4T4	S4	4.3
Dichondra occidentalis	western dichondra	Convolvulaceae	perennial rhizomatous herb	(Jan)Mar-Jul	None	None	G3G4	S3S4	4.2
Diplacus aridus	low bush monkeyflower	Phrymaceae	perennial evergreen shrub	Apr-Jul	None	None	G4	S3	4.3
Diplacus clevelandii	Cleveland's bush monkeyflower	Phrymaceae	perennial rhizomatous herb	Apr-Jul	None	None	G4	S4	4.2
Downingia concolor var. *brevior*	Cuyamaca Lake downingia	Campanulaceae	annual herb	May-Jul	None	CE	G4T1	S1	1B.1
Dudleya alainae	Banner dudleya	Crassulaceae	perennial herb	Apr-Jul	None	None	G2Q	S2	3.2
Dudleya variegata	variegated dudleya	Crassulaceae	perennial herb	Apr-Jun	None	None	G2	S2	1B.2
Ericameria palmeri var. *palmeri*	Palmer's goldenbush	Asteraceae	perennial evergreen shrub	(Jul)Sep-Nov	None	None	G4T2?	S2	1B.1
Eryngium aristulatum var. *parishii*	San Diego button-celery	Apiaceae	annual/perennial herb	Apr-Jun	FE	CE	G5T1	S1	1B.1
Erythranthe diffusa	Palomar	Phrymaceae	annual herb	Apr-Jun	None	None	G4	S3	4.3

	monkeyflower								
Ferocactus viridescens	San Diego barrel cactus	Cactaceae	perennial stem	May-Jun	None	None	G3?	S2S3	2B.1
Githopsis diffusa ssp. *filicaulis*	Mission Canyon bluecup	Campanulaceae	annual herb	Apr-Jun	None	None	G5T1Q	S1	3.1
Grindelia hallii	San Diego gumplant	Asteraceae	perennial herb	May-Oct	None	None	G2	S2	1B.2
Harpagonella palmeri	Palmer's grapplinghook	Boraginaceae	annual herb	Mar-May	None	None	G4	S3	4.2
Hesperocyparis forbesii	Tecate cypress	Cupressaceae	perennial evergreen tree		None	None	G2	S2	1B.1
Hesperocyparis stephensonii	Cuyamaca cypress	Cupressaceae	perennial evergreen tree		None	None	G1	S1	1B.1
Heuchera parishii	Parish's alumroot	Saxifragaceae	perennial rhizomatous herb	Jun-Aug	None	None	G3	S3	1B.3
Holocarpha virgata ssp. *elongata*	graceful tarplant	Asteraceae	annual herb	May-Nov	None	None	G5T3	S3	4.2
Hordeum intercedens	vernal barley	Poaceae	annual herb	Mar-Jun	None	None	G3G4	S3S4	3.2
Horkelia truncata	Ramona horkelia	Rosaceae	perennial herb	May-Jun	None	None	G3	S3	1B.3
Hulsea californica	San Diego sunflower	Asteraceae	perennial herb	Apr-Jun	None	None	G3	S3	1B.3
Hymenothrix wrightii	Wright's hymenothrix	Asteraceae	perennial herb	Jun-Oct	None	None	G5	S3	4.3
Isocoma menziesii var. *decumbens*	decumbent goldenbush	Asteraceae	perennial shrub	Apr-Nov	None	None	G3G5T2T3	S2	1B.2
Iva hayesiana	San Diego marsh-elder	Asteraceae	perennial herb	Apr-Oct	None	None	G3	S2	2B.2
Juglans californica	Southern California black walnut	Juglandaceae	perennial deciduous tree	Mar-Aug	None	None	G4	S4	4.2
Juncus acutus ssp. *leopoldii*	southwestern spiny rush	Juncaceae	perennial rhizomatous herb	(Mar)May-Jun	None	None	G5T5	S4	4.2
Lathyrus splendens	pride-of-California	Fabaceae	perennial herb	Mar-Jun	None	None	G4	S4	4.3
Lepechinia cardiophylla	heart-leaved pitcher sage	Lamiaceae	perennial shrub	Apr-Jul	None	None	G3	S2S3	1B.2
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	Brassicaceae	annual herb	Jan-Jul	None	None	G5T3	S3	4.3
Leptosiphon grandiflorus	large-flowered leptosiphon	Polemoniaceae	annual herb	Apr-Aug	None	None	G3G4	S3S4	4.2
Lessingia glandulifera var. *tomentosa*	Warner Springs lessingia	Asteraceae	annual herb	Aug-Oct	None	None	G4?T2	S2	1B.1
Lilium humboldtii ssp. *ocellatum*	ocellated Humboldt lily	Liliaceae	perennial bulbiferous herb	Mar-Jul(Aug)	None	None	G4T4?	S4?	4.2
Lilium parryi	lemon lily	Liliaceae	perennial bulbiferous herb	Jul-Aug	None	None	G3	S3	1B.2
Limnanthes alba ssp.	Parish's	Limnanthaceae	annual herb	Apr-Jun	None	CE	G4T2	S2	1B.2

parishii	meadowfoam								
Microseris douglasii ssp. *platycarpha*	small-flowered microseris	Asteraceae	annual herb	Mar-May	None	None	G4T4	S4	4.2
Monardella hypoleuca ssp. *lanata*	felt-leaved monardella	Lamiaceae	perennial rhizomatous herb	Jun-Aug	None	None	G4T3	S3	1B.2
Monardella nana ssp. *leptosiphon*	San Felipe monardella	Lamiaceae	perennial rhizomatous herb	Jun-Jul	None	None	G4G5T2Q	S2	1B.2
Monardella viminea	willowy monardella	Lamiaceae	perennial herb	Jun-Aug	FE	CE	G1	S1	1B.1
Myosurus minimus ssp. *apus*	little mousetail	Ranunculaceae	annual herb	Mar-Jun	None	None	G5T2Q	S2	3.1
Nama stenocarpa	mud nama	Namaceae	annual/perennial herb	Jan-Jul	None	None	G4G5	S1S2	2B.2
Navarretia fossalis	spreading navarretia	Polemoniaceae	annual herb	Apr-Jun	FT	None	G2	S2	1B.1
Navarretia peninsularis	Baja navarretia	Polemoniaceae	annual herb	(May)Jun-Aug	None	None	G3	S2	1B.2
Nolina cismontana	chaparral nolina	Ruscaceae	perennial evergreen shrub	(Mar)May-Jul	None	None	G3	S3	1B.2
Ophioglossum californicum	California adder's-tongue	Ophioglossaceae	perennial rhizomatous herb	Jan-Jun(Dec)	None	None	G4	S4	4.2
Packera ganderi	Gander's ragwort	Asteraceae	perennial herb	Apr-Jun	None	CR	G2	S2	1B.2
Pentachaeta aurea ssp. *aurea*	golden-rayed pentachaeta	Asteraceae	annual herb	Mar-Jul	None	None	G4T3	S3	4.2
Pickeringia montana var. *tomentosa*	woolly chaparral-pea	Fabaceae	evergreen shrub	May-Aug	None	None	G5T3T4	S3S4	4.3
Piperia cooperi	chaparral rein orchid	Orchidaceae	perennial herb	Mar-Jun	None	None	G3G4	S3S4	4.2
Piperia leptopetala	narrow-petaled rein orchid	Orchidaceae	perennial herb	May-Jul	None	None	G4	S4	4.3
Polygala cornuta var. *fishiae*	Fish's milkwort	Polygalaceae	perennial deciduous shrub	May-Aug	None	None	G5T4	S4	4.3
Quercus cedrosensis	Cedros Island oak	Fagaceae	perennial evergreen tree	Apr-May	None	None	G3	S1	2B.2
Quercus engelmannii	Engelmann oak	Fagaceae	perennial deciduous tree	Mar-Jun	None	None	G3	S3	4.2
Ribes canthariforme	Moreno currant	Grossulariaceae	perennial deciduous shrub	Feb-Apr	None	None	G2	S2	1B.3
Saltugilia caruifolia	caraway-leaved woodland-gilia	Polemoniaceae	annual herb	May-Aug	None	None	G4	S4	4.3
Scutellaria bolanderi ssp. *austromontana*	southern mountains skullcap	Lamiaceae	perennial rhizomatous herb	Jun-Aug	None	None	G4T3	S3	1B.2
Selaginella cinerascens	ashy spike-moss	Selaginellaceae	perennial rhizomatous herb		None	None	G3G4	S3	4.1
Sphaerocarpos drewiae	bottle liverwort	Sphaerocarpaceae	ephemeral liverwort		None	None	G1	S1	1B.1

Sphenopholis obtusata	prairie wedge grass	Poaceae	perennial herb	Apr-Jul	None	None	G5	S2	2B.2
Stipa diegoensis	San Diego County needle grass	Poaceae	perennial herb	Feb-Jun	None	None	G4	S4	4.2
Streptanthus campestris	southern jewelflower	Brassicaceae	perennial herb	(Apr)May-Jul	None	None	G3	S3	1B.3
Symphyotrichum defoliatum	San Bernardino aster	Asteraceae	perennial rhizomatous herb	Jul-Nov	None	None	G2	S2	1B.2
Tetracoccus dioicus	Parry's tetracoccus	Picrodendraceae	perennial deciduous shrub	Apr-May	None	None	G2G3	S2	1B.2
Thermopsis californica var. *semota*	velvety false lupine	Fabaceae	perennial rhizomatous herb	Mar-Jun	None	None	G4T2	S2	1B.2
Triquetrella californica	coastal triquetrella	Pottiaceae	moss		None	None	G2	S2	1B.2
Viguiera laciniata	San Diego County viguiera	Asteraceae	perennial shrub	Feb-Jun(Aug)	None	None	G4	S4	4.3
Xanthisma junceum	rush-like bristleweed	Asteraceae	perennial herb	Jan-Oct	None	None	G5	S4	4.3

Showing 1 to 99 of 99 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2022. Rare Plant Inventory (online edition, v9-01 1.5). Website https://www.rareplants.cnps.org [accessed 8 July 2022].

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

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

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

Project information

NAME

Ramona RICC

LOCATION

San Diego County, California

DESCRIPTION

None

Local office

Carlsbad Fish And Wildlife Office

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

2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385

Endangered species

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

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

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

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

1. Log in to IPaC.
2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

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

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

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of

Commerce.

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

Birds

NAME	STATUS
Coastal California Gnatcatcher *Polioptila californica californica* Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo *Vireo bellii pusillus* Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher *Empidonax traillii extimus* Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/6749	Endangered

Amphibians

NAME	STATUS
Arroyo (=arroyo Southwestern) Toad *Anaxyrus californicus* Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/3762	Endangered

Insects

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

Crustaceans

NAME	STATUS
San Diego Fairy Shrimp Branchinecta sandiegonensis Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/6945	Endangered

Flowering Plants

NAME	STATUS
San Diego Thornmint Acanthomintha ilicifolia Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/351	Threatened
Spreading Navarretia Navarretia fossalis Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/1334	Threatened

Critical habitats

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

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

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

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.

2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

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

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

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Allen's Hummingbird Selasphorus sasin — Breeds Feb 1 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9637

Bald Eagle Haliaeetus leucocephalus — Breeds Jan 1 to Aug 31
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1626

Black-chinned Sparrow Spizella atrogularis — Breeds Apr 15 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9447

California Thrasher Toxostoma redivivum — Breeds Jan 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/2084

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

Marbled Godwit Limosa fedoa — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9481

Nuttall's Woodpecker Picoides nuttallii — Breeds Apr 1 to Jul 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9410

Oak Titmouse Baeolophus inornatus — Breeds Mar 15 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656

Tricolored Blackbird Agelaius tricolor — Breeds Mar 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3910

Willet Tringa semipalmata — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Wrentit Chamaea fasciata — Breeds Mar 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

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

Probability of Presence (■)

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

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

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events

for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

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

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

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

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

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

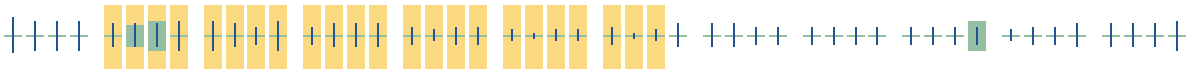
No Data (–)
A week is marked as having no data if there were no survey events for that week.

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

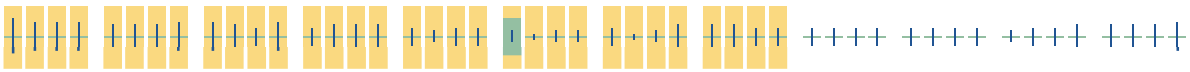
■ probability of presence ■ breeding season | survey effort – no data

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

Allen's Hummingbird BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

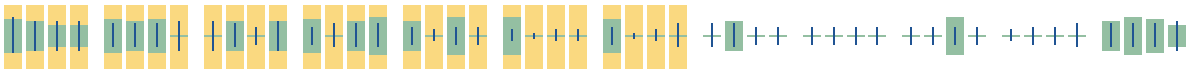


Bald Eagle Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)

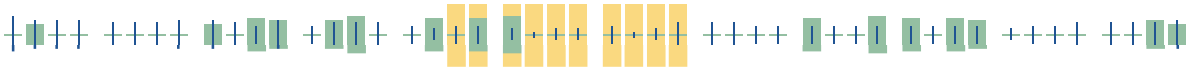


Black-chinned Sparrow BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

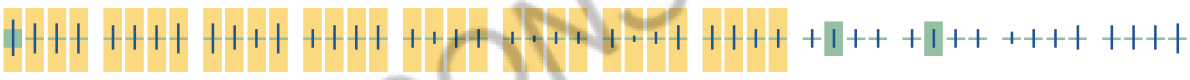
California Thrasher BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



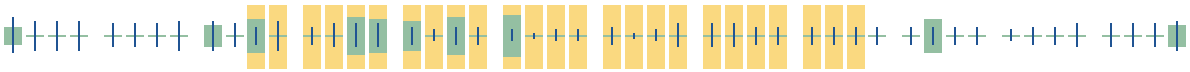
Common Yellowthroat BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



Golden Eagle Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)



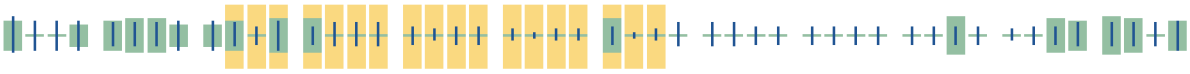
Lawrence's Goldfinch BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Marbled Godwit BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Nuttall's Woodpecker BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Oak Titmouse BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



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

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

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

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

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

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

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

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

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

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

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

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

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

Details about birds that are potentially affected by offshore projects

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

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

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

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

Coastal Barrier Resources System

Projects within the John H. Chafee Coastal Barrier Resources System (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local Ecological Services Field Office or visit the CBRA

Consultations website. The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

THERE ARE NO KNOWN COASTAL BARRIERS AT THIS LOCATION.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the official CBRS maps. The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

Facilities

National Wildlife Refuge lands

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

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

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

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

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

Riverine

A full description for each wetland code can be found at the National Wetlands Inventory website

Data limitations

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

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

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

Data exclusions

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

Data precautions

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

Attachment B
Site Photographs

ESA

PHOTOGRAPH 1: View of urban/developed and non-native grassland: broadleafed-dominated areas in the central portion of the study area (looking northeast).

PHOTOGRAPH 2: View of disturbed emergent wetland in the foreground with southern willow scrub in the background (looking north) within the southwestern portion of the study area.

PHOTOGRAPH 3: View of salt grass and southern willow scrub in the background (looking northeast) and non-native grassland in the foreground within the western portion of the study area.

PHOTOGRAPH 4: View of non-native grassland: broadleafed-dominated in the foreground with southern cottonwood-willow riparian forest and urban/developed in the background (looking southwest) within the northwestern portion of the study area.

D150334.07

SOURCE: ESA, 2021

Paseo Norte Senior Affordable Housing Project

Attachment B
Site Photographs

ESA

Attachment C
Regulatory Framework

ESA

ATTACHMENT C
Regulatory Framework

1.1 Federal

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

The Federal Endangered Species Act (FESA) and subsequent amendments provides for the conservation and protection of wildlife and plant species that are listed or proposed for listing as endangered or threatened species and the ecosystems upon which they depend. The FESA also provides statutory framework for the conservation and recovery of threatened and endangered species as well as for the conservation of designated critical habitat that U.S. Fish and Wildlife Service (USFWS) determines is required for the survival and recovery of these listed species.

Section 7 of the FESA requires federal agencies, in consultation with and assistance from the Secretary of the Interior or the Secretary of Commerce, as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. The USFWS and National Marine Fisheries Service (NMFS) share responsibilities for administering the FESA. Regulations governing interagency cooperation under Section 7 are found in California Code of Regulations (CCR) Title 50, Part 402. The opinion issued at the conclusion of consultation will include a statement authorizing "take" (to harass, harm, pursue, hunt, wound, kill, etc.) that may occur incidental to an otherwise legal activity. Although federal funding is not expected, if the proposed project were to receive federal funding the funding agency would be required to initiate a consultation with USFWS under Section 7. The consultation process would then lead to issuance of a Biological Opinion from USFWS. In most cases, a Biological Opinion addresses the proposed project's potential to result in "take" of listed species (as defined below), and includes mandatory conditions that would allow for limited incidental take to occur subject to prescribed conditions.

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

Section 10 provides a means whereby a non-federal action with the potential to result in take of a listed species can be allowed under an incidental take permit which may be issued once a Habitat Conservation Plan (HCP) is approved. Application procedures are found at 50 CFR 13 and 17 for species under the jurisdiction of USFWS and 50 CFR 217, 220, and 222 for species under the jurisdiction of NMFS.

1.1.2 Migratory Bird Treaty Act (16 USC 703 through 711)

The Migratory Bird Treaty Act (MBTA) is the domestic law that affirms, or implements, a commitment by the U.S. to four international conventions (with Canada, Mexico, Japan, and Russia) for the protection of a shared migratory bird resource. The MBTA makes it unlawful at any time, by any means, or in any manner to pursue, hunt, take, capture, or kill migratory birds. ‘‘Migratory bird’’ means any bird protected by any of the treaties and currently includes 1,027 bird species in the United States (50 CFR 10.13), regardless of whether the particular species actually migrates. The law also applies to the removal of nests occupied by migratory birds during the breeding season. The MBTA makes it unlawful to take, pursue, molest, or disturb these species, their nests, or their eggs anywhere in the United States.

1.1.3 Bald and Golden Eagle Act

The Bald and Golden Eagle Protection Act was originally enacted in 1940 as the Bald Eagle Protection Act to protect bald eagles, and was later amended to include golden eagles. The Act prohibits the taking, possession, or commerce in bald and golden eagles, parts, feathers, nests, or eggs with limited exceptions. Take is defined as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb”, and includes both direct taking of individuals and take due to disturbance. “Disturb” is defined as:

> *“to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to any eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.”*[1]

The definition of “disturb” is further defined by USFWS as follows:

> *“In addition to immediate impacts, this definition also covers impacts that result from human-caused alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagles return, such alterations agitate or bother an eagle to a degree that injures an eagle or substantially interferes with normal breeding, feeding, or sheltering.”*[2]

Bald eagles may not be taken for any purpose unless a permit is issued prior to the taking. Activities which can be authorized by permit include scientific collection/research, exhibition,

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1 *50 CFR 22.3*

2 *USFWS. 2007.* National Bald Eagle Management Guidelines.

tribal religious, depredation, falconry, and the taking of inactive golden eagle nests, which interfere with resource development or recovery operations. Currently, USFWS has a permitting process proposed for other activities that would allow disturbance to bald eagles or take of an eagle nest where their location poses a risk to human or eagle safety.

1.1.4 Federal Clean Water Act (33 USC 1251 through 1376)

The U.S. Army Corps of Engineers (USACE) regulates “discharge of dredged or fill material” into “waters” of the United States, which includes tidal waters, interstate waters, and "all other waters, interstate lakes, rivers, streams (including intermittent streams), mud flats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce or which are tributaries to waters subject to the ebb and flow of the tide" (33 C.F.R. 328.3(a)), pursuant to provisions of Section 404 of the Clean Water Act (CWA). The CWA also excludes certain features from this regulation, including “wastewater recycling facility constructed on dry land” (see 33 CFR §230.3 (o)(2)(vii)). Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.11(m) which also meet the criteria of this definition) are not considered waters of the U.S.

1.1.5 Fish and Wildlife Conservation Act

The Fish and Wildlife Conservation Act declares that fish and wildlife are of ecological, educational, esthetic, cultural, recreational, economic, and scientific value to the United States. The purposes of this Act are to encourage all federal departments and agencies to utilize their statutory and administrative authority, to the maximum extent practicable and consistent with each agency's statutory responsibilities and to conserve and to promote conservation of non-game fish and wildlife and their habitats. Another purpose is to provide financial and technical assistance to the states for the development, revision, and implementation of conservation plans and programs for nongame fish and wildlife.

1.2 State

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

The California Endangered Species Act (CESA) establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA mandates that state agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. There are no state agency consultation procedures under CESA. For projects that would affect a listed species under both CESA and FESA, compliance with FESA would satisfy CESA if the California Department of Fish and Wildlife (CDFW) determines that the federal incidental take authorization is “consistent” with CESA under California Fish and Game Code Section 2080.1. For projects that would result in take of a species listed under the CESA only, the project operator would have to apply for a take permit under Section 2081(b).

1.2.2 California Fish and Game Code § 1600 et seq.

CDFW is responsible for protecting and conserving fish and wildlife resources, and the habitats upon which they depend. Under Section 1600 of the California Fish and Game Code, CDFW administers the Lake and Streambed Alteration (LSA) Program and regulates all substantial diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

Applicants proposing changes to such regulated water resources must submit a Lake or Streambed Alteration Notification to CDFW for such projects. CDFW will then determine if the proposed activity may substantially adversely affect an existing fish or wildlife resource and will issue a final agreement for the applicant's signature that includes reasonable measures necessary to protect the resource. Preliminary notification to, and project review by CDFW may occur during or after the California Environmental Quality Act (CEQA) environmental review process but prior to project implementation.

1.2.3 California Fish and Game Code §§ 2080 and 2081

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

1.2.4 California Fish and Game Code §§ 3503, 3503.5, and 3513

These sections of the California Fish and Game Code prohibit activities that would result in the taking, possessing, or destroying of any birds of prey; the taking or possessing of any migratory nongame bird as designated in the MBTA; the taking, possessing, or needlessly destroying of the nest or eggs of any raptors or nongame birds protected by the MBTA; or the taking of any nongame bird pursuant to California Fish and Game Code Section 3800.

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

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

1.2.6 California Environmental Quality Act Guidelines, § 15380

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

1.2.7 California Water Quality Control Act (Porter-Cologne California Water Code Section 13260)

The State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB) (together "Boards") are the principal State agencies with primary responsibility for the coordination and control of water quality. The Boards regulate activities pursuant to Section 401(a)(1) of the federal CWA as well as the Porter Cologne Water Quality Control Act (Porter-Cologne) (Water Code Section 13260). Section 401 of the CWA 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 in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable water at the point 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.

In Porter-Cologne, the Legislature declared that the "State must be prepared to exercise its full power and jurisdiction to protect the quality of the waters in the State from degradation..." (California Water Code Section 13000). Porter-Cologne grants the Boards the authority to implement and enforce the water quality laws, regulations, policies and plans to protect the groundwater and surface waters of the State. It is important to note that enforcement of the State's water quality requirements is not solely the purview of the Boards and their staff. Other agencies (e.g., CDFW) have the ability to enforce certain water quality provisions in state law.

The State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (procedures), adopted by the State Water Resources Control Board on April 2, 2019, became effective May 28, 2020.

1.3 Regional or Local

1.3.1 North County Multiple Species Conservation Plan

The North County Multiple Species Conservation Plan (NCMSCP) is one of several large habitat conservation planning efforts in San Diego County. Although not yet formally adopted, the NCSMCP expands the South County Multiple Species Conservation Program (MSCP) into the northwestern unincorporated areas of the County. The NCMSCP is being prepared as a multiple species Habitat Conservation Plan (HCP) pursuant to section 10(a)(1)(B) of the FESA, as well as a Natural Community Conservation Plan (NCCP) under the California Natural Community Conservation Planning Act (NCCPA), and also satisfies the special rule conditions of FESA section 4(d) for the California gnatcatcher. The NCMSCP will provide the County with permits and authorizations issued by USFWS and CDFW (together referred to as the Wildlife Agencies) for the Incidental Take of listed threatened, endangered, and/or other species of concern covered by the plan. Implementation of the NCMSCP is intended to protect biodiversity and enhance the quality of life in the San Diego region while providing economic benefits by reducing constraints on future development outside of proposed preserve areas and decreasing the costs of compliance with federal and state laws protecting biological resources.

1.3.2 San Diego County Code of Regulatory Ordinances, Chapter 6. Resource Protection Ordinance

The San Diego County Code of Regulatory Ordinances, Chapter 6. Resource Protection Ordinance (RPO) was adopted in 1989 and amended in 1991 and 2007. RPO restricts to varying degrees impacts to various natural resources including wetlands, wetland buffers, floodplains, steep slopes, sensitive habitat lands and historical sites. RPO restricts uses in wetlands and limits impacts to sensitive habitat lands. Sensitive habitat lands include unique vegetation communities and/or habitat that is either necessary to support a viable sensitive species population, is critical to the proper functioning of a balanced natural ecosystem, or which serves as a functioning wildlife corridor.

Attachment D
Floral and Faunal Compendium

ESA

ATTACHMENT D
Floral and Faunal Compendium

FERNS

	Scientific Name	Common Name
Marsileaceae		**Water-clover Family**
	Marsilea vestita ssp. *vestita*	hairy waterclover

EUDICOTS

	Scientific Name	Common Name
Amaranthaceae		**Amaranth Family**
*	*Amaranthus albus*	tumbling pigweed
Anacardiaceae		**Sumac Family**
*	*Schinus molle*	Peruvian peppertree
Apiaceae		**Carrot Family**
*	*Conium maculatum*	poison hemlock
*	*Foeniculum vulgare*	sweet fennel
Asteraceae		**Aster Family**
	Ambrosia acanthicarpa	annual bursage
	Artemisia douglasiana	mugwort
	Baccharis pilularis	coyotebrush
	Baccharis salicifolia ssp. *salicifolia*	mule fat
	Baccharis sarothroides	broom baccharis
*	*Carduus pycnocephalus* ssp. *pycnocephalus*	Italian thistle
*	*Centaurea melitensis*	tocalote
	Centromadia parryi ssp. *australis*	southern tarplant
*	*Erigeron bonariensis*	flaxleaved fleabane
*	*Cynara cardunculus*	artichoke thistle, cardoon
	Deinandra fasciculata	fascicled tarplant
*	*Dittrichia graveolens*	stinkwort
	Gnaphalium palustre	western marsh cudweed
*	*Hedypnois cretica*	Crete weed
	Heterotheca grandiflora	telegraphweed
*	*Hypochaeris glabra*	smooth cat's ear
	Isocoma menziesii	Menzies' goldenbush

EUDICOTS

	Scientific Name	Common Name
*	*Lactuca serriola*	prickly lettuce
*	*Logfia gallica*	narrowleaf cottonrose
*	*Matricaria discoidea*	pineapple weed
*	*Oncosiphon piluliferum*	stinknet
	Pseudognaphalium californicum	ladies' tobacco
*	*Silybum marianum*	blessed milkthistle
*	*Sonchus asper* ssp. *asper*	spiny sowthistle
	Stephanomeria virgata	rod wirelettuce
	Xanthium strumarium	rough cocklebur
	Bignoniaceae	**Bigninia Family**
*	*Tecoma capensis*	cape honeysuckle
	Boraginaceae	**Borage Family**
	Amsinckia intermedia	common fiddleneck
	Pectocarya linearis ssp. *ferocula*	sagebrush combseed
	Plagiobothrys nothofulvus	rusty popcornflower
	Brassicaceae	**Mustard Family**
*	*Lepidium didymum*	lesser swine cress
*	*Hirschfeldia incana*	shortpod mustard
*	*Raphanus sativus*	cultivated radish
*	*Sisymbrium altissimum*	tall tumblemustard
	Caryophyllaceae	**Pink Family**
*	*Spergularia bocconii*	Boccone's sandspurry
	Crassulaceae	**Stonecrop Family**
	Crassula aquatica	water pygmyweed
	Crassula connata	sand pygmyweed
	Euphorbiaceae	**Spurge Family**
	Croton setigerus	dove weed
	Fabaceae	**Legume Family**
	Acmispon americanus spp. americanus	Spanish clover
*	*Lathyrus latifolius*	everlasting pea
*	*Medicago polymorpha*	bur clover
*	*Medicago sativa*	alfalfa
*	*Parkinsonia aculeata*	Mexican palo verde
*	*Robinia pseudoacacia*	black locust
*	*Vicia villosa*	hairy vetch
	Geraniaceae	**Geranium Family**
*	*Erodium botrys*	longbeak stork's bill
*	*Erodium cicutarium*	redstem filaree
*	*Erodium moschatum*	musky stork's bill

EUDICOTS

	Scientific Name	Common Name
Hydrophyllaceae		**Waterleaf Family**
	Phacelia ramosissima	branching phacelia
Lamiaceae		**Mint Family**
*	*Marrubium vulgare*	horehound
Lythraceae		**Loosestrife Family**
*	*Lythrum hyssopifolia*	Hyssop loosestrife
Malvaceae		**Mallow Family**
*	*Malva parviflora*	cheeseweed
Myrsinaceae		**Myrsine Family**
*	*Lysimachia arvensis*	scarlet pimpernel
Onagraceae		**Evening Primrose Family**
	Camissonia strigulosa	sandy soil suncup
	Epilobium ciliatum	fringed willowherb
	Oenothera elata	evening primrose
Polygonaceae		**Buckwheat Family**
	Eriogonum fasciculatum	California buckwheat
*	*Rumex crispus*	curly dock
Montiaceae		**Purslane Family**
	Calandrinia menziesii	red maids
Salicaceae		**Willow Family**
	Populus fremontii ssp. *fremontii*	Fremont's cottonwood
	Salix exigua	sandbar willow
	Salix gooddingii	black willow
	Salix laevigata	red willow
	Salix lasiolepis	arroyo willow
Scrophulariaceae		**Figwort Family**
*	*Veronica anagallis-aquatica*	water speedwell
	Veronica peregrina ssp. xalapensis	purslane speedwell
Solanaceae		**Nightshade Family**
*	*Nicotiana glauca*	tree tobacco
Tamaricaceae		**Tamarix Family**
*	*Tamarix ramosissima*	Mediterranean tamarisk
Urticaceae		**Nettle Family**
	Urtica dioica	stinging nettle
*	*Urtica urens*	dwarf nettle
Zygophyllaceae		**Caltrop Family**
*	*Tribulus terrestris*	puncture vine

MONOCOTYLEDONS

Scientific Name	Common Name
Arecaceae	**Palm Family**
* *Phoenix canariensis*	Canary Island date palm
Cyperaceae	**Sedge Family**
Carex praegracilis	clustered field sedge
Carex spissa	San Diego sedge
Cyperus eragrostis	tall flat-sedge
Eleocharis macrostachya	pale spike-rush
Juncaceae	**Rush Family**
Juncus bufonius	toad rush
Juncus mexicanus	Mexican rush
Poaceae	**Grass Family**
* *Avena barbata*	slender wild oat
* *Bromus diandrus*	ripgut grass
* *Bromus hordeaceus*	soft chess
* *Bromus madritensis*	red brome
* *Cynodon dactylon*	Bermuda grass
Distichlis spicata	saltgrass
Elymus glaucus	blue wildrye
* *Festuca myuros*	rattail sixweeks grass
Hordeum marinum	seaside barley
* *Hordeum murinum ssp. leporinum*	barley
* *Lamarckia aurea*	goldentop
* *Stipa miliacea*	smilo grass
* *Poa annua*	annual bluegrass
* *Schismus barbatus*	Mediterranean schismus

INVERTEBRATES

Scientific Name	Common Name
Class: Crustacea (Order Anostraca)	**Butterflies and Moths**
Branchinecta lindahli	versatile fairy shrimp
Gastropoda	**Snails and Slugs**
Otala lactea	milk snail
Insecta (Order Lepidoptera)	**Butterflies and Moths**
Brephidium exila	western pygmy-blue

AMPHIBIANS

Scientific Name	Common Name
Hylidae	**Treefrogs**
Pseudacris cadaverina	California treefrog
Scaphiopodidae	**Spadefoot Toads**
Spea hammondii	western spadefoot

REPTILES

Scientific Name	Common Name
Phrynosomatidae	**Zebratail, Earless, Horned, Spiny, Fringe-Toed Lizards**
Sceloporus graciosus	common sagebrush lizard
Sceloporus occidentalis	western fence lizard
Uta stansburiana	common side-blotched lizard

BIRDS

Scientific Name	Common Name
Anatidae	**Waterfowl**
Anas platyrhynchos	mallard
Odontophoridae	**Quails**
Callipepla californica	California quail
Phalacrocoracidae	**Cormorants**
Phalacrocorax auritus	double-crested cormorant
Ardeidae	**Herons**
Ardea alba	great egret
Bubulcus ibis	cattle egret
Cathartidae	**New World Vultures**
Cathartes aura	turkey vulture
Accipitridae	**Hawks**
Accipiter cooperii	Cooper's hawk
Buteo jamaicensis	red-tailed hawk
Buteo lineatus	red-shouldered hawk
Elanus leucurus	white-tailed kite
Falconidae	**Falcons**
Falco sparverius	American kestrel

BIRDS

	Scientific Name	Common Name
	Charadriidae	**Plovers**
	Charadrius vociferus	killdeer
	Columbidae	**Pigeons and Doves**
*	*Columba livia*	rock pigeon
*	*Streptopelia decaocto*	Eurasian collared-dove
	Zenaida macroura	mourning dove
	Cuculidae	**Cuckoos and Roadrunners**
	Geococcyx californianus	greater roadrunner
	Strigidae	**True Owls**
	Bubo virginianus	great horned owl
	Trochilidae	**Hummingbirds**
	Calypte anna	Anna's hummingbird
	Calypte costae	Costa's hummingbird
	Selasphorus sasin	Allen's hummingbird
	Picidae	**Woodpeckers**
	Picoides nuttallii	Nuttall's woodpecker
	Picoides pubescens	downy woodpecker
	Tyrannidae	**Tyrant Flycatchers**
	Contopus sordidulus	western wood-pewee
	Empidonax difficilis	Pacific-slope flycatcher
	Myiarchus cinerascens	ash-throated flycatcher
	Sayornis nigricans	black phoebe
	Sayornis saya	Say's phoebe
	Tyrannus verticalis	western kingbird
	Tyrannus vociferans	Cassin's kingbird
	Vireonidae	**Vireos**
	Vireo bellii pusillus	least Bell’s vireo
	Vireo gilvus	warbling vireo
	Vireo huttoni	Hutton's vireo
	Corvidae	**Jays and Crows**
	Aphelocoma californica	California scrub-jay
	Corvus brachyrhynchos	American crow
	Corvus corax	common raven
	Hirundinidae	**Swallows**
	Petrochelidon pyrrhonota	cliff swallow
	Aegithalidae	**Bushtits**
	Psaltriparus minimus	bushtit

BIRDS

	Scientific Name	Common Name
	Troglodytidae	**Wrens**
	Thryomanes bewickii	Bewick's wren
	Troglodytes aedon	house wren
	Turdidae	**Thrushes**
	Sialia mexicana	western bluebird
	Mimidae	**Thrashers**
	Mimus polyglottos	northern mockingbird
	Toxostoma redivivum	California thrasher
	Sturnidae	**Starlings**
*	*Sturnus vulgaris*	European starling
	Parulidae	**Wood Warblers**
	Cardellina pusilla	Wilson’s warbler
	Geothlypis trichas	common yellowthroat
	Oreothlypis celata	orange-crowned warbler
	Setophaga coronata	yellow-rumped warbler
	Setophaga nigrescens	black-throated gray warbler
	Setophaga petechia	yellow warbler
	Setophaga townsendi	Townsend’s warbler
	Emberizidae	**Emberizine Sparrows and Allies**
	Melospiza lincolnii	Lincoln’s sparrow
	Melospiza melodia	song sparrow
	Melozone crissalis	California towhee
	Pipilo maculatus	spotted towhee
	Spizella breweri	Brewer’s sparrow
	Zonotrichia leucophrys	white-crowned sparrow
	Cardinalidae	**Buntings, Grosbeaks, and Tanagers**
	Passerina caerulea	blue grosbeak
	Pheucticus melanocephalus	black-headed grosbeak
	Piranga ludoviciana	western tanager
	Icteridae	**Blackbirds**
	Agelaius phoeniceus	red-winged blackbird
	Icterus bullockii	Bullock's oriole
	Icterus cucullatus	hooded oriole
*	*Molothrus ater*	brown-headed cowbird
	Fringillidae	**Finches**
	Haemorhous mexicanus	house finch
	Spinus lawrencei	Lawrence's goldfinch
	Spinus pinus	pine siskin
	Spinus psaltria	lesser goldfinch

BIRDS

Scientific Name	Common Name
Passeridae	**Old World Sparrows**
* *Passer domesticus*	house sparrow

MAMMALS

Scientific Name	Common Name
Felidae	**Cats**
* *Felis catus*	feral cat
Geomyidae	**Pocket Gophers**
Thomomys bottae	Botta's pocket gopher
Leporidae	**Hares and Rabbits**
Sylvilagus audubonii	Audubon’s cottontail
Sciuridae	**Squirrels and Chipmunks**
Otospermophilus beecheyi	California ground squirrel

Attachment E
Special-Status Plant Species

ESA

ATTACHMENT E

Special-Status Plant Species

Scientific Name	Common Name	Flowering Period	Federal Sensitivity Status	State	Local (CRPR/ Other)	Preferred Habitat/Known Elevation and Distribution	Presence/Potential to Occur Within Biological Study Area
BRYOPHYTES (Mosses)							
Pottiaceae	**Moss Family**						
Triquetrella californica	coastal triquetrella	N/A	None	None	1B.2	Coastal bluff scrub, coastal scrub; found within 10 miles of the ocean. In San Diego the only collection is near San Vicente Reservoir	**Not Expected**. Coastal species. No suitable habitat on-site.
ASPLENIACEAE	**Spleenwort Family**						
Asplenium vespertinum	western spleenwort	N/A	None	S3.2	4.2 County List D	Rocky, chaparral, cismontane woodland, coastal scrub. 180-1000 meters.	**Not Expected**. Montane species. No suitable habitat on-site.
GYMNOSPERMS							
Cupressaceae	**Cypress Family**						
Hesperocyparis forbesii	Tecate cypress	N/A	None	None	1B.1 County List A	Clay, gabbroic or metavolcanic soils associated with closed-cone coniferous forest and chaparral. 80-1500 meters.	**Not Expected**. No suitable habitat on-site; closest known population is approximately 20 miles to the southeast.
Hesperocyparis stephensonii	Cuyamaca cypress	N/A	None	None	1B.1 County List A	Chaparral, closed-cone coniferous forest, riparian forest, ultramafic. 370-2290 meters	**Not Expected**. Montane species. No suitable habitat on-site; closest known population is approximately 20 miles to the southeast.

Observed = observed; Not Expected = species not expected to occur on-site due to the lack of suitable habitat; Potential = species has the potential to occur on-site.

Scientific Name	Common Name	Flowering Period	Federal Sensitivity Status	State	Local (CRPR/ Other)	Preferred Habitat/Known Elevation and Distribution	Presence/Potential to Occur Within Biological Study Area
ANGIOSPERMS (DICOTYLEDONS)							
Apiaceae	**Carrot Family**						
Eryngium aristulatum var. *parishii*	San Diego button-celery	Apr.-Jun.	FE	CE	1B.1 County List A	Coastal scrub, valley and foothill grassland, vernal pools; grows within San Diego mesa hardpan vernal pools, clay pan vernal pools, and southern interior basalt flow vernal pools. 20-620 meters.	**Potential (Low)**. Species not detected in previous surveys nor was it detected in 2021 during surveys (April, May and June 2021). This species is not known to occur in vernal pools in the Ramona complexes.
Asteraceae	**Sunflower Family**						
Artemisia palmeri	San Diego sagewort	Feb. (May-Sep.)	None	None	4.2 County List D	Chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland. Sandy, mesic. 0-410 meters	**Potential (Low).** Species not detected in previous surveys nor was it detected in 2021 during surveys. Marginally suitable habitat and soils present on-site.
Baccharis vanessae	Encinitas baccharis	Aug.-Dec.	FT	SE	1B.1 DNCMSCP County List A	Chaparral 85-910 meters	**Not Expected**. No suitable habitat on-site. The project location is not within known range of this species.
Centromadia parryi ssp. *australis*	southern tarplant	May-Nov.	None	None	1B.1 County List A	Margins of marshes and swamps, valley and foothill grassland (vernally mesic), and vernal pools. 0-425 meters	**Observed**. Species observed within the study area during focused surveys in 2021 and previous 2018 surveys (CalTrans 2018).
Centromadia pungens ssp. *laevis*	smooth tarplant	Apr.-Sep.	None	None	1B.1 County List A	Valley and foothill grasslands with poorly drained alkaline soil conditions at low elevations. 0-640 meters.	**Potential (Low)**. Species not detected in previous surveys nor was it detected in 2021 during surveys. Marginally suitable habitat and soils present on-site but species is not known from the vicinity.
Deinandra floribunda	Tecate tarplant	Aug-Oct	None	None	1B.2 County List A	Chaparral, coastal scrub 510-1260 meters	**Not Expected**. Very low potential, and not expected to occur on-site due to lack of suitable substrate.

Observed = observed; Not Expected = species not expected to occur on-site due to the lack of suitable habitat; Potential = species has the potential to occur on-site.

Scientific Name	Common Name	Flowering Period	Federal Sensitivity Status	State	Local (CRPR/ Other)	Preferred Habitat/Known Elevation and Distribution	Presence/Potential to Occur Within Biological Study Area
Deinandra paniculata	paniculate tarplant	Apr.-Nov.	None	None	4.2 County List D	Typically found associated with vernally mesic areas; coastal scrub; valley and foothill grassland; vernal pools. Found within the Ramona Grasslands. 25-940 meters.	**Potential (Low)**. Species not detected in previous surveys nor was it detected in 2021 during surveys. Marginally suitable habitat and soils present on-site.
Ericameria palmeri var. *palmeri*	Palmer's goldenbush	Sep.-Nov.	None	None	1B.1 County List B	Chaparral, coastal scrub 0-280 meters	**Not Expected**. The limited suitable coastal scrub habitat on-site is disturbed and isolated; thus, this species has only a very low potential to occur and was not observed during 2021 surveys.
Grindelia hallii	San Diego gumplant	Jul.-Oct.	None	None	1B.2 County List A	Chaparral, lower montane conifer forest, meadow and seep, valley and foothill grassland 1580-1990 meters	**Not Expected**. Marginally suitable habitat and soils present on-site; however, the study area is outside of the elevation range of this species.
Heterotheca sessiliflora ssp. *sessiliflora*	beach goldenaster	Mar-Dec	None	None	1B.1	Chaparral (coastal), coastal dunes, coastal scrub 0-75 meters	**Potential (Low)**. Species not detected in previous surveys nor was it detected in 2021 during surveys. Marginally suitable habitat and soils present on-site.
Holocarpha virgata ssp. *elongata*	graceful tarplant	May-Nov.	None	None	4.2 County List D	Chaparral; cismontane woodland; coastal scrub; valley and foothill woodland. 60 - 1100 meters.	**Not Expected**. No suitable habitat and soils present on-site.
Isocoma menziesii var. *decumbens*	decumbent goldenbush	Apr.-Nov.	None	None	1B.2 County List A	Chaparral and coastal scrub; sandy, often in disturbed areas. 10-135 meters.	**Potential (Low)**. Species not detected in previous surveys nor was it detected in 2021 during surveys. Marginally suitable habitat and soils present on-site.
Iva hayesiana	San Diego marsh-elder	Apr-Oct	None	None	2B.2 County List B	Marshes and swamps, playas 0-200 meters	**Not Expected**. Marginally suitable habitat.

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Scientific Name	Common Name	Flowering Period	Federal Sensitivity Status	State	Local (CRPR/ Other)	Preferred Habitat/Known Elevation and Distribution	Presence/Potential to Occur Within Biological Study Area
Lessingia glandulifera var. *tomentosa*	Warner Springs lessingia	Aug.-Nov.	None	None	1B.3 County List A	Chaparral. Known from Warner Springs 830-1080 meters	**Not Expected**. No suitable habitat on-site.
Microseris douglasii ssp. *platycarpha*	small-flowered microseris	Mar-May	None	None	4.2 County List D	Clay soils, grassland, often near vernal pools or serpentine outcrops <1100 meters	**Potential (Low)**. Marginable suitable habitat. Site heavily disturbed.
Packera ganderi	Gander's ragwort	Apr.-Jun.	None	CR	1B.2 County List A	Chaparral, cismontane, woodland, coastal scrub, riparian; sandy, gravelly. 400 - 1200 meters.	**Not Expected**. Marginally suitable habitat and soils present on-site. However, site is heavily disturbed and unlikely to support this species.
Symphyotrichum defoliatum	San Bernardino aster	Jul.-Nov.	None	None	1B.2	Near ditches, springs, and streams; cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic). Between 2 and 2040 meters.	**Not Expected**. No suitable habitat or soils present on-site. Site is heavily disturbed and unlikely to support this species.
Bahiopsis laciniata	San Diego County viguiera	Feb.-Jun.	None	None	4.2 County List D	Chaparral, coastal scrub; grows along slopes and ridgelines. 60-750 meters.	**Potential (Low)**. Species not detected in previous surveys nor was it detected in 2021 during surveys. Marginally suitable habitat and soils present on-site.
Boraginaceae	**Borage Family**						
Harpagonella palmeri	Palmer's grapplinghook	Mar.-May	None	None	4.2 County List D	Variety of southern California plant communities including sage scrub; clay soils. 20 - 955 meters	**Not Expected**. No suitable soils present.
Brassicaceae	**Cabbage Family**						
Caulanthus simulans	Payton's jewel-flower	Feb.-Jun.	None	None	4.2 County List D	Chaparral, coastal scrub; sandy, granitic. 90 - 2200 meters	**Not Expected**. No suitable habitat or soils present.

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Scientific Name	Common Name	Flowering Period	Federal Sensitivity Status	State	Local (CRPR/ Other)	Preferred Habitat/Known Elevation and Distribution	Presence/Potential to Occur Within Biological Study Area
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	Jan.-Jul.	None	None	4.3 County List A	Chaparral and coastal scrub. 1 - 885 meters	**Potential (Low)**. Species not detected in previous surveys nor was it detected in 2021 during surveys. Marginally suitable habitat and soils present on-site.
Streptanthus campestris	southern jewel-flower	(Apr.), May-Jul.	None	None	1B.2 County List A	Chaparral, lower montane coniferous forest, pinyon and juniper woodland/rocky 900 - 2300 meters.	**Not Expected**. No suitable habitat or soils present.
Cactaceae	**Cactus Family**						
Ferocactus viridescens	San Diego barrel cactus	May-Jun.	None	None	2.1 County List B	Chaparral, coastal scrub, valley and foothill grassland 5-30 meters	**Not Expected**. No suitable habitat on-site.
Campanulaceae	**Bellflower Family**						
Downingia concolor var. *brevior*	Cuyamaca Lake downingia	May-Jul	None	CE	1B.1 County List A	Meadows and seeps, vernal-pools. 1400-1500 meters	**Not Expected**. No suitable habitat onsite.
Chenopodiaceae	**Goosefoot Family**						
Atriplex coulteri	Coulter's saltbush	Mar.-Oct.	None	None	1B.2 DNCMSCP County List A	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland; alkaline or clay soils. 3 - 460 meters	**Potential (Low)**. Species not detected in previous surveys nor was it detected in 2021 during surveys. Marginally suitable habitat and soils present on-site.
Atriplex parishii	Parish's brittlescale	Jun.-Oct.	None	None	1B.1 DNCMSCP County List A	Shadscale scrub, alkali sinks, freshwater wetlands, wetland-riparian, playas, vernal pools. 25-1900 meters	**Potential (Low)**. Species not detected in previous surveys nor was it detected in 2021 during surveys. Marginally suitable habitat and soils present on-site.
Convolvulaceae	**Morning-Glory Family**						
Convolvulus simulans	small-flowered morning-glory	Mar.-Jul.	None	None	4.2 County List D	Coastal sage scrub, valley and foothill grassland; clay soils, serpentine seeps, openings in chaparral. 0 - 305 meters	**Not Expected**. Marginally suitable habitat and soils present on-site. However, site is heavily disturbed and unlikely to support this species.

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Scientific Name	Common Name	Flowering Period	Federal Sensitivity Status	State	Local (CRPR/ Other)	Preferred Habitat/Known Elevation and Distribution	Presence/Potential to Occur Within Biological Study Area
Dichondra occidentalis	western dichondra	Jan.-Jul.	None	None	4.2 County List D	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. 50 - 500 meters	**Not Expected**. No suitable habitat present on-site. Site is heavily disturbed and unlikely to support this species.
Crassulaceae	**Stonecrop Family**						
Dudleya variegata	variegated dudleya	Apr.-Jun.	None	None	1B.2 County List A	Chaparral, cismontanewoodland, coastal scrub, valley and foothill grassland 55-240 meters	**Not Expected**. No suitable habitat present on-site.
Ericaceae	**Heather Family**						
Comarostaphylis diversifolia ssp. *diversifolia*	summer holly	Apr.-Jun.	None	None	1B.2 County List A	Chaparral, cismontane woodland, mixed chaparral; sometimes found in burned areas. 30-790 meters	**Not Expected**. No suitable habitat present on-site.
Euphorbiaceae	**Spurge Family**						
Tetracoccus dioicus	Parry's tetracoccus	Apr.-May	None	None	1B.2 County List A	Chaparral, coastal scrub. 165 - 1000 meters	**Not Expected**. No suitable habitat present on-site. The study area is outside of the range of the species.
Fabaceae	**Legume Family**						
Astragalus deanei	Dean's milk-vetch	Mar.-May.	None	None	1B.1 County List A	Chaparral, coastal scrub, riparian forest 120-600 meters	**Not Expected**. The study area is outside of the rangeof the species.
Astragalus insularis var. hardwoodii	Harwood's milk-vetch	Jan.-May	None	None	2B.2 County List B	Desert dunes, Mojavean desert scrub; sandy or gravelly. 85-690 meters	**Not Expected**. The study area is outside of the range of the species.
Astragalus oocarpus	San Diego milk-vetch	May-Aug.	None	None	1B.2 County List A	Chaparral, cismontane woodland, meadowand seep 490-1780 meters	**Not Expected**. No suitable habitat on-site.

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Scientific Name	Common Name	Flowering Period	Federal Sensitivity Status	State	Local (CRPR/ Other)	Preferred Habitat/Known Elevation and Distribution	Presence/Potential to Occur Within Biological Study Area
Thermopsis californica var. *semota*	velvety falselupine	Apr.-Jun.	None	None	1B.2 County List A	Cismontane woodland,lower montane coniferous forest, meadow and seep, valley and foothill grassland, wetland 730-1680 meters	**Not Expected**. No suitable habitat on-site and the study area is outside of the elevation range of this species.
Fagaceae	**Oak Family**						
Quercus engelmannii	Engelmann oak	Mar.-Jun.	None	None	4.2 County List D	Cismontane woodland, chaparral, riparian woodland, valley and foothill grassland. 50-1300 meters.	**Not Expected**. Marginally suitable habitat on-site. Site is heavily disturbed and unlikely to support this species, and this species was not detected during 2021 surveys.
Grossulariaceae	**Gooseberry Family**						
Ribes canthariforme	Moreno currant	Feb.-Apr.	None	None	1B.3 County List A	Chaparral 100-1060 meters	**Not Expected**. No suitable habitat on-site.
Hydrophyllaceae	**Waterleaf Family**						
Nama stenocarpa	mud nama	Jan.-Jul.	None	None	2.B2 County List B	Marches and swamps (lake margins, riverbanks). 5-500 meters.	**Not Expected**. No suitable habitat on-site. Site is heavily disturbed and unlikely to support this species.
Lamiaceae	**Mint Family**						
Lepechinia cardiophylla	heart-leaved pitcher sage	Apr.-Jul.	None	None	1B.2 County List A	Closed-cone coniferous forest, chaparral, cismontane woodland. 520-1370 meters.	**Not Expected**. No suitable habitat on-site.
Acanthomintha ilicifolia	San Diego thorn-mint	Apr-Jun.	FT	CE	1B.1 DNCMSCP County List A	Vernal pools, grassy areas, chaparral and CSS, clay and gabbro soils. 10-890 meters	**Not Expected**. No suitable soils or habitat on-site.
Monardella viminea	willowy monardella	Jun.-Aug.	FE	SE	1B.1 County List A	Open cobbly streambenches 55-890 meters	**Not Expected**. No suitable habitat on-site. The study area is outside the range of this species.

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Scientific Name	Common Name	Flowering Period	Federal Sensitivity Status	State	Local (CRPR/ Other)	Preferred Habitat/Known Elevation and Distribution	Presence/Potential to Occur Within Biological Study Area
Monardella hypoleuca ssp. *lanata*	felt-leaved monardella	Jun.-Aug.	None	None	1B.2 County List A	Chaparral, cismontane woodland; typically found as an understory species within sandy soils. 300-1575 meters.	**Not Expected**. No suitable habitat on-site.
Clinopodium chandleri	San Miguel savory	Mar.-Jul.	None	None	1B.2 County List A	Chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. Grows within rocky, gabbroic, or metavolcanic soils. 120-1075 meters	**Not Expected**. No suitable habitat on-site.
Scutellaria bolanderi ssp. *austromontana*	southern mountains skullcap	Jun.-Aug.	None	None	1B.2 County List A	Chaparral, cismontane woodland, lower montane coniferous forest; typically grows in gravelly soil on moist embankments of montane creeks. 425-2000 meters.	**Not Expected**. No suitable habitat on-site.
Onagraceae	**Evening-primrose Family**						
Camissoniopsis lewisii	Lewis' evening-primrose	Mar.-Jun.	None	None	3 County List C	Coastal bluff scrub; cistomane woodland, coastal dunes, coastal scrub; valley and foothill grassland; sandy or clay soils. 0-300 meters.	**Potential (Low)**. Species not detected in previous surveys nor was it detected in 2021 during surveys. Marginally suitable habitat and soils present on-site.
Clarkia delicata	delicate clarkia	Apr.-May	None	None	1B.1 County List A	Chaparral, cismontane woodland 160-960 meters	**Not Expected**. No suitable habitat on-site.
Plantaginaceae	**Plantain Family**						
Stemodia durantifolia	purple stemodia	Year-round	None	None	2.1 County List B	Sonoran desert scrub 0-480 meters	**Not Expected**. No suitable habitat on-site.
Polemoniaceae	**Phlox Family**						
Navarretia fossalis	spreading navarretia	Apr.-Jun.	None	None	1B.1 County List A	Coastal sage scrub, wetland-riparian; occurs almost always under natural conditions in wetlands. 30 - 655 meters	**Not Expected**. Marginally suitable habitat and soils present on-site. However, site is heavily disturbed and unlikely to support this species.

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Scientific Name	Common Name	Flowering Period	Federal Sensitivity Status	State	Local (CRPR/ Other)	Preferred Habitat/Known Elevation and Distribution	Presence/Potential to Occur Within Biological Study Area
Navarretia peninsularis	Baja navarretia	Jun.-Aug.	None	None	1B.2 County List A	Chaparral, lower montane coniferousforest, 1710-2400 meters	**Not Expected**. Montane species. No suitable habitat on-site.
Polygalaceae	**Milkwort Family**						
Polygala cornuta var. *fishiae*	Fish's milkwort	May-Aug.	None	None	4.3 County List D	Cismontane woodland, riparian woodland, chaparral; typically grows among oaks along ridges and scree slopes and is often found along streams. 100-1000 meters.	**Not Expected**. No suitable habitat on-site.
Polygonaceae	**Buckwheat Family**						
Chorizanthe polygonoides var. *longispina*	long-spined spineflower	Apr.-Jul.	None	None	1B.2 County List A	Primarily associated with clay soils but also found on sandy or gravelly soils within open areas of chaparral, sage scrub, or needlegrass grassland. 30 - 1530 meters	**Not Expected**. No suitable habitat on-site. Site is heavily disturbed and unlikely to support this species.
Ranunculaceae	**Buttercup Family**						
Delphinium hesperium ssp. *cuyamacae*	Cuyamaca larkspur	Jun.-Jul	None	SR	1B.2 County List A	Lower montane coniferous forest, meadow and seep, wetlands 1210-1580 meters	**Not Expected**. No suitable habitat on-site and the study area is outside of the elevation range of this species.
Myosurus minimus ssp. *apus*	little mousetail	Mar.-Jun.	None	None	3.1 County List C	Associated with vernal pools and inundated grassland habitats. 20 - 640 meters	**Potential (Low)**. Species not detected in previous surveys nor was it detected in 2021 during surveys. Marginally suitable habitat and soils present on-site.
Rosaceae	**Rose Family**						
Horkelia truncata	Ramona horkelia	May-Jun.	None	None	1B.3 County List A	clay, gabbroic, Chaparral, Cismontane woodland. 400 - 1300 meters	**Not Expected**. No suitable habitat on-site.
Rhamnaceae	**Buckthorn Family**						
Adolphia californica	California adolphia	Dec.-May	None	None	2B.1 County List B	Chaparral, Coastal scrub, Valley and foothill grassland. Clay. 5-340 meters	**Not Expected**. No suitable habitat on-site.

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Scientific Name	Common Name	Flowering Period	Federal Sensitivity Status	State	Local (CRPR/ Other)	Preferred Habitat/Known Elevation and Distribution	Presence/Potential to Occur Within Biological Study Area
Ceanothus cyaneus	Lakeside ceanothus	Apr.-Jun.	None	None	1B.2 County List A	Chaparral, closed-cone pine forest. 235 - 755 meters	**Not Expected**. No suitable habitat on-site. Outside the range of this species.
Ceanothus otayaensis	Otay Mountain ceanothus	Jan.-Apr.	None	None	1B.2	Chaparral (metavolcanic or gabbroic) 180-1090 meters	**Not Expected**. No suitable habitat on-site. The study area is outside the range of this species.
ANGIOSPERMS (MONOCOTYLEDONS)							
Alliaceae	**Onion Family**						
Allium marvinii	Yucaipa onion	Mar.-Apr.	None	None	1B.2	Clay soils in chaparral,coastal scrub, valley and foothill grassland 190-1040 meters	**Not Expected**. No suitable habitat on-site. Site is heavily disturbed and unlikely to support this species.
Liliaceae	**Lily Family**						
Calochortus dunnii	Dunn's mariposa-lily	Jun.	None	SR	1B.2 County List A	Chaparral, closed-cone coniferous forest, ultramafic 260-1180 meters	**Not Expected**. No suitable habitat on-site. Site is heavily disturbed and unlikely to support this species.
Calochortus palmeri var. *munzii*	San Jacinto mariposa-lily	Apr.-Jul.	None	None	1B.2	Chaparral, lower montane coniferous forests, meadow and seeps, grasslands 660-1430 meters	**Potential (Low)**. Marginal suitable habitat on-site. Site is heavily disturbed.
Lilium parryi	lemon lily	Jul.-Aug.	None	None	1B.2 County List A	Red fir forest, yellow pine forest, wetland-riparian, riparian meadows; usually occurs in wetlands, but occasionally found in non-wetlands. 1220 - 2745 meters.	**Not Expected**. No suitable habitat on-site and the study area is outside of the elevation range of this species.
Limnanthaceae (Liliaceae)	**Meadowfoam Family**						
Limnanthes alba ssp. *parishii*	Parish's meadowfoam	Apr.-Jun.	None	SE	1B.2	Yellow pine forests, freshwater wetlands, wetland-riparian; meadows, vernal pools. 600 - 2000 meters.	**Not Expected**. No suitable habitat on-site. Site is heavily disturbed and unlikely to support this species.

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Scientific Name	Common Name	Flowering Period	Federal Sensitivity Status	State	Local (CRPR/ Other)	Preferred Habitat/Known Elevation and Distribution	Presence/Potential to Occur Within Biological Study Area
Poaceae	**True Grass Family**						
Hordeum intercedens	vernal barley	Mar.-Jun.	None	None	3.2 County List C	Coastal dunes, coastal scrub, valley and foothill grassland (saline flats and depressions), vernal pools. 5-1000 meters.	**Potential (Low)**. Species not detected in previous surveys nor was it detected in 2021 during surveys. Marginally suitable habitat and soils present on-site.
Sphenopholis obtusata	prairie wedge grass	Apr.-Jul.	None	None	2B.2	Cismontane woodland, Meadows and seeps/mesic 300 - 2000 meters.	**Not Expected**. No suitable habitat on-site. Site is heavily disturbed and unlikely to support this species.
Ruscaceae	**Ruscus Family**						
Nolina cismontana	chaparral nolina	May-Jul.	None	None	1B.2 County List A	Xeric Diegan sage scrubs, open chaparral, coastal scrub; typically grows within sandstone and shale substrates and occasionally within gabbro. 140-1275 meters.	**Not Expected**. No suitable habitat on-site.
Themidaceae	**Butcher's-Broom Family**						
Bloomeria [Muilla] clevelandii	San Diego goldenstar	May	None	None	1B.1 SDC Group A County List A	Chaparral, coastal scrub, valley and foothill grassland, vernal pool, wetland 30-1740 meters	**Potential (Low)**. Species not detected in previous surveys nor was it detected in 2021 during surveys. Marginally suitable habitat and soils present on-site. Site is heavily disturbed and unlikely to support this species.
Brodiaea filifolia	thread-leaved brodiaea	Mar.-Jun.	FT	CE	1B.1 DNCMSCP County List A	Clay soils in coastal scrub, valley and foothill grassland, cismontane woodland, and vernal pools. 25 - 1120 meters.	**Potential (Low)**. Species not detected in previous surveys nor was it detected in 2021 during surveys. Marginally suitable habitat and soils present on-site. Site is heavily disturbed and unlikely to support this species.

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Scientific Name	Common Name	Flowering Period	Federal Sensitivity Status	State	Local (CRPR/ Other)	Preferred Habitat/Known Elevation and Distribution	Presence/Potential to Occur Within Biological Study Area
Brodiaea orcuttii	Orcutt's brodiaea	May-Jul.	None	None	1B.1 County List A	Sage scrub, valley and foothill grassland, cismontane woodland; vernal pools (clay soils). 25 - 1120 meters	**Potential (Low)**. Species not detected in previous surveys nor was it detected in 2021 during surveys. Marginally suitable habitat and soils present on-site. Site is heavily disturbed and unlikely to support this species.

Key to Species Listing Status Codes

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

CRPR *California Rare Plant Rank*

DNCMSCP *County of San Diego 2009 Draft North County Multiple Species Conservation Plan (DNCMSCP)*

County List *County of San Diego Sensitive Plant List (County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements Biological Resources, 2010)*
- *List A: Plants rare, threatened or endangered in California and elsewhere*
- *List B: Plants rare, threatened or endangered in California but more common elsewhere*
- *List C: Plants which may be rare, but need more information to determine their true rarity status*
- *List D: Plants limited distribution and are uncommon, but not presently rare or endangered*

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San Diego Natural History Museum. 2019. San Diego Plant Atlas. Available online at: http://sdplantatlas.org/publicsearch.aspx. Accessed on July 7, 2021.

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Attachment F
Special-Status Wildlife Species

ESA

ATTACHMENT F

Special-Status Wildlife Species

Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Preferred Habitat/Known Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
INVERTEBRATES			
Order Anostraca (fairy shrimp) ***Crustacea***			
San Diego fairy shrimp *Branchinecta sandiegoensis*	Federal: FE State: None Local: (DNCMSCP) Covered; (SDC) Group 1	Known to occur in areas of swales/earth slump basins in grassland, chaparral, and coastal sage scrub. Inhabit seasonally wet pools filled by winter/spring rains. Hatch in warm water later in the season.	**Not Expected**. Although this species is documented immediately south of the study area in 2003 in the CNDDB (CDFW 2021a), protocol surveys conducted by CalTrans in 2013 and 2018 were negative (CalTrans 2018); these surveys covered the majority of the study area, but excluded a portion of the central eastern portion of the study area. Additionally, protocol surveys conducted by Dudek in 2015-2016 were negative (Dudek 2017); these surveys encompassed the project site but not the entire 100-foot buffer. During 2021 surveys, ESA biologists investigated the areas where vernal pools were historically mapped and found the areas to be flat without noticeable basins or depressions, and hydrophytic vegetation and hydrological indicators were absent during the aquatic resources study. The area was dominated by non-native species typically found in disturbed soils and upland habitats. In addition, the open area had evidence of recent soil disturbances. Protocol wet season fairy shrimp surveys were conducted by Blackhawk Environmental in 2023 and were negative; dry season surveys are scheduled to be conducted in June 2023 once pools have completely dried and can be sampled.

Observed = observed; Not Expected = species not expected to occur on-site due to the lack of suitable habitat or results of negative focused surveys; Potential = species has the potential to occur on-site.

Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Preferred Habitat/Known Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
Riverside fairy shrimp *Streptocephalus woottoni*	Federal: FE State: None Local: (DNCMSCP) Covered; (SDC) Group 1	Endemic to western Riverside, Orange and San Diego Counties in areas of tectonic swales/earth slump basins in grassland and coastal sage scrub. Inhabit seasonally astatic pools filled by winter/spring rains greater than 12 inches in depth. Hatch in warm water later in the season. Typically observed January through March.	**Not Expected**. Protocol surveys conducted by CalTrans in 2013 and 2018 were negative (CalTrans 2018); these surveys covered the majority of the study area, but excluded a portion of the central eastern portion of the study area. Protocol surveys conducted by Dudek in 2015-2016 were negative (Dudek 2017); these surveys encompassed the project site but not the entire 100-foot buffer. During 2021 surveys, ESA biologists investigated the areas where vernal pools were historically mapped and found the areas to be flat without noticeable basins or depressions, and hydrophytic vegetation and hydrological indicators were absent during the aquatic resources study. The area was dominated by non-native species typically found in disturbed soils and upland habitats. In addition, the open area had evidence of recent soil disturbances. Protocol wet season fairy shrimp surveys were conducted by Blackhawk Environmental in 2023 and were negative; dry season surveys are scheduled to be conducted in June 2023.
Order Lepidoptera (butterflies & moths) ***Insecta***			
Quino checkerspot butterfly *Euphydryas editha quino*	Federal: FE State: None Local: (DNCMSCP) Covered, (SDC) Group 1	Sunny openings within native and non-native grasslands, coastal sage scrub, open chaparral, and other open plant community types with rocky outcroppings, cryptogrammic crusts, and presence of host plant species (*Plantago erecta*, *P. insularis*, and *Castilleja exserta*) and nectar sources. Hills and mesas near the coast.	**Not Expected**. No suitable habitat on-site.
Monarch butterfly *Danaus plexippus*	Federal: Candidate State: None Local: None	Typically reach the northern limit of the North American range in early to mid-June. Milkweeds are critical for successful development of the caterpillar into an adult butterfly. During spring and summer, the monarch spends its 2-5 week lifespan mating and nectaring on flowers.	**Potential (Low)**. Nectar sources occur within the site, which could attract individuals; however, no milkweed was detected within the site, which is critical for development of the caterpillar.

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Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Preferred Habitat/Known Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
Order Hymenoptera (ants, bees, & wasps) ***Insecta***			
Crotch bumble bee *Bombus crotchii*	Federal: None State: SCE Local: None	Open grassland and scrub habitats that support potential nectar sources such as plants within the Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, and Boraginaceae families.	**Potential (Low)**. This species occurred within the immediate vicinity of the study area in 1950, with the most recent occurrences documented in 1994 in the CNDDB (CDFW 2021a). However, this area has experienced extensive development since those observations, and due to limited and disturbed habitat on-site and in the surrounding vicinity, potential is low.
AMPHIBIANS			
Newts ***Salamandridae***			
Coast Range newt *Taricha torosa*	Federal: None State: SSC Local: (SDC) Group 2	Leave their aquatic habitat within a few weeks of breeding, and estivate terrestrially during the dry summer, residing in moist habitats under woodland debris, animal burrows, or in rock crevices. Species has been documented migrating approximately 2 miles between breeding and estivation sites.	**Potential (Low)**. Although the study area supports aquatic habitat within Santa Maria Creek, this species does not have known occurrences within the vicinity and potential is low.
Lungless Salamanders ***Plethodontidae***			
large-blotched salamander *Ensatina eschscholtzii klauberi*	Federal: None State: WL Local: (SDC) Group 1	Found in conifer and woodland associations in leaf litter, decaying logs, and shrubs in heavily forested areas.	**Not Expected**. Although woodland habitat occurs on-site, the study area does not support heavily forested areas where this species typically occurs.
Spadefoot Toads ***Scaphiopodidae***			
western spadefoot *Spea hammondii*	Federal: None State: SSC Local: (SDC) Group 2	Mixed woodland, grasslands, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Prefers washes and other sandy areas with patches of brush and rocks. Rain pools or shallow temporary pools, which do not contain bullfrogs, fish, or crayfish are necessary for breeding. Perennial plants necessary for its major food-termites.	**Observed**. Approximately three dozen western spadefoot tadpoles were detected in a pool along a dirt road outside of the southern boundary of the study area during the 2023 fairy shrimp surveys conducted by Blackhawk Environmental.

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Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Preferred Habitat/Known Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
True Toads ***Bufonidae***			
arroyo toad *Anaxyrus californicus*	Federal: FE State: SSC Local: (SDC) Group 1	Gravelly or sandy washes, stream and river banks, and arroyos where flow rates are great enough to keep silt and clay suspended. Found in desert wash, riparian scrub, riparian woodland, south coast flowing waters, and south coast standing waters. Shallow sandy pools bordered sand and gravel flood terraces are needed for breeding.	**Potential (Low)**. This species has low potential to occur. The portion of Santa Maria Creek within the study area contains dense riparian canopy and is intermittent, and thus lacks the regularly flowing or standing water during the breeding season that this species requires for development. Additionally, the upland habitat surrounding the creek is highly disturbed and supports dense non-native grasses that would not be conducive to toad movement or burrowing (CalTrans 2018). Thus, this species is not expected to occur within the study area and focused survey are not recommended.
REPTILES			
Spiny Lizards ***Phrynosomatidae***			
coast horned lizard *Phrynosoma blainvillii*	Federal: None State: SSC Local: (SDC) Group 2	Prefers sandy riparian and sage scrub habitats but also occurs in valley-foothill hardwood, conifer, pine-cypress, juniper and annual grassland habitats below 6,000 feet, open country, especially sandy areas, washes, flood plains, and windblown deposits. Requires open areas for sunning, bushes and loose soil for cover and abundant supply of harvester ants.	**Potential (Low)**. This species was historically documented in the CNDDB within the immediate vicinity in 1939 (CDFW 2021a). However, this area has experienced extensive development since those observations, and due to limited and disturbed habitat on-site and in the surrounding vicinity, potential is low.
Skinks ***Scincidae***			
Coronado skink *Plestiodon skiltonianus interparietalis*	Federal: None State: WL Local: (SDC) Group 2	Grassland, chaparral, pinon-juniper and juniper sage woodland, pine-oak and pine forests in Coast Ranges of Southern California. Prefers early successional stages or open areas. Found in rocky areas close to streams and on dry hillsides with leaf litter and sandy substrates.	**Potential (Low)**. This species was documented in the CNDDB approximately 2 miles south of the study area in 1995 (CDFW 2021a). However, this area has experienced extensive development since those observations, and due to limited and disturbed habitat on-site and in the surrounding vicinity, potential is low.

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Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Preferred Habitat/Known Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
Whiptails & relatives ***Teiidae***			
Belding's orange-throated whiptail *Aspidoscelis hyperythra beldingi*	Federal: None State: WL Local: (SDC) Group 2	Species requires intact habitat within chaparral, cismontane woodland, and coastal scrub plant communities. Prefers washes and other sandy areas with patches of brush and rocks. Perennial plants necessary for its major food-termites.	**Observed**. One individual of this species was detected during the 2018 surveys conducted by CalTrans (2018).
coastal whiptail *Aspidoscelis tigris stejnegeri*	Federal: None State: SSC Local: (SDC) Group 2	Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland and riparian areas. Ground may be firm soil, sandy, or rocky.	**Potential (Moderate)**. This species was documented in the CNDDB within the immediate vicinity in 1992 (CDFW 2021a).
Legless Lizards ***Anniellidae***			
southern California legless lizard *Anniella stebbinsi*	Federal: None State: SSC Local: (SDC) Group 2	Occurs in moist warm loose soil with plant cover. Moisture is essential. Occurs in sparsely vegetated areas of beach/coastal dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. Leaf litter under trees and bushes in sunny areas and dunes stabilized with bush lupine and mock heather often indicate suitable habitat. Often can be found under surface objects such as rocks, boards, driftwood, and logs. Can also be found by gently raking leaf litter under bushes and trees. Sometimes found in suburban gardens in Southern California.	**Potential (Low)**. This species historically occurred in the CNDDB within the immediate vicinity of the study area in 1952 (CDFW 2021a). However, this area has experienced extensive development since those observations, and due to limited and disturbed habitat on-site and in the surrounding vicinity, potential is low.
Egg-Laying Snakes ***Colubridae***			
California glossy snake *Arizona elegans occidentalis*	Federal: None State: SSC Local: None	Inhabits arid scrub, rocky washes, and grasslands, and chaparral habitats. Appears to prefer microhabitats of open areas with friable soils for burrowing.	**Potential (Low)**. This species was historically documented in the CNDDB within the immediate vicinity of the study area in 1940 (CDFW 2021a). However, this area has experienced extensive development since those observations, and due to limited and disturbed habitat on-site and in the surrounding vicinity, potential is low.

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Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Preferred Habitat/Known Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
San Diego ringneck snake *Diadophis punctatus similis*	Federal: None State: None Local: (SDC) Group 2	Prefers moist habitats, including wet meadows, rocky hillsides, gardens, farmland, grassland, chaparral, mixed coniferous forests, woodlands.	**Potential (Low)**. Although the study area supports intermittent aquatic habitat within Santa Maria Creek, this species does not have known occurrences within the vicinity and potential is low.
coast patch-nosed snake *Salvadora hexalepis virgultea*	Federal: None State: SSC Local: (SDC) Group 2	Known to inhabit semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains with sandy soils and leaf litter.	**Not Expected**. Although the study area supports limited coastal scrub habitat on-site, the study area and surrounding vicinity does not support extensive habitat where this species typically occurs.
Live-Bearing Snakes ***Natricidae***			
two-striped garter snake *Thamnophis hammondii*	Federal: None State: SSC Local: (SDC) Group 1	Habitat includes marsh and swamp, riparian scrub, riparian woodland, and wetland. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	**Not Expected**. Although the study area supports aquatic habitat within Santa Maria Creek, this stream is intermittent and does not support permanent fresh water habitat required by this species.
Vipers ***Viperiidae***			
red-diamond rattlesnake *Crotalus ruber*	Federal: None State: SSC Local: (SDC) Group 2	Known to occur in chaparral, Mojavean desert scrub, and Sonoran desert scrub communities. Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks, or surface cover objects.	**Potential (Low)**. Although the study area supports limited habitat required by this species, this species was documented 1 mile northwest of the study area in 1998 in the CNDDB (CDFW 2021a).
BIRDS			
Cormorants ***Phalacrocoracidae***			
double-crested cormorant *Phalacrocorax auritus*	Federal: None State: WL Local: (SDC) Group 2	Colonial waterbirds that seek aquatic bodies large enough to support their fish diet, but can nest in clusters or trees near smaller lagoons or ponds.	**Observed**. This species was observed flying over the study area during 2021 surveys.
New World Vultures ***Cathartidae***			
turkey vulture *Cathartes aura*	Federal: None State: None Local: (SDC) Group 1	Highly migratory species that forages over a wide ranges of habitats as long as carrion is present. Nests in secluded rocky outcrops away from human activity.	**Observed**. This species was observed flying over the study area during 2021 surveys.

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Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Preferred Habitat/Known Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
Hawks, Kites, Harriers, & Eagles ***Accipitridae***			
Cooper's hawk *Accipiter cooperii*	Federal: None State: WL Local: (SDC) Group 1	Inhabits cismontane woodland, riparian forest, riparian woodland, upper montane coniferous forest, or other forest habitats near water. Nests and forages near open water or in riparian vegetation.	**Observed**. This species was observed within the study area during 2021 surveys.
red-shouldered hawk *Buteo lineatus*	Federal: None State: None Local: (SDC) Group 1	Prefers mature lowland forests with open water and clearings nearby. Inhabits oak, riparian, and eucalyptus woodland. Nests in a variety of trees including oaks, eucalyptus, palms, and peppertrees.	**Observed**. This species was observed within the study area during 2021 surveys.
Swainson's hawk *Buteo swainsoni*	Federal: BCC State: ST Local: (SDC) Group 1	Found in Great Basin grassland, riparian forest, riparian woodland, valley and foothill grassland. Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	**Potential (Low)**. This species was historically documented in the CNDDB within the immediate vicinity of the study area in 1888 (CDFW 2021a). This species is currently only known to nest in the Central Valley of California. As this area has experienced extensive development since those observations, and due to limited and disturbed habitat on-site and in the surrounding vicinity, potential for this species to forage on-site is low.
white-tailed kite *Elanus leucurus*	Federal: None State: FP Local: (SDC) Group 1	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes nest to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	**Observed**. This species was observed flying over the study area during 2021 surveys.
Falcons ***Falconidae***			
prairie falcon *Falco mexicanus*	Federal: BCC State: WL Local: (SDC) Group 1	Inhabits dry, open terrain, either level or hilly such as grassland, rangeland, agriculture, desert scrub, and alpine meadows. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	**Potential (Low)**. The study area does not supports nesting habitat, and due to limited and disturbed habitat on-site and in the surrounding vicinity, potential for this species to forage on-site is low.

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Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Preferred Habitat/Known Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
True Owls ***Strigidae***			
burrowing owl *Athene cunicularia*	Federal: BCC State: SSC Local: (DNCMSCP) Covered; (SDC) Group 1	Inhabits coastal prairie, coastal scrub, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, annual and perennial grasslands, bare ground, and disturbed habitats characterized by low-growing vegetation. A subterranean nester dependent upon burrowing mammals, particularly the California ground squirrel.	**Not Expected**. This species was not detected during 2021 focused surveys.
Tyrant Flycatchers ***Tyrannidae***			
southwestern willow flycatcher *Empidonax traillii extimus*	Federal: FE State: SE Local: (SDC) Group 1	For nesting, species requires dense riparian habitats (cottonwood/willow and tamarisk vegetation) with microclimatic conditions dictated by the local surroundings. Saturated soils, standing water, or nearby streams, pools, or cienegas are a component of nesting habitat that also influences the microclimate and density vegetation component. Habitat not suitable for nesting may be used for migration and foraging. Recurrent flooding and a natural hydrograph are important to withstand invading exotic species (tamarisk).	**Not Expected**. This species was not incidentally detected during 2021 surveys, nor was it observed during 2012 or 2018 survey conducted by CalTrans (2018).
vermilion flycatcher *Pyrocephalus rubinus flammeus*	Federal: None State: SSC Local: (SDC) Group 1	Inhabits riparian areas and scrub in the southwestern USA.	**Potential (Moderate)**. This species was documented 1.7 mile northwest of the study area in 2017 in the CNDDB (CDFW 2021a).
Vireos ***Vireonidae***			
least Bell's vireo *Vireo bellii pusillus*	Federal: FE State: SE, SSC Local: (SDC) Group 1	Known to occur in riparian forest, scrub, and woodland habitats. Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2,000 feet. Highly territorial and nests primarily in willow, mule fat, or mesquite habitats.	**Observed**. This species was observed within the study area during 2021 surveys and 2018 survey conducted by CalTrans (2018).

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Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Preferred Habitat/Known Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
Wrens ***Troglodytidae***			
coastal cactus wren *Campylorhynchus brunneicapillus sandiegensis*	Federal: None State: SSC Local: (DNCMSCP) Covered; (SDC) Group 1	Known to occur in coastal scrub habitats. Nest almost exclusively in prickly pear (*Opuntia littoralis* and *O. oricola*) and coastal cholla (*O. prolifera*).	**Not Expected**. The study area does not supports cactus scrub habitat and this species is not expected to occur on-site.
Gnatcatchers ***Polioptilidae***			
coastal California gnatcatcher *Polioptila californica californica*	Federal: FT State: SSC Local: (SDC) Group 1	Species is an obligate, permanent resident of coastal sage scrub habitats dominated by California sagebrush and flat-topped buckwheat, mainly on cismontane slopes below 1,500 feet in elevation. Low coastal sage scrub in arid washes, on mesas and slopes.	**Not Expected**. The study area supports only a limited and isolated patch of coastal sage scrub habitat, and due to limited and disturbed habitat on-site and in the surrounding vicinity, this species is not expected to occur on-site.
Thrushes ***Turdidae***			
western bluebird *Sialia mexicana*	Federal: None State: None Local: (SDC) Group 2	Inhabits oak, riparian, and conifer woodlands but can also occupy urbanized areas with mature trees and wide lawns.	**Observed**. This species was observed within the study area during 2021 surveys.
Sparrows ***Passerellidae***			
southern California rufous-crowned sparrow *Aimophila ruficeps canescens*	Federal: None State: WL Local: (SDC) Group 1	Known to frequent relatively steep, often rocky hillsides with grass and forb species. Resident in southern California coastal sage scrub and mixed chaparral habitats.	**Not Expected**. The study area does not contain steep rocky hillsides and supports only a limited and isolated patch of coastal sage scrub habitat, and due to limited and disturbed habitat on-site and in the surrounding vicinity, this species is not expected to occur on-site.
grasshopper sparrow *Ammodramus savannarum*	Federal: None State: SSC Local: (SDC) Group 1	Known to occur in dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs, and scattered shrubs.	**Not Expected**. Due to limited and disturbed habitat on-site and in the surrounding vicinity, this species is not expected to occur on-site.

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Bell's sage sparrow *Artemisiospiza belli belli*	Federal: None State: WL Local: (SDC) Group 1	Inhabits large, unfragmented blocks of coastal sage scrub, southern mixed chaparral habitats	**Not Expected**. The study area supports only a limited and isolated patch of coastal sage scrub habitat, and due to limited and disturbed habitat on-site and in the surrounding vicinity, this species is not expected to occur on-site.
Yellow-Breasted Chats ***Icteriidae***			
yellow-breasted chat *Icteria virens*	Federal: None State: SSC Local: (SDC) Group 1	Known to occur with riparian forest, scrub, and woodland habitats. Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 feet of ground.	**Not Expected**. This species was not incidentally detected during 2021 surveys, nor was it observed during 2012 or 2018 survey conducted by CalTrans (2018).
Wood-Warblers ***Parulidae***			
yellow warbler *Setophaga petechia*	Federal: None State: SSC Local: (SDC) Group 2	Found in riparian forest, scrub, and woodland. Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	**Observed**. This species was observed within the study area during 2021 surveys and 2018 survey conducted by CalTrans (2018).
MAMMALS			
Evening Bats ***Vespertilionidae***			
pallid bat *Antrozous pallidus*	Federal: None State: SSC Local: (SDC) Group 2	Occurs in a wide variety of habitats including chaparral, coastal scrub, desert wash, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, riparian woodland, Sonoran desert scrub, upper montane coniferous forest, valley and foothill grasslands. Most common in open, dry habitats with rocky areas for roosting. For roosting, prefers rocky outcrops, cliffs and crevices with access to open habitats for foraging. Roosts must protect species from high temperatures. Very sensitive to disturbance of roosting sites.	**Not Expected**. Due to the lack of preferred habitat (e.g., rocky outcrops, cliffs, crevices) and limited and disturbed habitat on-site and in the surrounding vicinity, this species is not expected to occur on-site.

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Townsend's big-eared bat *Corynorhinus townsendi*	Federal: None State: SSC Local: (SDC) Group 2	Throughout California in a wide variety of habitats, including broadleaved upland forest, chaparral, chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, lower montane coniferous forest, meadow and seep, Mojavean desert scrub, riparian forest, riparian woodland, Sonoran desert scrub, Sonoran thorn woodland, upper montane coniferous forest, valley and foothill grassland. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings; tree cavities, mines, and caves. Roosting sites limiting. Extremely sensitive to human disturbance.	**Potential (Moderate)**. This species occurred within the immediate vicinity of the study area in 1989 in the CNDDB (CDFW 2021a).
western red bat *Lasiurus blossevillii*	Federal: None State: SSC Local: (SDC) Group 2	Prefers edges or habitat mosaics that have trees for roosting and open areas for foraging. Requires nearby water source. Roosting habitat includes forests and woodlands from sea level up through mixed conifer forests. Feeds over a wide variety of habitats including grasslands, shrublands, open woodlands and forests, and croplands. Not found in desert areas.	**Potential (Moderate)**. This species was documented 3.4 miles north-northwest of the study area in 2003 in the CNDDB (CDFW 2021a).
western yellow bat *Lasiurus xanthinus*	Federal: None State: SSC Local: None	Known only in Los Angeles and San Bernardino Counties south to the Mexican border. This species has been recorded below 600 m (2000 ft) in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts primarily in trees, including under palm trees, and forages for insects over water and among trees.	**Not Expected**. This species was historically documented in the CNDDB within the immediate vicinity of the study area in 1989 (CDFW 2021a). However, due to lack of suitable habitat on-site and in the surrounding vicinity, this species is not expected to occur on-site.
western small-footed myotis *Myotis ciliolabrum*	Federal: None State: None Local: (SDC) Group 2	Inhabits deserts, semi-deserts, and desert mountains, and roosts in crevices and cracks in canyon walls, caves, mine tunnels, behind loose tree bark, or in abandoned houses.	**Not Expected**. Due to lack of suitable habitat on-site, this species is not expected to occur on-site.
long-eared myotis *Myotis evotis*	Federal: None State: None Local: (SDC) Group 2	Inhabits mostly forested areas with broken rock outcrops. Can also be found in shrublands, meadows near tall timber, wooded streams, and reservoirs. Roosts in buildings, hollowed trees, mines, caves, and fissures.	**Not Expected**. Due to lack of preferred habitat on-site (e.g., forested areas with broken rock outcrops), this species is not expected to occur on-site.

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Yuma myotis *Myotis yumanensis*	Federal: None State: None Local: (SDC) Group 2	Occurs in lower montane coniferous forest, riparian forest, riparian woodland, and upper montane coniferous forest. Roosts in buildings, mines, caves, or crevices, but has also been seen roosting in abandoned swallow nests and under bridges.	**Potential (Moderate)**. This species was documented 3.4 miles north-northwest of the study area in 2003 in the CNDDB (CDFW 2021a).
Free-Tailed Bats ***Molossidae***			
western mastiff bat *Eumops perotis californicus*	Federal: None State: SSC Local: (SDC) Group 2	Known to occur in habitat consisting of extensive open areas within dry desert washes, flood plains, chaparral, cismontane oak woodland, coastal scrub, open ponderosa pine forest, and grasslands. Roosts primarily in crevices in rock outcrops and buildings.	**Potential (Moderate)**. This species was documented 3.4 miles north-northwest of the study area in 2003 in the CNDDB (CDFW 2021a).
pocketed free-tailed bat *Nyctinomops femorosaccus*	Federal: None State: SSC Local: (SDC) Group 2	Inhabits pinyon-juniper woodlands, riparian scrub, Sonoran desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree woodland, and palm oasis. Typically roosts in caves and rocky outcrops; prefers cliffs in order to obtain flight speed. Feeds on insects flying over bodies of water or arid desert habitats to capture prey.	**Not Expected**. This species was documented 3.4 miles north-northwest of the study area in 2003 in the CNDDB (CDFW 2021a). Due to lack of preferred arid habitat on-site, this species is not expected to occur on-site.
big free-tailed bat *Nyctinomops macrotis*	Federal: None State: SSC Local: (SDC) Group 2	Low-lying arid areas in Southern California within habitats such as desert shrub, woodlands, and evergreen forests. Need high cliffs or rugged, rocky outcrops or canyons for roosting sites. Feeds principally on large moths.	**Not Expected**. Due to lack of roosting habitat on-site, this species is not expected to occur on-site.
Rabbits & Hares ***Leporidae***			
San Diego black-tailed jackrabbit *Lepus californicus bennettii*	Federal: None State: SSC Local: (SDC) Group 2	Inhabits open grasslands, agricultural fields, and sparse coastal scrub where they occur primarily in arid regions with short grass.	**Potential (Low)**. This species was documented 1.8 miles northwest of the study area in 2016 in the CNDDB (CDFW 2021a). Although there is limited and disturbed habitat on-site and in the surrounding vicinity, this species has a low potential to occur on-site.

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Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Preferred Habitat/Known Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**
Kangaroo rats, Pocket mice, & Kangaroo mice ***Heteromyidae***			
Dulzura pocket mouse *Chaetodipus californicus femoralis*	Federal: None State: SSC Local: (SDC) Group 2	Slopes covered with chaparral and live oaks, and a variety of habitats including coastal scrub and grassland in San Diego County. This species is attracted to grass-chaparral edges.	**Not Expected**. This species was historically documented in the immediate vicinity of the study area in 1937 in the CNDDB (CDFW 2021a). Due to limited and disturbed habitat on-site and in the surrounding vicinity, this species is not expected to occur on-site.
northwestern San Diego pocket mouse *Chaetodipus fallax fallax*	Federal: None State: SSC Local: (SDC) Group 2	Moderate canopy coverage of coastal scrub, sagebrush, chaparral, grasslands, pinyon-juniper, and desert wash and scrub. Found in sandy, herbaceous areas with nearby shrubs for cover. Burrows are typically dug within gravelly or sandy soil.	**Not Expected**. Due to limited and disturbed habitat on-site and in the surrounding vicinity, this species is not expected to occur on-site.
Stephens' kangaroo rat *Dipodomys stephensi*	Federal: FE State: ST Local: (DNCMSCP) Covered; (SDC) Group 1	Inhabits annual and perennial grassland habitats, but may occur in coastal scrub or sagebrush with sparse canopy cover, or in disturbed areas. Known to occur in sparse perennial vegetation with firm soil, "neither hard nor sandy."	**Not Expected**. This species was documented 1 mile northwest of the study area in 1998 in the CNDDB (CDFW 2021a). Due to limited and disturbed habitat on-site and in the surrounding vicinity, this species is not expected to occur on-site.
Mice, Rats, & Voles ***Muridae***			
San Diego desert woodrat *Neotoma lepida intermedia*	Federal: None State: SSC Local: (SDC) Group 2	Found in a variety of coastal scrub, desert scrub, chaparral, cactus, and rocky habitats. Nests primarily against rock outcroppings, boulders, cacti, or areas of dense undergrowth.	**Not Expected**. Due to lack of preferred nesting habitat (e.g., rock outcroppings, boulders, cacti) on-site and in the surrounding vicinity, this species is not expected to occur on-site.
Weasels & relatives ***Mustelidae***			
American badger *Taxidea taxus*	Federal: None State: SSC Local: (SDC) Group 2	Found in a variety of habitats, including alkali marsh, desert wash, Great Basin scrub, marsh and swamp, meadow and seep, Mojavean desert scrub, riparian scrub, riparian woodland, valley and foothill grassland. Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils, and open, uncultivated ground to dig burrows. Preys on burrowing rodents.	**Not Expected**. This species was documented in the CNDDB within the immediate vicinity of the study area in 1986 (CDFW 2021a). However, this area has experienced extensive development since those observations, and due to limited and disturbed habitat on-site and in the surrounding vicinity, this species is not expected to occur on-site.

Observed = observed; Not Expected = species not expected to occur on-site due to the lack of suitable habitat or results of negative focused surveys; Potential = species has the potential to occur on-site.

Common Name ***Scientific Name***	**Sensitivity Status[1]**	**Preferred Habitat/Known Distribution[2]**	**Presence/Potential to Occur Within Biological Study Area**

[1] Federal (USFWS)
BGEPA = Bald and Golden Eagle Protection Act; FE = Federally Endangered; FT = Federally Threatened; FPE = Federally Proposed as Endangered; FPT = Federally Proposed as Threatened

State (CDFW)
FP = Fully Protected; SE = State Endangered; ST = State Threatened; SCE = State Candidate as Endangered; SCT = State Candidate as Threatened; SSC = State Species of Special Concern; WL = Watch List; Western Bat Working Group Regional Priority Matrix Species.

Local
County of San Diego 2009 Draft North County Multiple Species Conservation Plan (DNCMSCP) – Covered, Narrow Endemic (NE)
County of San Diego Sensitive Species Lists (SDC)

- Group 1 = listed as threatened or endangered or has very specific natural history requirements that must be met
- Group 2 = not common but not so rare that extirpation or extinction is imminent without immediate action

[2] Sources for Preferred Habitat:
CDFW. 2021a. *California Natural Diversity Database (CNDDB)*. RareFind, Version 5.0 (Commercial Subscription). Sacramento, California: CDFW, Biogeographic Data Branch. Available online at: https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed on January 6, 2021.

CDFW. 2021b. *California Wildlife Habitat Relationships*. Available online at: https://wildlife.ca.gov/Data/CWHR/Life-History-and-Range. Accessed on July 20, 2021.

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Unitt, Phil. 2004. *The Birds of San Diego County from the San Diego County Bird Atlas*. San Diego Natural History Museum. Available online at: http://sdplantatlas.org/BirdAtlas/BirdPages.aspx.

Observed = observed; Not Expected = species not expected to occur on-site due to the lack of suitable habitat or results of negative focused surveys; Potential = species has the potential to occur on-site.

Appendix A

Aquatic Resources Delineation Report

ESA

PASEO NORTE SENIOR AFFORDABLE HOUSING PROJECT

Aquatic Resources Delineation Report

Prepared for
County of San Diego Department of
General Services

October 2022

PASEO NORTE SENIOR AFFORDABLE HOUSING PROJECT

Aquatic Resources Delineation Report

Prepared for
County of San Diego Department of General Services

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EXECUTIVE SUMMARY

The County of San Diego Department of General Services proposes the Paseo Norte Senior Affordable Housing Project, which comprises 15.59 acres along 13th Street behind the County's Ramona Public Library. The survey area includes Santa Maria Creek, an identified blue-line intermittent stream, the adjacent alluvial terraces and developed areas. An aquatic resources delineation was conducted to identify potentially jurisdictional aquatic features under the Clean Water Act sections 404 (waters of the U.S.) and 401 (waters of the state) and features subject to sections 1600 et seq. of the Fish and Game Code. The proposed project was found to support aquatic resources including southern cottonwood-willow riparian forest, southern willow scrub, and an emergent wetland. Results and study details are found in Chapter 5.

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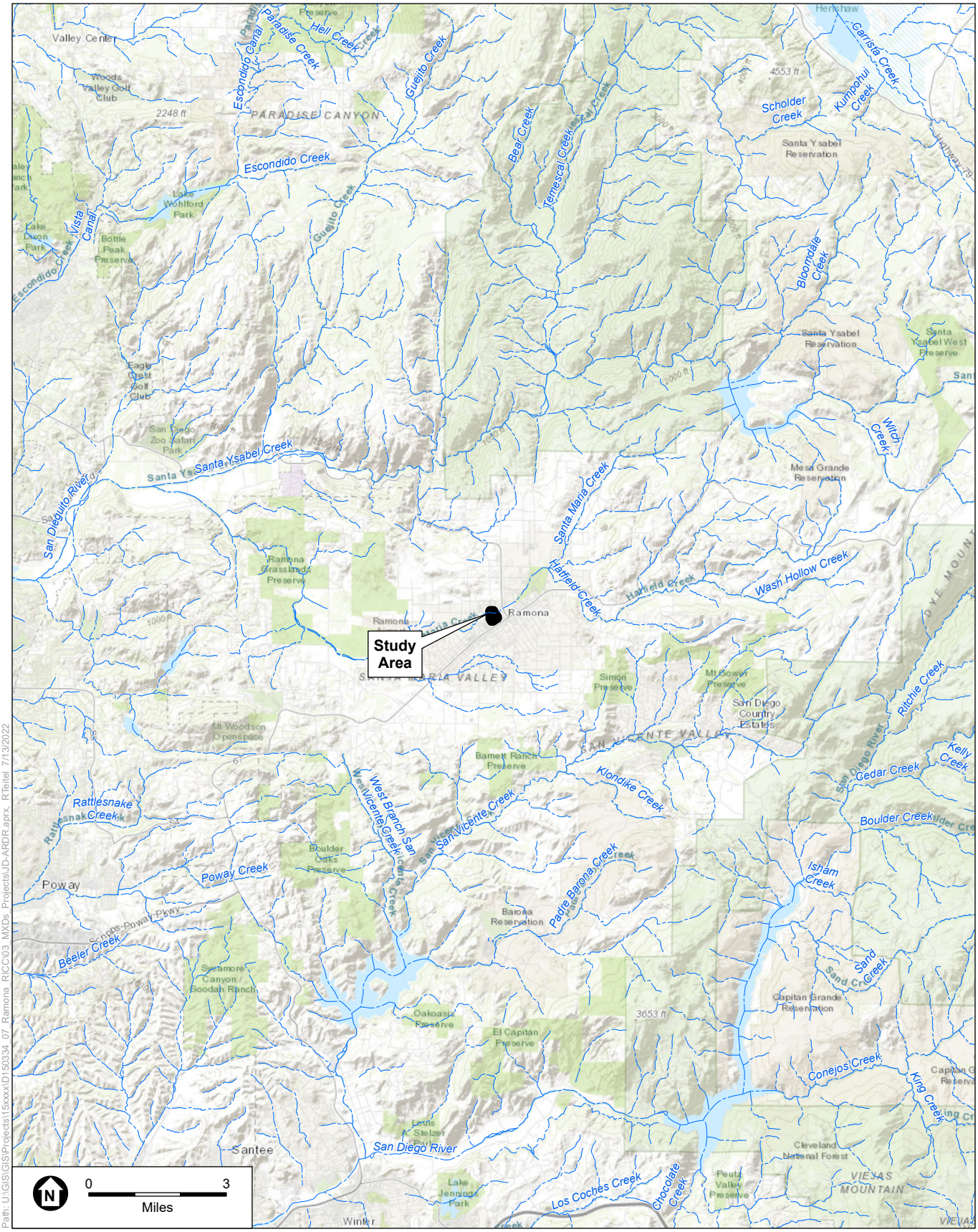
CHAPTER 1
Introduction

This report describes the methodology and results of an aquatic resources delineation conducted by Environmental Science Associates (ESA) for the County of San Diego Department of General Services (County) Paseo Norte Senior Affordable Housing Project (project). The project site is located on APNs 281-182-17 and 281-182-18 (8.83 acres) (project site). The project would include senior group residential housing, senior center, and Ramona Program for All-Inclusive Care for the Elderly (PACE) Wellness Center (PACE Wellness Center). Implementation of the residential building, senior center, and PACE Wellness Center would require the construction of utility services and relocation (or undergrounding) of utility lines, including water, wastewater, storm drainage, electricity, natural gas, telecommunications, and solid waste disposal areas. It also includes a public park located north of the residential and senior center uses, extending to the Santa Maria Creek.

The purpose of the delineation was to identify potential waters of the U.S. subject to the regulatory jurisdiction of the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the federal Clean Water Act (CWA); waters of the state subject to the regulatory jurisdiction of the San Diego Regional Water Quality Control Board (RWQCB) pursuant to Section 401 of the federal CWA and the Porter-Cologne Water Quality Control Act; and streambed and riparian habitat subject to the regulatory jurisdiction of the California Department of Fish and Wildlife (CDFW) pursuant to Sections 1600 et seq. of Fish and Game Code (FGC). All aquatic resources and boundaries described in this report are considered preliminary pending verification from the regulatory agencies.

1.1 Survey Location

The project site is located in the community of Ramona in northern San Diego County, California (**Figure 1**). The project site includes undeveloped lands within an un-sectioned portion of Township 13 South, Range 1 East in the Ramona and San Pasqual U.S. Geological Survey (USGS) 7.5-minute quadrangle topographic maps (**Figure 2**). Lands within and around the survey area are mainly developed or disturbed with residential, commercial, and agricultural land uses. The project site is bound by Walnut Street and Santa Maria Creek to the north; the terminus of 12th Street and vacant parcels to the east; vacant land with multiple degraded concrete pads to the south; and Maple Street/13th Street and a salvage yard to the west, as shown in Figure 2, Vicinity Map. The study area includes the project site, plus a 100-foot buffer, and occupies 15.59 acres (**Figure 3**).

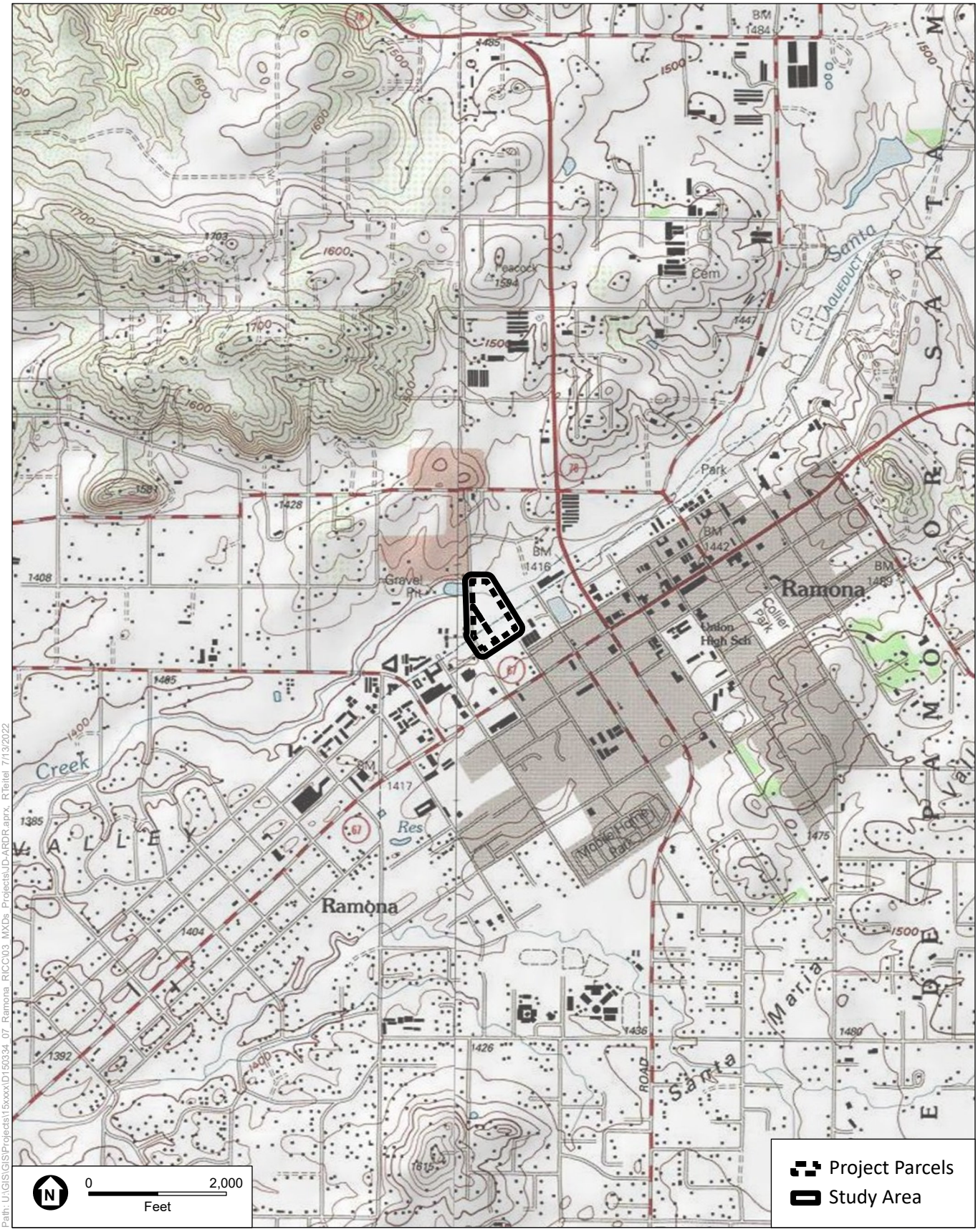


SOURCE: ESRI World Topographic Map.

Paseo Norte Senior Affordable Housing Project

Figure 1
Regional Location

ESA



Path: U:\GIS\GIS\Projects\15xxxx\D150334_07_Ramona_RICC\03_MXDs_Projects\JD-ARDR.aprx, RTeitel 7/13/2022

SOURCE: USGS Topographic Series (San Pasqual, Ramona), 2018.

Paseo Norte Senior Affordable Housing Project

Figure 2
Vicinity Map

ESA

SOURCE: Mapbox, 2020.

Paseo Norte Senior Affordable Housing Project

Figure 3
Study Area

ESA

1.1.1 Directions to the Study Area

The portion of the study area along public roadways is publicly accessible; however, buffer areas may extend into private lands. The study area can be accessed from SR-67 north or south by turning west on 13th Street. The project is located directly behind the Ramona Public Library and on the north side of 13th Street.

1.2 Contact Information

1.2.1 Applicant

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CHAPTER 2
Existing Conditions

2.1 Aquatic Resources Delineation Study Area

The study area occupies 15.59 acres of undeveloped land and is located within the community of Ramona in unincorporated San Diego County. The study area is comprised of undeveloped land. Along the northern portion of the study area, Santa Maria Creek and its associated riparian vegetation communities traverses the study area, flowing from east to west. Other native habitats within the study area are disturbed and are located on sandy loam soils and gravelly Riverwash substrate. Disturbances to the project site associated with the easement, transient activities, and recreational use include soil disturbance, high non-native species cover, litter, encampments, and soil compaction from regular trail use. A manmade culvert and dissipation pool occurs on the southwest corner of the study area adjacent to the unpaved portion of 13th Street. The study area occurs on flat topography that has an elevation range of approximately 1,410 to 1,425 feet above mean sea level (AMSL). Surrounding land uses include residential development, public, and industrial and commercial uses (e.g., public library, automotive body repair, towing and wrecking yards, etc.).

2.2 Vegetation Communities and Land Cover Types

Vegetation communities and land cover types in the survey area are summarized in **Table 1** and depicted in **Figure 4**. Vegetation communities and cover types within the study area were classified according to *Draft Vegetation Communities of San Diego County* (Oberbauer 2008) with modifications to describe site-specific cover types related to aquatic resources. A list of plant taxon observed during the study can be found in **Appendix A - Floral Compendium**.

Southern Cottonwood-Willow Riparian Forest (61330)

Southern cottonwood-willow riparian forest occurs on the northern portion of the study area and is associated with Santa Maria Creek. Trees dominating the canopy cover include black willow (*Salix gooddingii*, FACW), arroyo willow (*Salix lasiolepis*, FACW), and western cottonwood (*Populus fremontii*, UPL), while the understory includes mulefat (*Baccharis salicifolia*, FAC), herbs such as mugwort (*Artemisia douglasiana*, FAC), stinging nettle (*Urtica dioica*, FAC), non-native grasses such as smilo grass (*Stipa miliacea* var. *miliacea*, UPL), giant reed (*Arundo donax*, FACW), and pockets of non-vegetated riverwash substrate.

TABLE 1
NATURAL COMMUNITIES AND LAND COVER TYPES WITHIN THE STUDY AREA

Natural Community/Land Cover Type[1]	Project Site (acres)	100-Foot Buffer (acres)	Total (acres)
Aquatic/Riparian			
Southern Cottonwood-Willow Riparian Forest (61330)	0.90	0.57	1.47
Southern Willow Scrub (63320)	0.91	0.49	1.40
Disturbed Emergent Wetland (52440)	0.01	0.22	0.23
Salt Grass Grassland (42130)	0.68	0.12	0.80
Upland			
Diegan Coastal Sage Scrub - Inland Form (32520)	-	0.06	0.06
Disturbed/Developed			
Non-Native Grassland (42200)	0.36	0.04	0.40
Non-Native Grassland: Broadleaf-Dominated (42210)	5.22	2.18	7.40
Disturbed (11300)	0.04	-	0.04
Urban/Developed (12000)	0.71	3.07	3.78
TOTAL	**8.83**	**6.75**	**15.58**

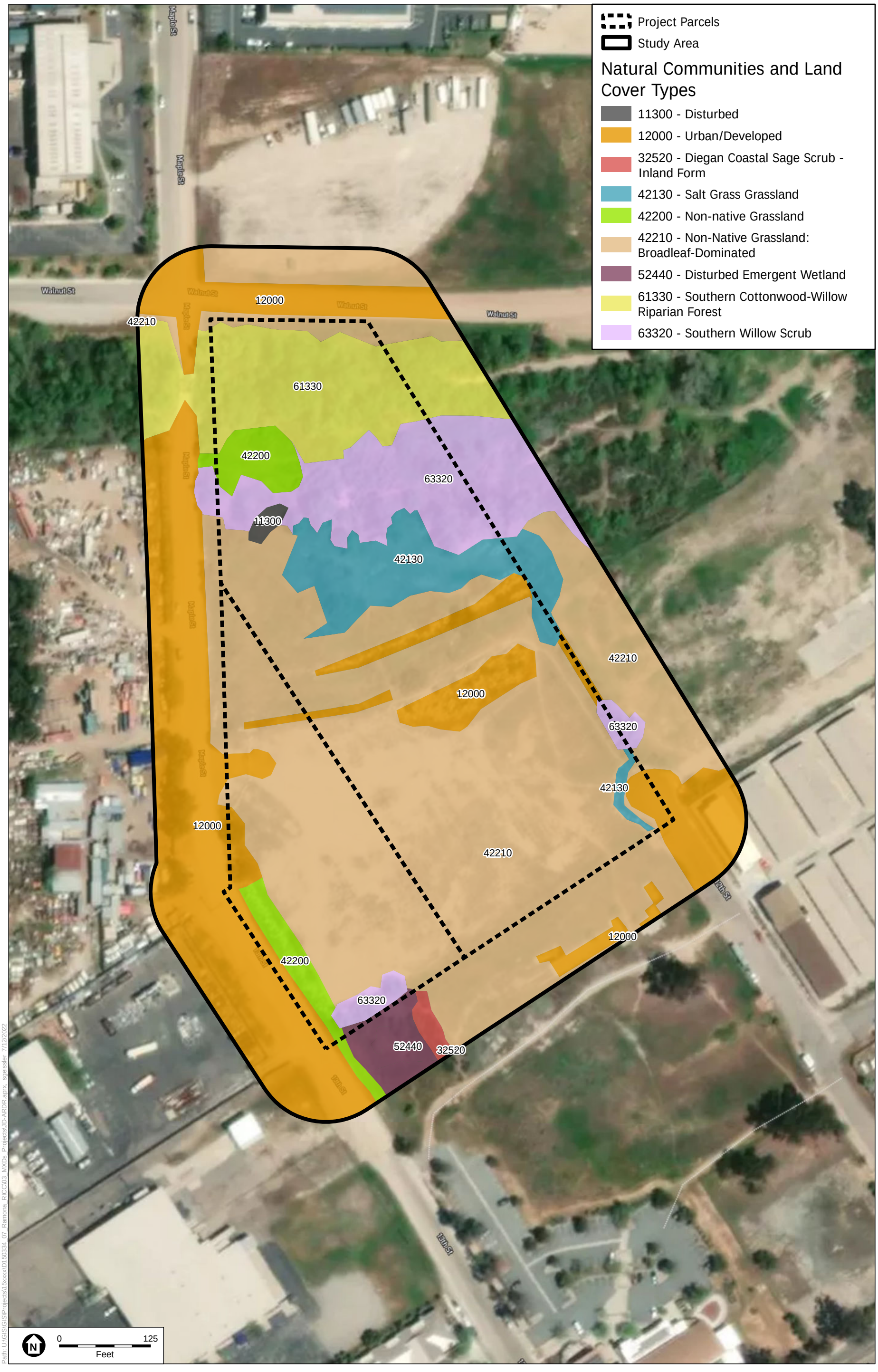
NOTE:

[1] Oberbauer et al. 2008

SOURCE: ESA 2021

Southern Willow Scrub (63320)

Southern willow scrub occurs on the northern portion of the study area and is associated with the Santa Maria Creek floodplain. Species dominating this natural community include mulefat, arroyo willow, sandbar willow (*Salix exigua*, FACW), a few black willows, and a single cottonwood tree. The understory is dominated by salt grass (*Distichlis spicata*, FAC) and supported patches of native species, such as stinging nettle and mugwort, and non-native species including but not limited to short pod mustard (*Hirschfeldia incana*, UPL), wild radish (*Raphanus sativus,* UPL), and several species of non-native grasses (e.g., *Bromus* spp., *Avena* spp., UPL). Additionally, a small patch of southern willow scrub occurs near the southwest corner of the study area just west of Maple Street, which is associated with a drain that directs water under 13th Street. A strip of southern willow scrub also occurs along a human-made drainage fed by runoff from the end of the 12th Street cul-de-sac (as shown in Figure 4). Although a small portion of this vegetation community overhangs onto the project site, the majority of the community occurs within an off-site portion of the study area (i.e., within the 100-foot buffer) on fenced private property that was not accessed during the surveys.



SOURCE: ESA, 2021.

Paseo Norte Senior Affordable Housing Project

Figure 4

Natural Communities and Land Cover Types

ESA

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Disturbed Emergent Wetland (52440)

Emergent wetlands are typically persistent wetlands dominated by low growing, perennial wetland species. A disturbed emergent wetland that is a human-made retention basin occurs as a concave depression in the southwest corner of the study area along the east side of 13th Street and north of the Ramona Main Library parking lot. This emergent wetland is considered disturbed and dominated by non-native grasses and species such as broad leaf filaree (*Erodium botrys*) and has highly disturbed soils that contain construction debris (e.g., concrete, asphalt). Native plant species associated with this community include water pygmyweed (*Crassula aquatica*), hairy clover fern (*Marsilea vestita*), pale spike-rush (*Eleocharis pacifica*), grass poly (*Lythrum hyssopifolium*), Mexican speedwell (*Veronica peregrina* var. *xalapensis*), fringed willowherb (*Epilobium ciliatum*), chufa (*Cyperus esculentus*), and seaside barley (*Hordeum marinum*) in the north corner of the wetland. The wetland is dominated by non-native species such as spiny-leaf sow-thistle (*Sonchus asper*), broad leaf filaree, curly dock (*Rumex crispus*), and rat-tail six-weeks grass (*Festuca myuros*) along the basin bottom. In addition, small-flower tamarisk (*Tamarisk parviflora*), was observed within this community along the eastern edge of the wetland. Due to the high cover of non-native species, as well as the presence of asphalt and concrete debris within the soil, this vegetation community was classified as disturbed. This wetland supports some vernal pool indicator species (i.e., water pygmyweed, grass poly and hairy clover fern) at the lowest elevation in the basin where water remains ponded; however, it does not function like a vernal pool as water ponds more frequently and for longer durations than a natural vernal pool and is therefore classified as a disturbed emergent wetland.

Salt Grass Grassland (42130)

This vegetation community occurs near the middle of the study area and is associated with the Santa Maria Creek floodplain. Salt grass grassland is a native grassland consisting of salt grass with scattered forbs and grasses. Salt grass makes up greater than 50% of the cover, while 40% consist of other native species including mugwort, Mexican rush (*Juncus mexicanus*, FACW), clustered field sedge (*Carex praegracilis*, FACW), southern tarplant (*Centromadia parryii* ssp. a*ustralis*, FAC), and evening-primrose (*Oenothera elata*, FACW). The remaining 10% of cover consisted of non-native plant species such as spiny-leaf sow-thistle, tocalote (*Centaurea melitensis*, UPL), Italian thistle (*Carduus pycnocephalus* ssp. *pycnocephalus*, UPL), wild radish (*Raphanus sativus*, UPL), and short-pod mustard.

Diegan Coastal Sage Scrub – Inland Form (32520)

One small patch of Diegan coastal sage scrub occurs on the southwest corner of the study area as a strip above the disturbed emergent wetland. This vegetation community primarily consists of California buckwheat (*Eriogonum fasciculatum*, UPL), California sagebrush (*Artemisia californica*, UPL), and deerweed (*Acmispon glaber*, UPL).

Non-native Grassland: Broadleaf Dominated (42210)

This vegetation community makes up the majority of the site, occurring on the southern portion as well as in the northern portions of the study area. Vegetation consists of a mixture of native

and non-native grasses (salt grass, red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), seaside barley, and slender wild oat (*Avena barbata*, UPL). Non-native broadleaf species include broad leaf filaree, stinkwort (*Dittrichia graveolens*, UPL), Italian thistle, blessed milk thistle (*Silybum marianum*, UPL), smooth cat's ear (*Hypochaeris glabra*, UPL), tocalote, red brome (*Bromus rubens*, UPL), ripgut grass (UPL), wild radish, and short-pod mustard. This vegetation community also includes Peruvian pepper tree (*Schinus molle*, FACU) and Mexican palo verde (*Parkinsonia aculeata*, FAC).

Non-native Grassland (42200)

Non-native grassland occurs in two patches within the study area: one is located in the northwest portion, adjacent to Maple Street, and the other occurs directly adjacent to and parallel to Maple Street in the southwest corner. Both patches consist primarily of ripgut grass, slender wild oat, Bermuda grass (*Cynodon dactylon*, UPL), and seaside barley.

Disturbed (11300)

One small patch of disturbed habitat occurs just east of Maple Street. This vegetation community is a monoculture of short-pod mustard and wild radish.

Urban/Developed (12000)

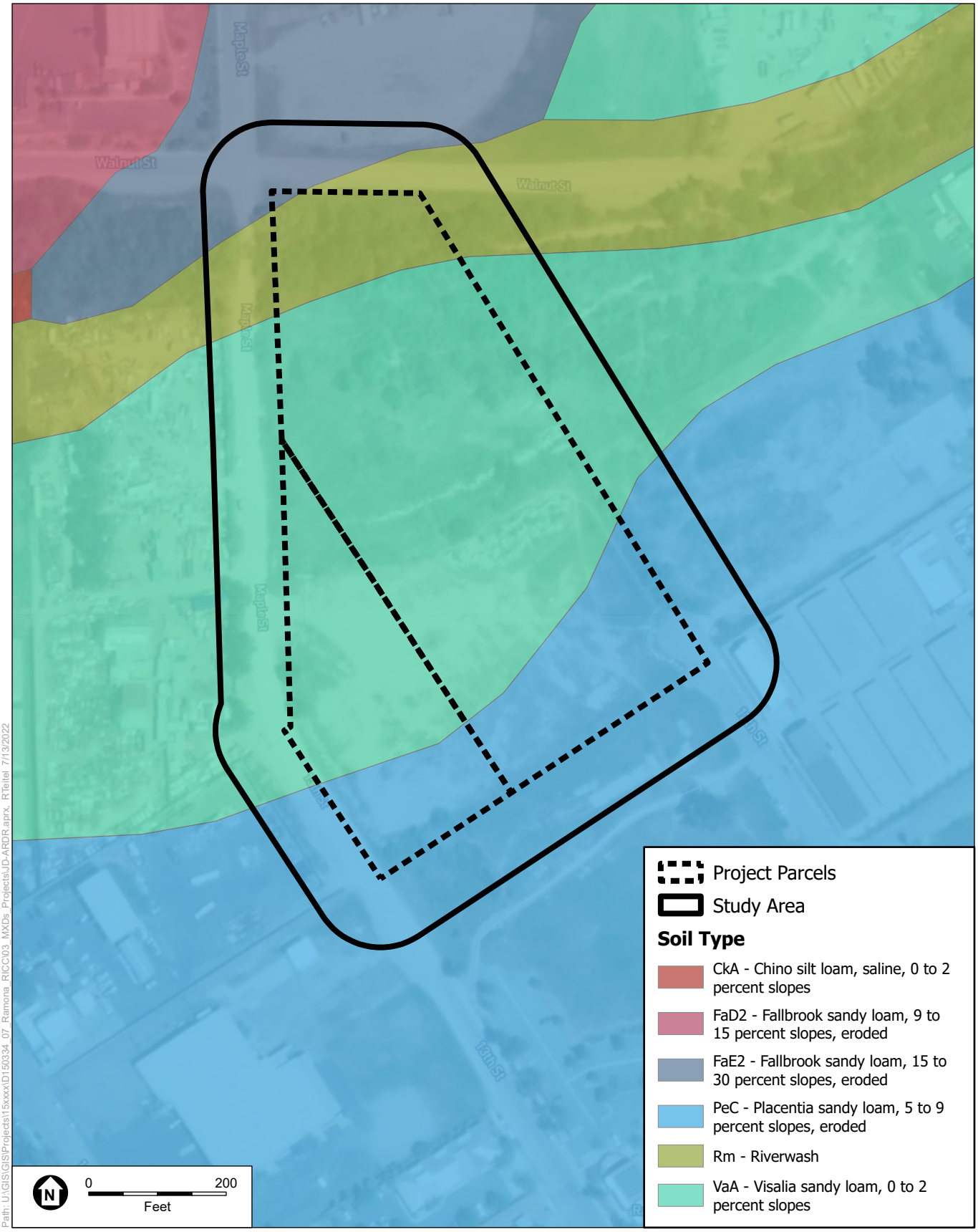
This land cover type consists of developed areas, paved roads and lots, buildings, areas with concrete slabs and rip rap, and disturbed open areas directly adjacent to roads, including areas with ornamental trees such as Peruvian pepper trees and eucalyptus (*Eucalyptus* sp.). In addition, this land cover type includes a human-made bio swale, which contains planted species including deergrass (*Muhlenbergia rigens*), and San Diego sedge (C*arex spissa*).

2.3 Soils

Soils within the study area are shown in **Figure 5** and described below. Soils in the study area are disturbed and have asphalt and concrete debris found in the A and B horizons. Three of the four soil types found on site are listed as hydric soils in the National Hydric Soils list in San Diego County.

Fallbrook sandy loam, 15 to 30 percent slopes, eroded (FaE2)

This soil map unit is not considered a hydric soil in San Diego County but is subject to flooding throughout its range. Fallbrook sandy loam is well-drained and is typically found over bedrock up to 50 inches deep. Fallbrook soils are moderately permeable with a slow to moderate run-off rate and a moderate to high erosion hazard. In the study area, Fallbrook sandy loam is found in the northwest corner at the intersection of Maple Street and Walnut Street.



SOURCE: Mapbox, 2020; USDA.

Paseo Norte Senior Affordable Housing Project

Figure 5
Soils

ESA

Placentia sandy loam, 5 to 9 percent slopes, eroded (PeC)

This soil map unit is considered a hydric soil in San Diego County. Placentia sandy loam is gently sloping, moderately well drained with a moderate erosion hazard and is found on old alluvial fans and floodplains. In the study area, Placentia sandy loam is found in the southern portion of the site and is associated with SP1 and SP4, the disturbed emergent wetland and associated vernal pool, and the southern willow scrub areas adjacent to Santa Maria Creek and a small patch along the eastern edge of the study area.

Riverwash (Rm)

This soil map series is considered a hydric soil in San Diego County. Riverwash occurs in intermittent stream channels and is sandy, gravelly, and very well drained. It can be barren or found with scattered coast live oak and sycamores trees growing along the banks. In the study area, it occurs on the northern end of the study area and aligns with Santa Maria Creek.

Visalia sandy loam, 0 to 2 percent slopes (VaA)

This soil map series is considered a hydric soil in San Diego County. Visalia sandy loam is moderately well-drained and found on alluvial fans and floodplains with gentle slopes. In the study area, it is the dominant soil type and is found in the middle of the project site.

2.4 Hydrology

The study area is within the Santa Maria Creek Watershed (USGS Hydrologic Unit Code 18070304). In the Water Quality Control Plan for the San Diego Basin (9) (Basin Plan; RWQCB 2016), the study area is within the San Dieguito Hydrologic Unit, Santa Maria Valley Hydrologic Area, and Ramona Hydrologic Subarea (905.41).

Overall, site hydrology drains through Santa Maria Creek, which drains into the San Dieguito River and Lake Hodges providing a corridor for both hydrological and habitat linkages for essential ecosystem processes. The San Dieguito River is a Traditionally Navigable Water (TNW) (USACE 2022). Santa Maria Creek is considered a relatively permanent water and is identified on **Figure 6** as a National Hydrography Dataset (NHD) blue-line intermittent stream.

The National Wetlands Inventory (NWI) maps riverine habitat (R4SBC) within the study area (Figure 6). The NWI features within the study area and Santa Maria Creek were verified as present during the field survey, occurring as riverine. Palustrine wetlands, including a disturbed emergent wetland, were not identified on the NWI map but were identified during the wetland determination.

Santa Maria Creek is not listed on the Clean Water Act 303(d) list of impaired waters and has an integrated report category 2, which are waters with insufficient information to determine an appropriate decision recommendation. Beneficial uses of this 17-mile creek include swimming (water contact recreation), drinking water supply (municipal and domestic supply), aquatic life support (warm freshwater habitat), and wildlife habitat (State of California 2019). Santa Maria Creek receives urban runoff from several outfall culverts within and outside the study area.

SOURCE: NHD/NWI, 2020; ESA, 2021.

Paseo Norte Senior Affordable Housing Project

Figure 6

National Wetlands Inventory

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The nearest stream gage data to the study area is approximately 4.1 miles downstream of the study area located in Ramona. The monthly mean discharge for Santa Maria Creek from January 2010 through May 2021 is presented in **Table 2**.

TABLE 2
MONTHLY MEAN DISCHARGE FOR USGS STATION NO. 11028500 (SANTA MARIA C NR RAMONA CA) (FT^3/S)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2010	30.3	10.4	3.96	2.22	0.184	0.073	0.073	0.025	0	0.225	0.431	55.3
2011	14.7	37.7	22.2	5.47	1.58	0.389	0.064	0.066	0.054	0.068	0.19	0.129
2012	0.17	0.333	1.28	0.862	0.161	0.029	0.002	0	0	0	0	0.013
2013	0.074	0.087	0.116	0.056	0.005	0	0	0	0	0	0	0
2014	0	0.001	0.036	0.024	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0.559	0	0	0	0	0
2016	17.3	0.448	0.036	0.006	0	0	0	0	0	0	0	0.232
2017	42.2	70.1	10.6	1.16	1.15	0.096	0	0	0	0	0	0
2018	0.224	0.101	0.087	0.06	0.01	0	0	0	0	0	0	0
2019	0	62.3	8.44	1.45	0.584	0.069	0	0	0	0	2.13	7.36
2020	0.609	0.416	12.4	41.1	1.1	0.141	0.015	0	0	0	0	0.019
2021 (current year)	0.333	0.173	0.444	0.103	0.002	-	-	-	-	-	-	-
Mean of Monthly Discharge*	20	22	21	5.7	1.8	0.44	0.06	0.07	0.03	0.07	36	1.9

*Mean of monthly discharge is calculated from data starting in 1912.

SOURCE: USGS 2021

2.5 Climate

The regional vicinity is described as having a Mediterranean climate characterized by warm, dry summers and cool winters with relatively low rainfall. Average highs for the region range between 66º Fahrenheit (F) in the winter (December and January) and 90º F in the summer (July and August), while average lows range between 35º F in in the winter and 57º in the summer (NOAA 2021).

2.5.1 Agricultural Applied Climate Information System Wetlands Climate Table

The Agricultural Applied Climate Information System (AgACIS) Wetlands (WETS) climate table for the Ramona Airport, California is included below in **Table 3** for the years January 2010 through December 2020. Historically (11-year sampling period), the month of March has experienced 1.67 inches and April has experienced 1.16 inches mean rainfall levels; however, during the approximately two weeks leading up to the aquatic resources delineation, 0.23 inches of precipitation was recorded in the region (NOAA 2021a). Furthermore, the total precipitation

for the previous month of March was above the historic annual mean reported for the month of March; however, February mean rainfall levels were below the historic annual mean reported for that month. Based on site conditions and review of the AgACIS data provided in **Table 3** below, it appears conditions at the time of the delineation were dry as compared to those typical for the spring months.

TABLE 3
WETS TABLE: MONTHLY TOTAL PRECIPITATION FOR RAMONA AIRPORT, CA

Year		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2010		M7.16	M3.07	0.38	2.13	0.02	0.02	0.02	0.01	0.19	3.27	2.29	9.20	27.76
2011		1.07	4.81	2.34	0.56	0.51	0.09	M0.07	0.01	0.20	0.48	3.25	0.58	13.97
2012		0.65	M2.11	2.42	1.54	0.20	0.00	0.04	0.08	0.03	0.75	0.62	2.12	10.56
2013		1.60	0.96	1.41	0.06	0.47	0.00	0.08	0.01	0.00	1.62	0.21	0.84	7.26
2014		0.19	2.93	0.98	0.99	T	0.00	0.16	0.25	0.00	T	0.93	3.67	10.10
2015		0.79	0.82	1.23	0.49	1.48	0.23	2.38	T	1.30	0.55	1.21	1.77	12.25
2016		6.54	0.11	1.41	1.35	0.25	T	0.00	0.00	0.50	0.18	1.45	5.39	17.18
2017		7.34	7.13	0.09	T	1.14	0.01	0.01	0.17	0.05	T	T	0.04	15.98
2018		3.29	0.71	1.52	0.06	0.18	0.00	T	0.00	0.00	0.99	1.34	2.70	10.79
2019		3.21	8.77	1.74	0.23	1.36	0.00	T	0.00	0.09	0.01	4.35	3.86	23.62
2020		0.27	0.77	4.87	4.19	0.13	0.13	0.00	0.00	0.00	0.03	1.15	1.11	12.65
Mean (2010–2020)		**2.92**	**2.93**	**1.67**	**1.16**	**0.57**	**0.05**	**0.31**	**0.05**	**0.22**	**0.88**	**1.68**	**2.84**	**14.74**
2021 (*current year*)		3.02	0.16	2.13	--	--	--	--	--	--	--	--	--	--
Precipitation (1998–2020)	**Average**	2.38	3.21	1.48	1.13	0.48	0.04	0.16	0.06	0.15	0.72	1.26	2.30	**Total** 13.36
	30% chance less than	0.76	1.31	0.64	0.45	0.12	0.00	0.00	0.00	0.00	0.10	0.56	0.76	**Annual** 9.96
	30% chance more than	2.84	3.90	1.81	1.32	0.48	0.04	0.06	0.05	0.15	0.58	1.50	2.75	**Annual** 14.55
	Average number of days with 0.10 inch or more	4	5	3	3	1	0	0	0	0	1	2	4	**Total** 25
Average Daily Temperature (1998–2020)	**Min**	35.4	36.7	39.2	42.0	47.9	51.7	57.1	57.4	54.2	47.4	39.7	34.7	**Average** 45.3
	Max	66.8	65.7	68.1	71.3	75.5	82.9	89.2	90.7	87.9	80.3	72.7	65.7	**Average** 76.4
	Mean	51.1	51.2	53.6	56.7	61.7	67.3	73.2	74.1	71.1	63.9	56.2	50.2	**Average** 60.8

NOTE:

[1] M = missing and is used when more than one day of data is missing for a month.

[2] T = trace amount of precipitation.

[3] WETS data is typically provided over a 30-year period; however, no WETS data is available from the Ramona Airport station prior to 1998.

SOURCE: NOAA 2021

2.5.2 Antecedent Precipitation Tool

The Antecedent Precipitation Tool (APT) was developed by the USACE to compare recorded precipitation levels at a given location and date to the normal precipitation range at that location over the preceding 30 years. This tool analyzes similar data found in the AgACIS table above; however, it averages precipitation from several monitoring stations and generates calculations that compare precipitation levels over time. Under the final Navigable Waters Protection Rule (NWPR), the determination of a waterbody is generally informed by understanding conditions in a "typical year" (i.e., the normal periodic range of precipitation and other climate variables for that waterbody) and this tool provides assistance in achieving that determination.

Both the single-point and watershed analyses were completed for the date of the delineation (April 2, 2021). The APT outputs are provided in **Appendix B – APT Outputs**. The single point analysis concentrates on a centralized locational point within the study area, while the watershed analysis is based on the Palmer Drought Severity Index (PDSI) and consists of an approximate 45.92 square mile area of the San Dieguito River watershed including the study area. The resulting outputs include the following information:

Palmer Drought Severity Index (PDSI) – The PDSI is a monthly dataset published by the National Oceanic and Atmospheric Association (NOAA) and is intended to measure the duration and intensity of the long-term drought-inducing circulation patterns. Long-term drought is cumulative; therefore, the results of a current month are dependent on current weather patterns in relation to the cumulative patterns for previous months.

Average Antecedent Precipitation Score (AAPS) – The AAPS is used to determine how "wet" or "dry" a particular location (i.e., sampling point and/or date) is. The final condition is determined as follows:

- Wetter than Normal – Condition value greater than 14
- Normal – Condition ranging from 10 to 14
- Drier than Normal – Condition value less than 10

The average of the dates and/or sampling points analyzed are presented as an AAPS and a Preliminary Determination is made for the sampling location.

The results of the PDSI indicated the region is experiencing a severe drought, whereas the AAPS of 10 resulted in a Preliminary Determination of normal conditions. While it appears that the region is enduring a drought, conditions within the study area generally appear to fall within the low end of the normal range.

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CHAPTER 3
Regulatory Framework

3.1 Waters of the U.S.

3.1.1 Clean Water Act

The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the U.S. and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was significantly reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972.

In 1986, the term "waters of the United States" was defined as follows (33 CFR 328.3[a]):

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

(2) All interstate waters including interstate wetlands;

(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:

  (i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or

  (ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

  (iii) Which are used or could be used for industrial purpose by industries in interstate commerce;

(4) All impoundments of waters otherwise defined as waters of the United States under the definition;

(5) Tributaries of waters identified in paragraphs (a)(1) through (4) of this section;

(6) The territorial seas; and

(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1) through (6) of this section.

(8) Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.11(m), which also meet the criteria of this definition) are not considered waters of the U.S.

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

Section 404 of the CWA establishes a program to regulate the discharge of dredged or fill material into waters of the U.S., including wetlands. Activities in waters of the U.S. regulated under this program include fill for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports) and mining projects. Section 404 requires a permit before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from Section 404 regulation (e.g., certain farming and forestry activities).

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 U.S. 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.

Solid Waste Agency of Northern Cook County (SWANCC) v. United States

In 2001 and again in 2003, the agencies developed guidance to address the definition of "waters of the United States" under the Clean Water Act following the SWANCC Supreme Court decision. Isolated, intrastate waters that are capable of supporting navigation by watercraft remain subject to CWA jurisdiction after SWANCC if they are traditional navigable waters. However, SWANCC eliminates CWA jurisdiction over isolated waters that are intrastate and non-navigable.

Rapanos v. United States & Carabell v. United States

The U.S. Army Corps of Engineers (USACE) and the Environmental Protection Agency (EPA) have issued a set of guidance documents detailing the process for determining CWA jurisdiction over waters of the United States (waters of the U.S.) following the 2008 Rapanos decision. The EPA 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 U.S. under the CWA. The complete set of guidance documents, summarized as key points below, were used to collect relevant data for evaluation by the EPA 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 certain circumstances, 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 EPA will apply the significant nexus standard to assess the flow characteristics and functions of a potential water of the U.S. to determine if it significantly affects the chemical, physical, and biological integrity of the downstream TNW.

3.2 Waters of the State

Most projects involving water bodies or drainages are regulated by the RWQCB, the principal state agency overseeing water quality of the state at the local/regional level. The study area is located within the jurisdiction of the San Diego RWQCB. Where waters of the state overlap with waters of the U.S., pending verification from the USACE, those waters would be regulated under Section 401 of the CWA, which is described above in Section 3.1.

The term "waters of the state" is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (CWC § 13050[e]). Waters of the state include those waters also under the jurisdiction of the federal government; however, the definition of waters of the State is broader than that for waters of the U.S. in that all waters are considered to be a water of the state regardless of circumstances or condition, including isolated waters pursuant to the California Porter-Cologne Act (CWC Section 13000 *et seq)*. However, waters of the State must still show wetland parameters (defined below) to be considered wetland waters or OHWM-indicators to be considered non-wetland waters.

In the absence of waters of the U.S., waters may be regulated under the Porter-Cologne Water Quality Control Act if project activities, discharges, or proposed activities or discharges could affect California's surface, coastal, or ground waters. The permit submitted by the applicant and issued by the RWQCB is either a Water Quality Certification in the presence of waters of the U.S. or a Waste Discharge Requirement in the absence of waters of the U.S.

3.3 Rivers, Streams, and Lakes

Pursuant to Division 2, Chapter 6, Section 1600 et seq. of the Fish and Game Code (FGC), California Department of Fish and Wildlife (CDFW) regulates all diversions, obstructions, or changes to the natural flow or bed, channel or bank of any river, stream, or lake that supports fish or wildlife. A notification of a Lake or Streambed Alteration Agreement must be submitted to CDFW for "any activity that may substantially change the bed, channel, or bank of any river, stream, or lake." In addition, CDFW has authority under the FGC over wetland and riparian habitats associated with lakes and streams. The CDFW reviews proposed actions, and if necessary, submits to the applicant a proposal that includes measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and the applicant is the Lake or Streambed Alteration Agreement (LSAA).

CHAPTER 4
Methodology

4.1 Pre-Field Review

Prior to completing the aquatic resources delineation, ESA conducted a review of available background information pertaining to the study area setting. The following resources were reviewed:

- Natural Resources Conservation Service (NRCS), Web Soil Survey (NRCS 2021)
- USGS 7.5' topographic quadrangle map – Ramona and San Pasqual (USGS 2016)
- Current and historical aerial imagery (Google Earth 2021 and HistoricAerials.com 2020)
- Precipitation data from the Antecedent Precipitation Tool (APT) (USACE 2021) and Applied Climate Information System (National Oceanic and Atmospheric Association [NOAA] 2021)
- The National Wetlands Inventory (NWI) (U.S. Fish and Wildlife Service 2021)
- National Hydrography Dataset (NHD) (USGS 2021)
- Federal Emergency Management Agency (FEMA) flood mapping (FEMA 2021)
- Previous biological technical reports and wetland studies were reviewed: 13th Street Bridge Project. Natural Environment Study (Caltrans 2018); Final Initial Study/Mitigated Negative Declaration for the Ramona Intergenerational Community Campus Project (Dudek. 2017)

4.2 Field Survey Methods

Aquatic resources were delineated within the entire study area on April 2, 2021, by ESA biologists Brenda McMillan, Sonya Vargas, and Rosa Calvario. The results presented in this report are based on the field data collected in 2021. Field data were collected using a sub-meter-accuracy Bad Elf GPS unit. Linear feet were measured within the central-most polygon of each linear feature.

4.2.1 Waters of the U.S.

All potential waters of the U.S. were delineated to their jurisdictional limits as defined by 33 CFR 328.4 (Limits of Jurisdiction). Delineation of potential non-wetland waters of the U.S., as determined by the presence of an ordinary high water mark (OHWM), was based on 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* (Lichvar and McColley 2008).

Delineation of potential wetland waters of the U.S. used the "Routine Determination Method" as described in the 1987 *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987), hereafter called the "1987 Manual." The 1987 Manual was used in conjunction with the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0) (USACE 2008), hereafter called the "Arid West Supplement." For areas where the 1987 Manual and the Arid West Supplement differ, the Arid West Supplement was followed. Wetlands and waters were classified using commonly accepted habitat types. The Cowardin classification (Cowardin et al. 1979) of each feature type was also determined.

4.2.2 Waters of the State

Waters of the state regulated under CWA Section 401 were delineated using the same methodology as waters of the U.S. Waters of the state outside of CWA Section 401 jurisdiction and subject to Porter-Cologne Water Quality Control Act were delineated to also include outer portions of the flood extent beyond the OHWM. Within the study area, waters of the state under Porter-Cologne were considered congruent with CDFW jurisdiction. State wetlands were delineated pursuant to the State Wetland Procedures (SWRCB 2019). State wetlands are defined as areas where, under normal circumstances, (1) the continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation. Unlike federal wetlands, state wetlands require no connection to waters of the U.S. and areas lacking vegetation may still be considered wetlands where hydric soils and wetland hydrology is present.

4.2.3 Rivers, Streams, and Lakes

River, stream, and lake resources were delineated based on the presence of features that could meet CDFW's broadly applied interpretation of streams and lakes, including areas that exhibit regular and natural ponding and drainage features that exhibit a bed and bank. CDFW resources were also delineated to include streambanks up to the top of the bank (for natural channel banks), and associated wetlands and riparian vegetation to the outer dripline.

CHAPTER 5
Results

5.1 Aquatic Resources

Aquatic resources within the study area include Santa Maria Creek and its alluvial terrace, and a disturbed emergent wetland. Santa Maria Creek includes a vegetated channel, riverine habitat (southern cottonwood-willow riparian forest), as well as adjacent southern willow scrub on the southern floodplain. Santa Maria Creek runs east to west in the vicinity of the study area and is fed year-round (in varying degrees) by urban runoff and by precipitation/storm water runoff during the wet season. Conditions along Santa Maria Creek have not significantly changed since the 2017, 2018, and 2020 resource studies were conducted, and the 2021 studies did not find new or modified conditions at the time of the aquatic resources study (Dudek 2017, Caltrans 2018, AECOM 2020). The disturbed emergent wetland includes willows on the edges of the detention basin and a small patch of southern willow scrub on the northern boundary that is fed by the detention basin as it drains and flows under 13th Street via a small culvert pipe. The disturbed emergent wetland was identified in the previous studies. This wetland supports some vernal pool indicator species (i.e., water pygmyweed, grass poly and hairy clover fern) at the lowest elevation in the basin where water remains ponded; however, it does not function like a vernal pool as water ponds more frequently and for longer durations than a natural vernal pool and is therefore classified as a disturbed emergent wetland. This disturbed emergent wetland feature was created during the construction of the Ramona Public Library parking lot and is engineered to drain runoff off the impermeable parking lot surface and road. No listed or rare species were observed in emergent wetland. The disturbed emergent wetland was not mapped in the NWI database.

Biological and focused wetland surveys have been conducted on this site several times over the past decade. Initial findings were summarized in the Dudek 2017 Initial Study and the 2018 Caltrans Natural Environmental Study for the 13th Street Bridge Project and in the AECOM 2020 13th Street Bridge Aquatic Resource Delineation Report. The results of these studies did not find significant differences in the existing conditions from 2017 to 2020. These studies identified Santa Maria Creek as non-wetland waters and identified the disturbed emergent wetland in the southwestern corner of the proposed project as an emergent wetland and a FGC 1600 resource as well as two patches of southern willow scrub. Neither study found functioning vernal pool habitat in the middle of the site where vernal pools were historically mapped (AECOM 2020). During surveys, ESA Investigators found the area to be flat without noticeable basins or depressions and hydrophytic vegetation and hydrological indicators were absent during the aquatic resources study. The area was dominated by non-native species typically found in disturbed soils and upland habitats. In addition, the open pad had evidence of recent soil disturbances.

Sample point photographs are included in **Appendix C – Representative Photographs** and wetland and OHWM sample point data sheets are included in **Appendix D – Wetland Determination Datasheets**. The ORM Aquatic Resources Spreadsheet can be found in **Appendix E - ORM Aquatic Resources Spreadsheet**. Potential aquatic resources within the 15.59-acre survey area are described below by jurisdiction.

5.2 Potential Waters of the U.S.

5.2.1 Clean Water Act Analysis

The CWA § 328.3 defines waters of the U.S. to include territorial seas and traditional navigable waters; perennial and intermittent tributaries to territorial seas and traditional navigable waters; certain lakes, ponds, and impoundments; and wetlands adjacent to jurisdictional waters. Potential non-wetland waters of the U.S. within the study area include Santa Maria Creek, which is an intermittent stream that is a tributary to a navigable water (Pacific Ocean). Potential non-jurisdictional wetland includes a disturbed freshwater emergent wetland (W-1) that met all three of the USACE's wetland parameters; however, the emergent wetland feature is an isolated wetland and is therefore not considered a water of the U.S. per the SWANCC decision. The waters of the U.S. and non-jurisdictional wetland are shown in **Figure 7**, summarized in **Table 4**, and described below.

TABLE 4
AQUATIC RESOURCES WITHIN THE STUDY AREA

Aquatic Feature	Cowardin Type[1]	Dominant Vegetation/ Land Cover Type	OHWM (feet) (range from within study area)	Length (feet)	Acres	Coordinates
Waters						
Santa Maria Creek	R4SB	Southern Cottonwood-Willow Riparian Forest	11–14	465	0.178	33°02'37.55" 116°52'29.10"
Wetlands						
Disturbed Emergent Wetland	PEM	Disturbed Emergent Wetland	NA	—	0.314	33°02'29.08" 116°52'29.08"
Bio Swale	NA	Urban/Developed	NA	195	0.106	33°02'29"N 116°52'30"W
Culvert 1	NA	Southern Willow Scrub	NA	260	0.009	33°02'32"N 116°52'23"W
Total Wetlands					0.420	
Total Aquatic Features:					**0.607**	

NOTE

[1] Cowardin Type –R4SB = Riverine intermittent streambed; PEM = Palustrine emergent

SOURCE: ESA, 2021.

Paseo Norte Senior Affordable Housing Project

Figure 7

Potential Wetland Waters of the U.S. and other Wetlands

ESA

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Wetland Waters of the U.S.

No potential wetland waters of the U.S. were found within the project study area.

Non-Wetland Waters of the U.S.

Santa Maria Creek channel exhibits intermittent flows and an OHWM along the banks that support hydrophytic vegetation and riparian woodlands; therefore, it would be regulated as a USACE non-wetland water of the U.S. Santa Maria Creek passes through a 6-foot-diameter culvert under 13th Street and is regarded as a culverted water of the U.S. at this location.

All parts of Santa Maria Creek were considered potential waters of the U.S. features and were comprised of non-wetland waters within the OHWM of Santa Maria Creek, an NHD-mapped intermittent flow stream. Santa Maria Creek measured 14 feet wide at sample point OHWM. Santa Maria Creek includes a non-vegetated low-flow channel considered non-wetland waters of the U.S. The average OHWM width was 14 feet and had an average overall OHWM width of 11 feet within the study area. Substrate within the study area was sandy and OHWM indicators included sediment deposits, drift and debris, change in vegetation, and bank cutting. Santa Maria Creek supports 0.178 acre of potentially jurisdictional federal waters of the U.S (**Table 5**).

TABLE 5
WATERS OF THE U.S.

Aquatic Resource Type	Acres
Santa Maria Creek	0.178
Total	**0.178**

Potential Non-Jurisdictional Waters of the U.S.

Potential Non-Jurisdictional Wetlands

Freshwater Emergent Wetlands

Emergent wetlands consist of areas that are occasionally inundated by water and may support hydrophytic vegetation and can be natural or human-made. The emergent wetland within the study area is disturbed by non-native invasive species, which can alter hydrological functions and by soil disturbance, which degrades soil structure and leads to changes in physical, chemical and biological functions of the wetland. This feature occurs adjacent and to northwest of the Ramona Public Library parking lot and was designed to act as a detention basin to treat storm water runoff from the adjacent impermeable surfaces and to reduce the volume of storm water flows off the site and into Santa Maria Creek. This area supports ephemeral species such as water pygmyweed (*Crassula aquatic*; OBL), curly dock, tall flat-sedge (*Cyperus eragrostis*; FACW), and grass poly (OBL). Additional non-native plants including small flower tamarisk (*Tamarix* parviflora; FAC), short-pod mustard (UPL), and rip gut grass (*Bromus diandrus*; UPL) occur along the edge of this basin. This aquatic feature is considered a potentially non-jurisdictional wetland due to a lack of connection to Santa Maria Creek (a TNW) and is an isolated human-made feature.

Bio Swale

An engineered bio filtration swale (bio swale) within the 100-foot buffer area was found on the west side of the 13th Street between dirt driveways running north to south and includes a concrete culvert at the north end. It captures runoff from 13th Street and adjacent businesses and driveways. At the time of the site visit, the bio swale did not show evidence of water flows however it was apparent that it is intended to drain water away from Santa Maria Creek. It is expected that in years of adequate rainfall this feature would act to help drain water off 13th Street and into the bio swale. The swale is rock lined with deer grass and San Diego sedge planted along the bottom. There is no connection to Santa Maria Creek.

This aquatic feature is not considered a potential waters of the U.S. due to a lack of connection to Santa Maria Creek (a TNW) and is an isolated human-made feature.

Culvert 1

Culvert 1 is an inaccessible road drainage located off-site that runs parallel to the eastern boundary of the project at the end of 12th Street. The culvert drains road runoff from 12th Street and onto neighboring property following the fence line where it disappears into non-native grassland. It has a concrete apron off 12th Street and is approximately 260 feet long. The southern willow scrub dripline overhangs into the project onto a dirt access road. This patch of southern willow scrub is depicted on Figure 7 but is not rooted within the project site boundary and therefore only the dripline is included in the aquatic resources analysis. There is no connection to Santa Maria Creek and the culvert and willow trees are located off-site.

This aquatic feature is not considered a potential waters of the U.S. due to a lack of connection to Santa Maria Creek (a TNW) and is an isolated human-made feature.

Seasonal Wetlands

The freshwater disturbed emergent wetland within the proposed project boundary supports emergent vegetation characterized by herbaceous hydrophytic vegetation such as curly dock grass poly and non-native grasses. These areas were presumed to support hydric soils despite lacking hydric soil indicators due to their historic deposition and the presence of hydrophytic vegetation and wetland hydrology.

Vernal pools and vernal pool complexes are known to occur throughout the Ramona area and are known to occur in the vicinity of the study area. Several depressions in the proposed project footprint have historically been identified as "*potential vernal pools*" with most being located on a disturbed graded pad in the center of the study area. However, after focused vernal pool surveys, these shallow depressions did not meet the criteria for a vernal pool classification in previous studies and based on currently existing conditions, were absent during the 2021 aquatic resource study. No listed, rare, or vernal pool indicator plants have been found to occupy the shallow depressions previously mapped on the raised and graded pad (Dudek 2017; AECOM 2020). Additionally, this area lacked evidence of shallow depressions in 2021. This area lacked the presence of hydrophytic vegetation and wetland hydrology indicators and hydric soils were assumed to be absent due to the disturbed nature of the soils.

Four wetland determination data points were sampled and are discussed below. An area meeting the USACE's three-parameter wetland definition was identified within the survey area. Wetland Determination Data Forms (Arid West Region) were completed for 4 sample points within the survey area (**Appendix D**). Potential federal wetland classified as a palustrine system are present in the form of disturbed freshwater emergent wetland within the survey area. Sample Points 1 and 4 are located within potential federal wetlands and indicators of all three wetland parameters are described in detail below. Sample Point 2 met two of the three wetland parameters with hydrophytic vegetation and hydrology present but lacked hydric soils. Sample Point 3 supports hydric soil indicators but lacks hydrophytic vegetation and hydrology indicators. See **Appendix D** for the corresponding Wetland Determination Datasheets.

Sample Point 1 (Soil Pit, SP1)

This sample point was located along 13th Street in a manmade stormwater drainage basin where hydrological indicators and hydrophytic vegetation were present. The stormwater detention basin was engineered to trap water and runoff from the library parking lot and 13th Street, keeping it away from Santa Maria Creek. Vegetation in the sample plot was dominated by grass poly (OBL), water pygmyweed (OBL) and curly dock (FAC) and met the USACE's criteria for presence of hydrophytic vegetation. At the lowest point in elevation the stormwater detention basin water remains ponded after flows have exited through a culvert. This area of the disturbed emergent wetland supports hairy cloverfern (OBL); grass poly (OBL), pale spike-rush (*Eleocharis macrostachya*; OBL), water pygmyweed (OBL) and Mexican speedwell (FAC). Soils located at SP1 consist of Placentia sandy loam, which is listed as hydric soils in San Diego County and met the criteria to be classified as hydric soil due to the presence of redox depressions and landscape position. Historic and current land uses have disturbed the soils and include but are not limited to asphalt pieces, concrete chunks, degraded and buried silt fence material, and imported topsoil and rock, which has altered the general soil profile. Wetland hydrology indicators observed include inundation (B7) and saturation (C9) visible on aerial imagery, biotic crust (B12) drainage patterns (B10), and data and results from previous inspections; therefore, it met the USACE's wetland hydrology criteria. The sample met the USACE's hydrophytic vegetation, hydrology criteria and hydric soils and is considered an ephemeral wetland. This feature lacks a connection to Santa Maria Creek. See **Appendix D** for the corresponding Wetland Determination Datasheet.

SP4

This sample point was located along 13th Street in a shallow concave depression located behind a berm on the northside of the disturbed emergent wetland on the edge of the culvert outflow area associated with W1 (SP1). This area (SP1) supports hydrological indicators and hydrophytic vegetation. This area was assumed to have been created as part of the detention basin and is considered in this analysis as part of the disturbed emergent wetland (W1). Vegetation in the sample plot was dominated by arroyo willow (FACW) and mugwort (FAC) with by curly dock (FAC), grass poly, slender wild oat (UPL) and rabbit's foot grass (*Polypogon monspeliensis* FACW) and met the USACE's criteria for presence of hydrophytic vegetation. Previous studies have indicated that the willows were planted when the detention basin was created (AECOM 2020). Soils located at SP4 consist of Placentia sandy loam, which is listed as hydric soils in San Diego County with the soil sample confirming the USACE's hydric soil indicators. Wetland

hydrology indicators observed include sediment deposits (B2), drift deposits (B3), water-stained leaves (B9), and drainage patterns (B10) and therefore, met the USACE's wetland hydrology criteria. The drainage patterns observed in the field indicate that flows through this feature exit east away from 13th Street. The low point in this feature did not exhibit evidence of scouring or ponding and lacks a connection to Santa Maria Creek. The sample meets the USACE's hydrophytic vegetation, hydrology criteria, and hydric soil criteria and is considered to be a wetland. See **Appendix D** for the corresponding Wetland Determination Datasheet.

This aquatic feature is not considered a potential jurisdictional wetland.

A paired upland point was not sampled adjacent to SP1 and SP4 because upland conditions did not exhibit significant changes since the previous studies were conducted and therefore, existing upland conditions were considered unchanged. See Figure 4 for Natural Communities Land Covers.

5.3 Potential Waters of the State

Waters of the state subject to CWA Section 401 are summarized in **Table 6** below and depicted in **Figure 8**. All waters of the U.S. described in **Table 4** above fall within the CWA Section 401 authority of the RWQCB and are considered waters of the state. Features considered to be potential non-jurisdictional waters of the U.S. are presumed to be waters of the state subject to RWQCB authority under the Porter-Cologne Water Quality Control Act. All wetland features that met all three of the wetland parameters were considered state wetlands. Potential waters of the state described above include features associated with Santa Maria Creek, the disturbed emergent wetland, the bio swale, and Culvert 1. Culvert 1 and the associated small patch of southern willow scrub is found outside of the eastern boundary of the study area on private property with the tree dripline reaching into the study area.

TABLE 6
WETLANDS AND WATERS OF THE STATE

Aquatic Resource Type	Acres
Santa Maria Creek	0.178
Disturbed Emergent Wetland	0.314
Bio Swale	0.106
Culvert 1	0.009
Total	**0.607**

Path: U:\GIS\GIS\Projects\15xxxx\D150334 07 Ramona RICC\03 MXDs Projects\JD-ARDR.aprx sgeissler 7/12/2022

SOURCE: ESA, 2021.

Paseo Norte Senior Affordable Housing Project

Figure 8

Potential Waters of the State and State Wetlands

ESA

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5.4 Potential FGC 1600 Resources

Resources potentially subject to regulation under FGC Section 1600 are summarized in **Table 7** and shown in **Figure 9**. Potential CDFW resources include all waters of the state described above associated with Santa Maria Creek, associated riparian vegetation, the disturbed emergent wetland, the bio swale, and Culvert 1. This patch of southern willow scrub is depicted on Figure 9 but is not located within the study area and therefore only the dripline is included in the aquatic resources analysis.

TABLE 7
POTENTIAL FGC 1600 RESOURCES WITHIN THE STUDY AREA

Vegetation Community/Land Cover Type	Acres	Length (feet)
Southern Cottonwood-Willow Riparian Forest	0.178	465
Southern Willow Scrub	2.917	N/A
Disturbed Emergent Wetland	0.314	N/A
Bio-swale	0.106	195
Culvert 1	0.009	260
Totals:	**3.538**	**920**

NOTE:

[1] Include each Cowardin classification

5.5 Conclusions

This report documents the aquatic resources boundary delineation and best professional judgment of ESA investigators. All conclusions presented should be considered preliminary and subject to change pending official review and a jurisdictional determination in writing by the USACE and/or State. All aquatic resources and extent of jurisdictional boundaries identified in this report are considered preliminary pending verification from the appropriate regulatory agencies. This aquatic resource study found three potentially jurisdictional aquatic resources within the study area for the proposed Paseo Norte Senior Affordable Housing Project. The aquatic resources within the 15.59-acre study area were associated with Santa Maria Creek, an intermittent flow stream (R4SB, Riverine), and palustrine emergent (disturbed emergent wetland) wetlands.

Regulated activities affecting jurisdictional aquatic resources may require regulatory agency notifications and/or approvals. While the extent of aquatic resources and interpretation of regulated activities is determined by the regulatory agencies, the information provided as a discussion of the survey results and to inform project permitting based on the delineation results within the proposed project design.

Sample point photographs are included in **Appendix C** and wetland and OHWM sample point data sheets are included in **Appendix D**.

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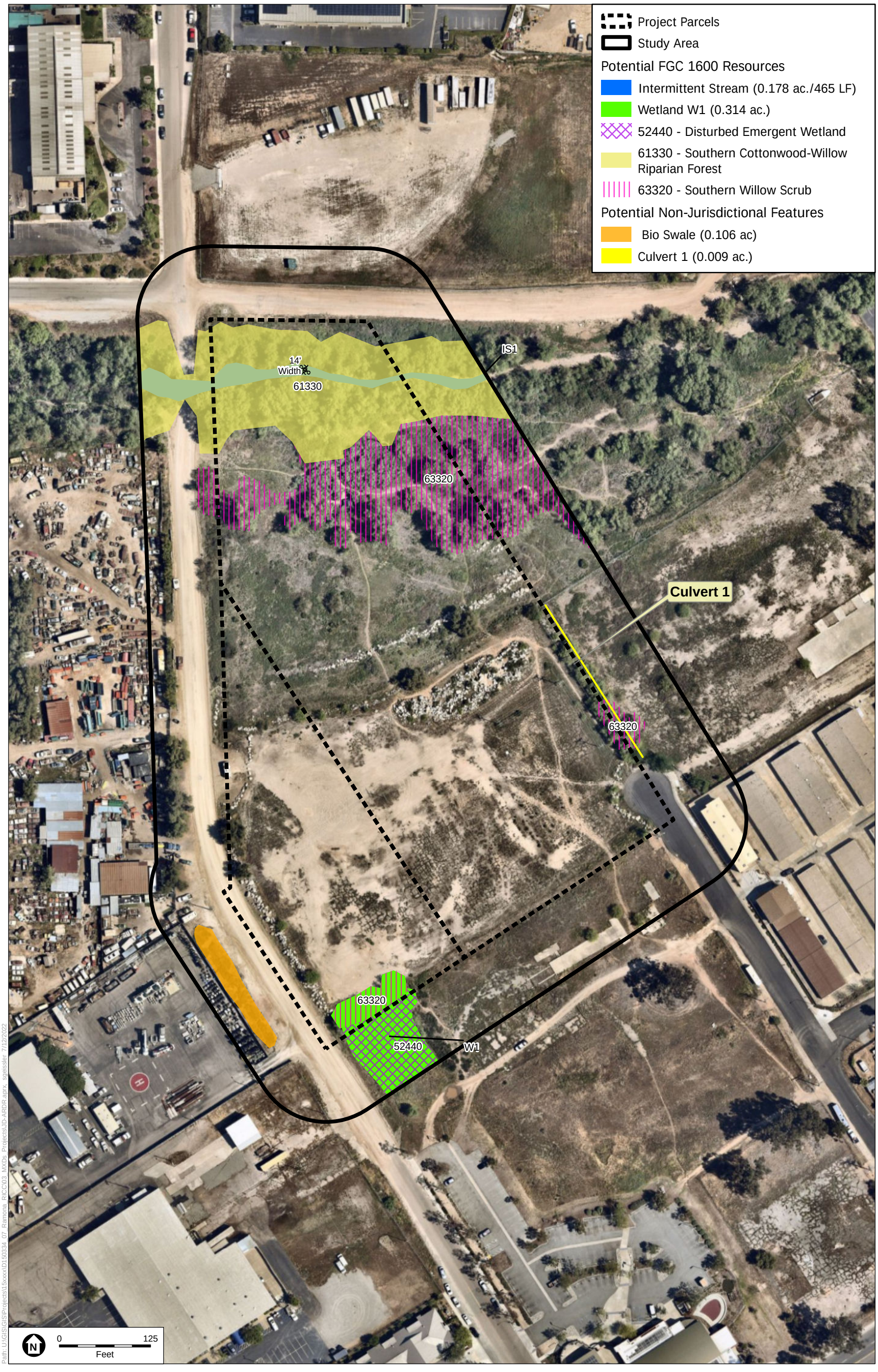

SOURCE: ESA, 2021.

Paseo Norte Senior Affordable Housing Project

Figure 9

Potential FGC 1600 Resources

ESA

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CHAPTER 6
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Appendix A
Floral Compendium

APPENDIX A: FLORAL COMPENDIUM

FERNS

Scientific Name	Common Name
Marsileaceae	**Water-clover Family**
Marsilea vestita ssp. *vestita*	hairy clover fern

EUDICOTS

Scientific Name	Common Name
Amaranthaceae	**Amaranth Family**
* *Amaranthus albus*	white tumbleweed
Anacardiaceae	**Sumac Family**
* *Schinus molle*	Peruvian pepper tree
Apiaceae	**Carrot Family**
* *Conium maculatum*	poison hemlock
* *Foeniculum vulgare*	sweet fennel
Asteraceae	**Aster Family**
Ambrosia psilostachya	western ragweed
Artemisia douglasiana	mugwort
Baccharis pilularis	coyotebrush
Baccharis salicifolia ssp. *salicifolia*	mule fat
Baccharis sarothroides	broom baccharis
* *Carduus pycnocephalus* ssp. *pycnocephalus*	Italian thistle
* *Centaurea melitensis*	tocalote/
Centromadia parryi ssp. *australis*	southern tarplant
* *Erigeron bonariensis*	flaxleaved fleabane
* *Cynara cardunculus ssp. flavescens*	artichoke thistle, cardoon
Deinandra fasciculata	fascicled tarplant
* *Dittrichia graveolens*	stinkwort
Gnaphalium palustre	lowland cudweed
* *Hedypnois cretica*	crete weed
Heterotheca grandiflora	telegraphweed
* *Hypochaeris glabra*	smooth cat's ear
Isocoma menziesii	goldenbush
* *Lactuca serriola*	prickly lettuce
* *Logfia gallica*	narrowleaf cottonrose
* *Matricaria discoidea*	pineapple weed
* *Oncosiphon piluliferum*	stinknet
Pseudognaphalium californicum	California everlasting
* *Silybum marianum*	blessed milkthistle
* *Sonchus asper* ssp. *asper*	spiny sowthistle

FERNS

	Scientific Name	Common Name
	Stephanomeria virgata	wreath-plant
	Xanthium strumarium	cocklebur
	Bignoniaceae	**Bigninia Family**
*	*Tecoma capensis*	cape honeysuckle
	Boraginaceae	**Borage Family**
	Amsinckia intermedia	rancher's fiddleneck
	Pectocarya linearis ssp. *ferocula*	slender combseed
	Plagiobothrys nothofulvus	rusty popcornflower
	Brassicaceae	**Mustard Family**
*	*Lepidium didymum*	lesser swine cress
*	*Hirschfeldia incana*	shortpod mustard
*	*Raphanus sativus*	wild radish
*	*Sisymbrium altissimum*	tall tumblemustard
	Caryophyllaceae	**Pink Family**
*	*Spergularia bocconii*	Boccone's sandspurry
	Crassulaceae	**Stonecrop Family**
	Crassula aquatica	water pygmyweed
	Crassula connata	sand pygmyweed
	Euphorbiaceae	**Spurge Family**
	Croton setiger	dove weed
	Fabaceae	**Legume Family**
	Acmispon americanus spp*. americanus* .	Spanish clover
*	*Lathyrus latifolius*	perennial pea
*	*Medicago polymorpha*	bur clover
*	*Medicago sativa*	alfalfa
*	*Parkinsonia aculeata*	Mexican palo verde
*	*Robinia pseudoacacia*	black locust
*	*Vicia villosa*	hairy vetch
	Geraniaceae	**Geranium Family**
*	*Erodium botrys*	longbeak stork's bill
	Erodium brachycarpum	Short-beak stork's bill
*	*Erodium cicutarium*	redstem filaree
*	*Erodium moschatum*	white-stem stork's bill
	Hydrophyllaceae	**Waterleaf Family**
	Phacelia ramosissima	branching phacelia
	Lamiaceae	**Mint Family**
*	*Marrubium vulgare*	horehound
	Lythraceae	**Loosestrife Family**
*	*Lythrum hyssopifolia*	grass poly

FERNS

	Scientific Name	Common Name
Malvaceae		**Mallow Family**
*	*Malva parviflora*	cheeseweed
Myrsinaceae		**Myrsine Family**
*	*Lysimachia arvensis*	scarlet pimpernel
Onagraceae		**Evening Primrose Family**
	Camissonia strigulosa	Sandy soil suncup
	Epilobium ciliatum	willowherb
	Oenothera elata	evening primrose
Polygonaceae		**Buckwheat Family**
	Eriogonum fasciculatum	California buckwheat
*	*Rumex crispus*	curly dock
Montiaceae		**Purslane Family**
	Calandrinia menziesii	red maids
Salicaceae		**Willow Family**
	Populus fremontii ssp. *fremontii*	western cottonwood
	Salix exigua	sandbar willow
	Salix gooddingii	black willow
	Salix laevigata	red willow
	Salix lasiolepis	Arroyo willow
Scrophulariaceae		**Figwort Family**
	Veronica peregrina ssp. xalapensis	Mexican speedwell
Solanaceae		**Nightshade Family**
*	*Nicotiana glauca*	tree tobacco
Tamaricaceae		**Tamarix Family**
*	*Tamarix parviflora*	small-flower tamarisk
Urticaceae		**Nettle Family**
	Urtica dioica	stinging nettle
*	*Urtica urens*	dwarf nettle
Zygophyllaceae		**Caltrop Family**
*	*Tribulus terrestris*	puncture vine

MONOCOTYLEDONS

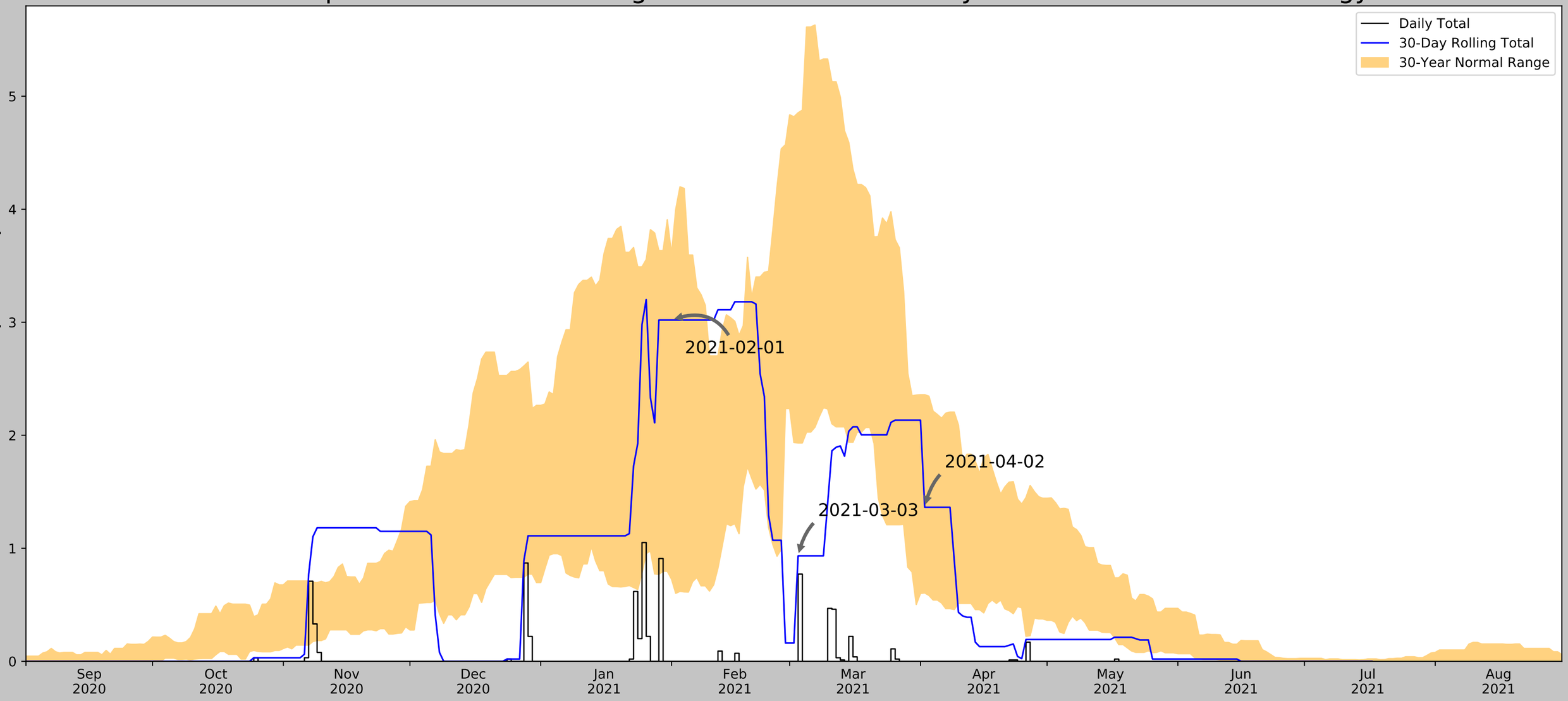
	Scientific Name	Common Name
Arecaceae		**Palm Family**
*	*Phoenix canariensis*	Canary Island date palm

FERNS

	Scientific Name	Common Name
	Cyperaceae	**Sedge Family**
	Carex praegracilis	clustered field sedge
	Carex spissa	San Diego sedge
	Cyperus eragrostis	tall flat-sedge
	Eleocharis macrostachya	pale spike-rush
	Juncaceae	**Rush Family**
	Juncus bufonius	toad rush
	Juncus mexicanus	Mexican rush
	Poaceae	**Grass Family**
*	*Avena barbata*	slender wild oat
*	*Bromus diandrus*	ripgut grass
*	*Bromus hordeaceus*	soft chess
*	*Bromus rubens*	red brome
*	*Cynodon dactylon*	Bermuda grass
	Distichlis spicata	saltgrass
	Elymus glaucus	blue wildrye
	Hordeum marinum	seaside barley
*	*Hordeum murinum ssp. leporinum*	barley
*	*Lamarckia aurea*	goldentop
*	*Stipa miliacea* var. *miliacea*	smilo grass
*	*Poa annua*	annual bluegrass
*	*Schismus barbatus*	Mediterranean schismus
*	*Festuca myuros*	rattail sixweeks grass

Appendix B
APT Outputs

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



Coordinates	33.0411231847, -116.874328582
Observation Date	2021-04-02
Elevation (ft)	1417.88
Drought Index (PDSI)	Extreme drought
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
2021-04-02	0.605118	2.359055	1.362205	Normal	2	3	6
2021-03-03	1.932284	4.853543	0.933071	Dry	1	2	2
2021-02-01	0.726772	3.606299	3.019685	Normal	2	1	2
Result							Normal Conditions - 10

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)
RAMONA AP	33.0375, -116.9158	1393.045	2.415	24.835	1.147	8147	90
RAMONA FIRE DEPT	33.0114, -116.9081	1470.144	2.836	52.264	1.425	2905	0
SAN DIEGO COUNTRY ESTATES 1.5	33.0158, -116.8068	1474.081	4.285	56.201	2.169	10	0
POWAY 3.2NE	32.9956, -117.0044	1206.037	8.166	211.843	5.404	3	0
ESCONDIDO 5.2NNW	33.1852, -117.1282	1474.081	17.747	56.201	8.984	1	0
ALPINE	32.8358, -116.7775	1694.882	15.257	277.002	11.092	287	0

Antecedent Precipitation Tool v.1.0 - Watershed Sampling Summary

Generated on 2021-07-19

User Inputs

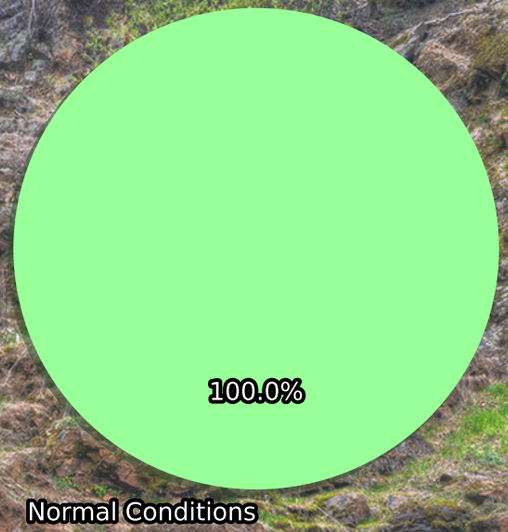
Coordinates	33.041123, -116.874329
Date	2021-04-02
Geographic Scope	HUC12

Intermediate Data

Hydrologic Unit Code	180703040203
Watershed Size	45.92 mi^2
# Random Sampling Points	5

Preliminary Result

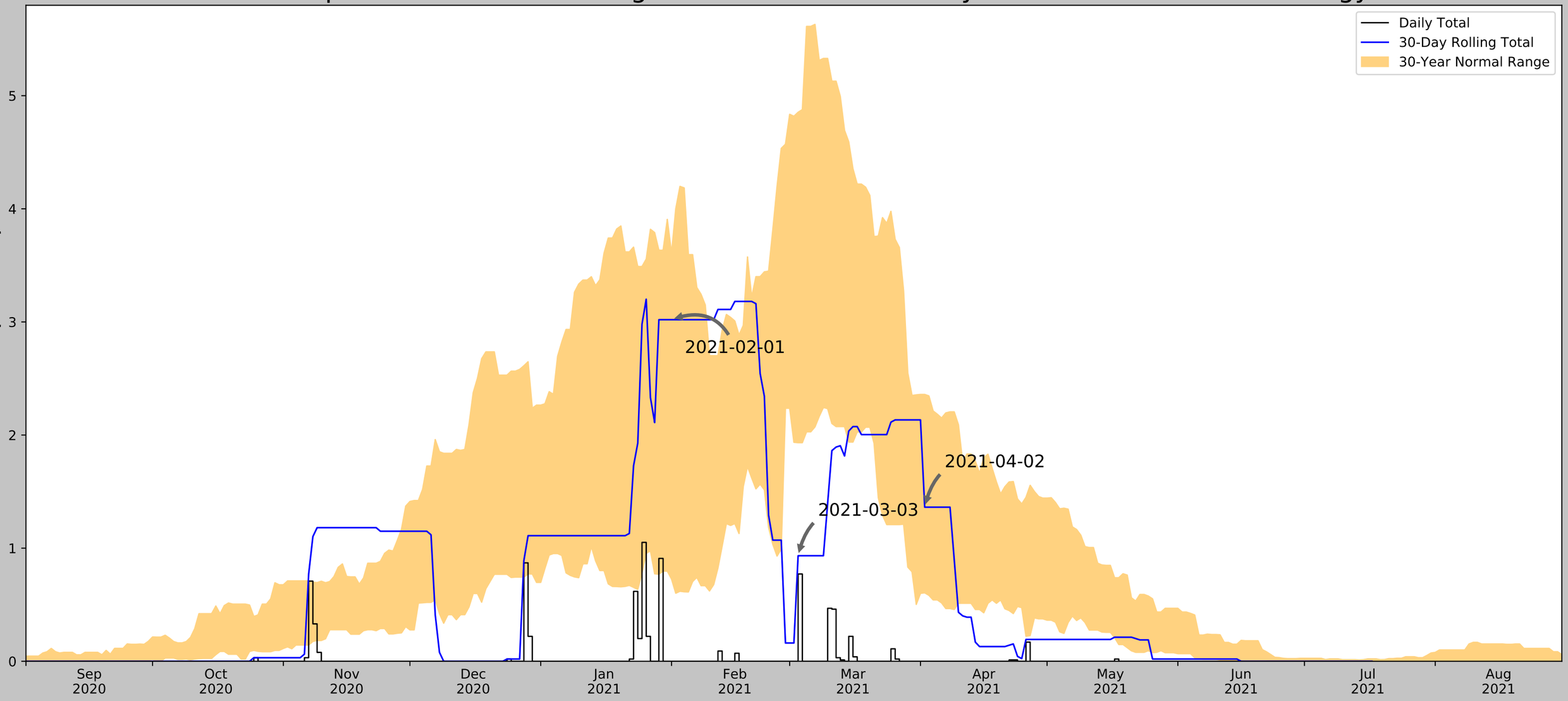
Average Antecedent Precipitation Score	10.6
Preliminary Determination	Normal Conditions



Sampling Point Breakdown

Antecedent Precipitation Score	Antecedent Precipitation Condition	WebWIMP H_2O Balance	Drought Index (PDSI)	# of Points
13	Normal Conditions	Dry Season	Extreme drought	1
10	Normal Conditions	Dry Season	Extreme drought	4

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



Coordinates	33.0411231847, -116.874328582
Observation Date	2021-04-02
Elevation (ft)	1417.88
Drought Index (PDSI)	Extreme drought
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
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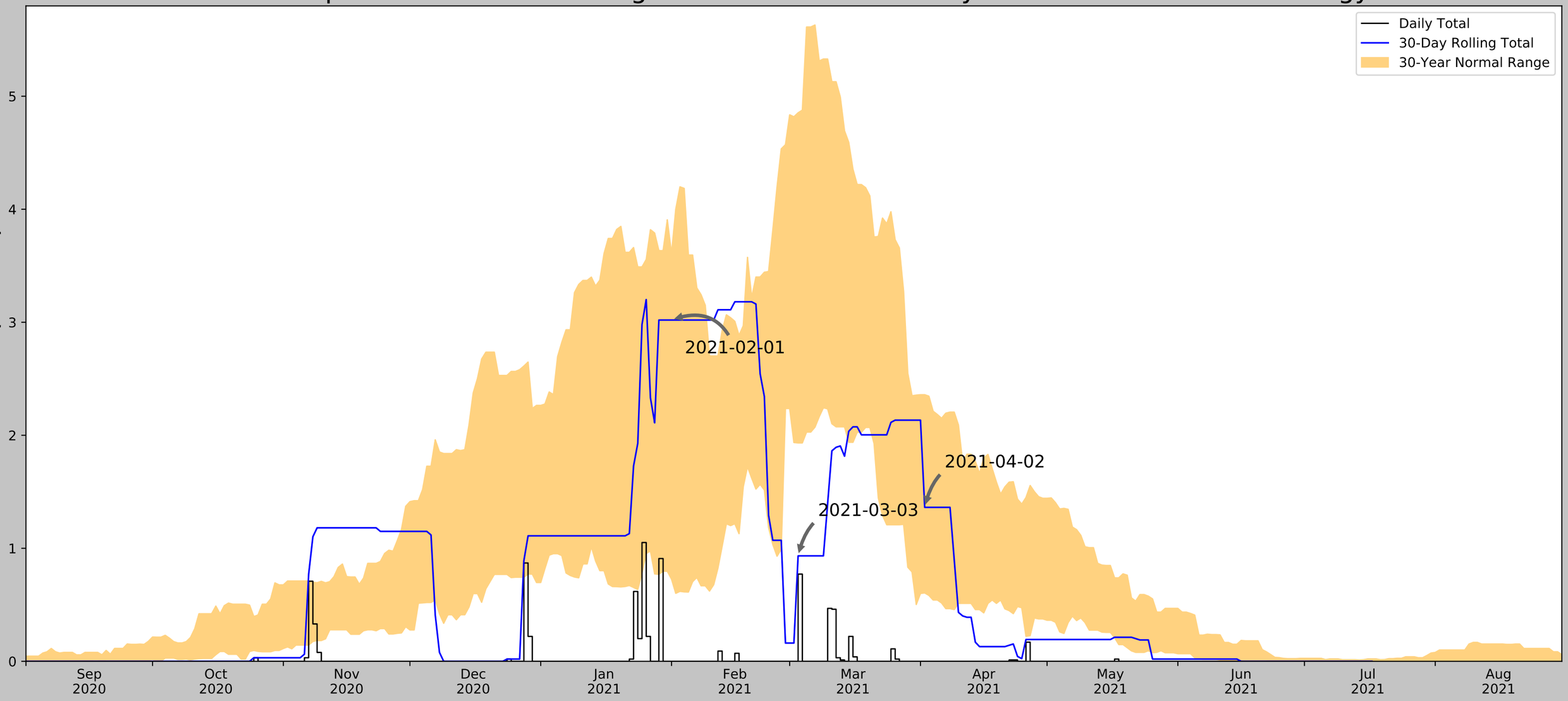
2021-03-03	1.932284	4.853543	0.933071	Dry	1	2	2
2021-02-01	0.726772	3.606299	3.019685	Normal	2	1	2
Result							Normal Conditions - 10

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)
RAMONA AP	33.0375, -116.9158	1393.045	2.415	24.835	1.147	8147	90
RAMONA FIRE DEPT	33.0114, -116.9081	1470.144	2.836	52.264	1.424	2905	0
SAN DIEGO COUNTRY ESTATES 1.5	33.0158, -116.8068	1474.081	4.285	56.201	2.169	10	0
POWAY 3.2NE	32.9956, -117.0044	1206.037	8.166	211.843	5.405	3	0
ESCONDIDO 5.2NNW	33.1852, -117.1282	1474.081	17.747	56.201	8.984	1	0
ALPINE	32.8358, -116.7775	1694.882	15.257	277.002	11.092	287	0

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



Coordinates	33.068664, -116.757539
Observation Date	2021-04-02
Elevation (ft)	1417.88
Drought Index (PDSI)	Extreme drought
WebWIMP H_2O Balance	Dry Season

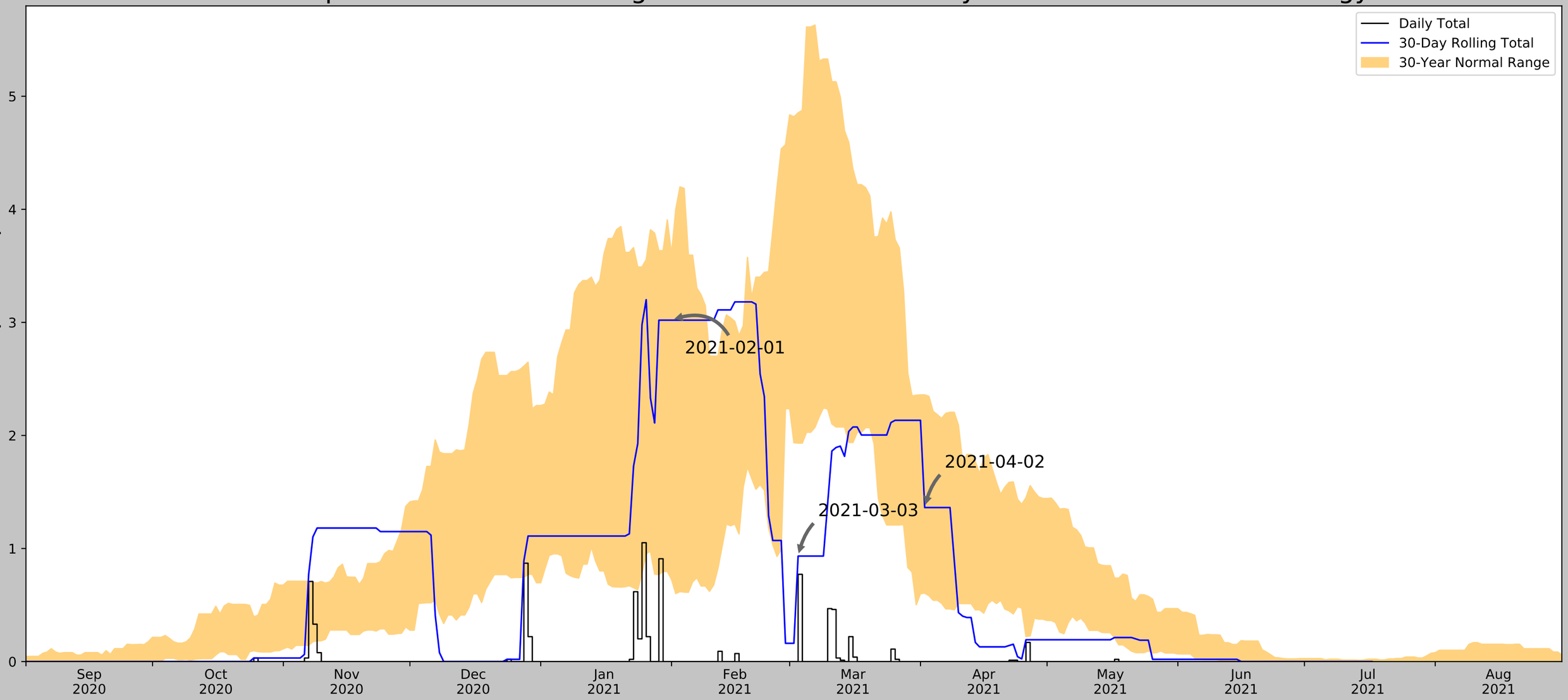
30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2021-04-02	0.605118	2.359055	1.362205	Normal	2	3	6
2021-03-03	1.932284	4.853543	0.933071	Dry	1	2	2
2021-02-01	0.726772	3.606299	3.019685	Normal	2	1	2
Result							Normal Conditions - 10

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)
RAMONA AP	33.0375, -116.9158	1393.045	9.415	24.835	4.471	8147	90
SAN DIEGO COUNTRY ESTATES 1.5	33.0158, -116.8068	1474.081	4.635	56.201	2.346	10	0
RAMONA FIRE DEPT	33.0114, -116.9081	1470.144	9.576	52.264	4.81	2905	0
POWAY 3.2NE	32.9956, -117.0044	1206.037	15.164	211.843	10.036	3	0
ESCONDIDO 5.2NNW	33.1852, -117.1282	1474.081	22.909	56.201	11.597	1	0
ALPINE	32.8358, -116.7775	1694.882	16.131	277.002	11.727	287	0

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



Coordinates	33.030348, -116.87621
Observation Date	2021-04-02
Elevation (ft)	1422.35
Drought Index (PDSI)	Extreme drought
WebWIMP H_2O Balance	Dry Season

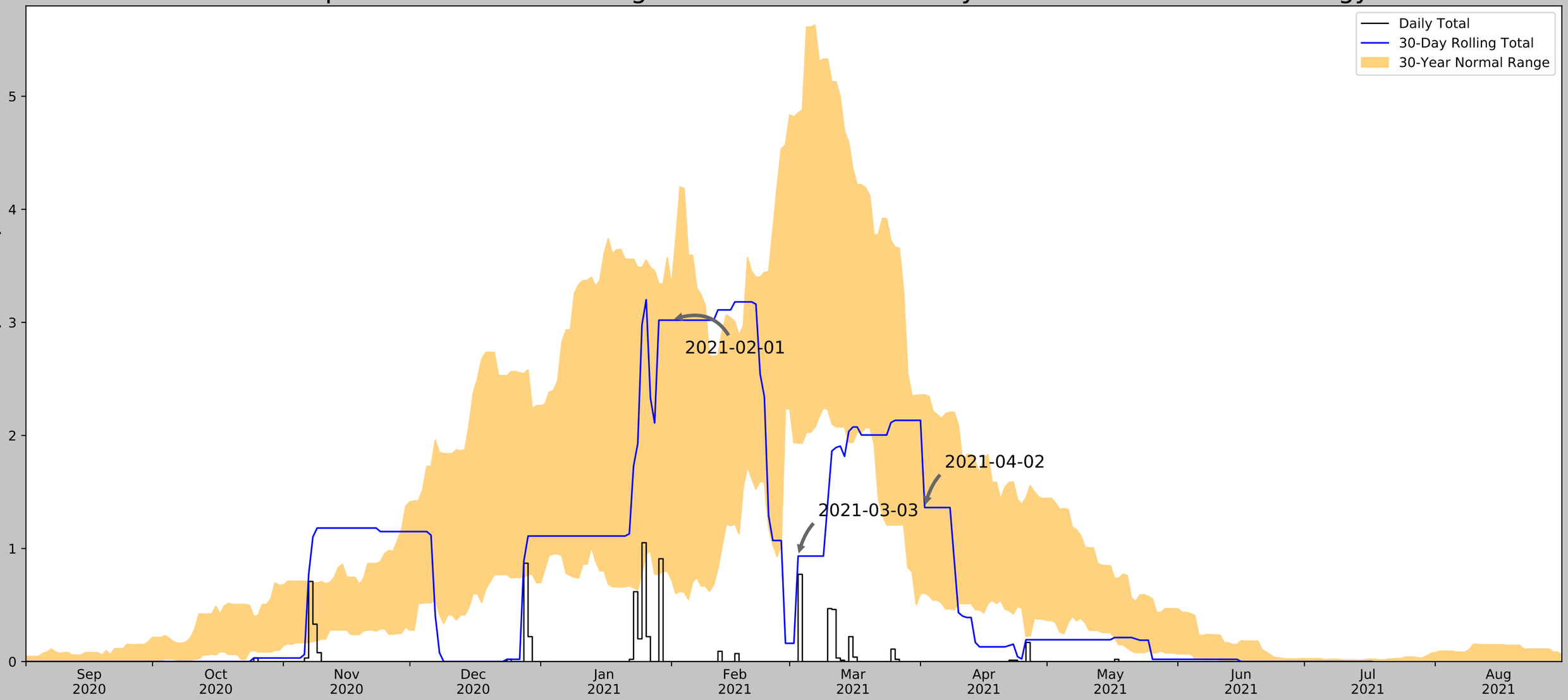
30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2021-04-02	0.605118	2.359055	1.362205	Normal	2	3	6
2021-03-03	1.932284	4.853543	0.933071	Dry	1	2	2
2021-02-01	0.726772	3.606299	3.019685	Normal	2	1	2
Result							Normal Conditions - 10

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)
RAMONA AP	33.0375, -116.9158	1393.045	2.346	29.305	1.124	8147	90
RAMONA FIRE DEPT	33.0114, -116.9081	1470.144	2.264	47.794	1.127	2905	0
SAN DIEGO COUNTRY ESTATES 1.5	33.0158, -116.8068	1474.081	4.145	51.731	2.08	10	0
POWAY 3.2NE	32.9956, -117.0044	1206.037	7.805	216.313	5.201	3	0
ESCONDIDO 5.2NNW	33.1852, -117.1282	1474.081	18.088	51.731	9.075	1	0
ALPINE	32.8358, -116.7775	1694.882	14.61	272.532	10.556	287	0

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



Coordinates	33.014294, -116.942753
Observation Date	2021-04-02
Elevation (ft)	1625.13
Drought Index (PDSI)	Extreme drought
WebWIMP H_2O Balance	Dry Season

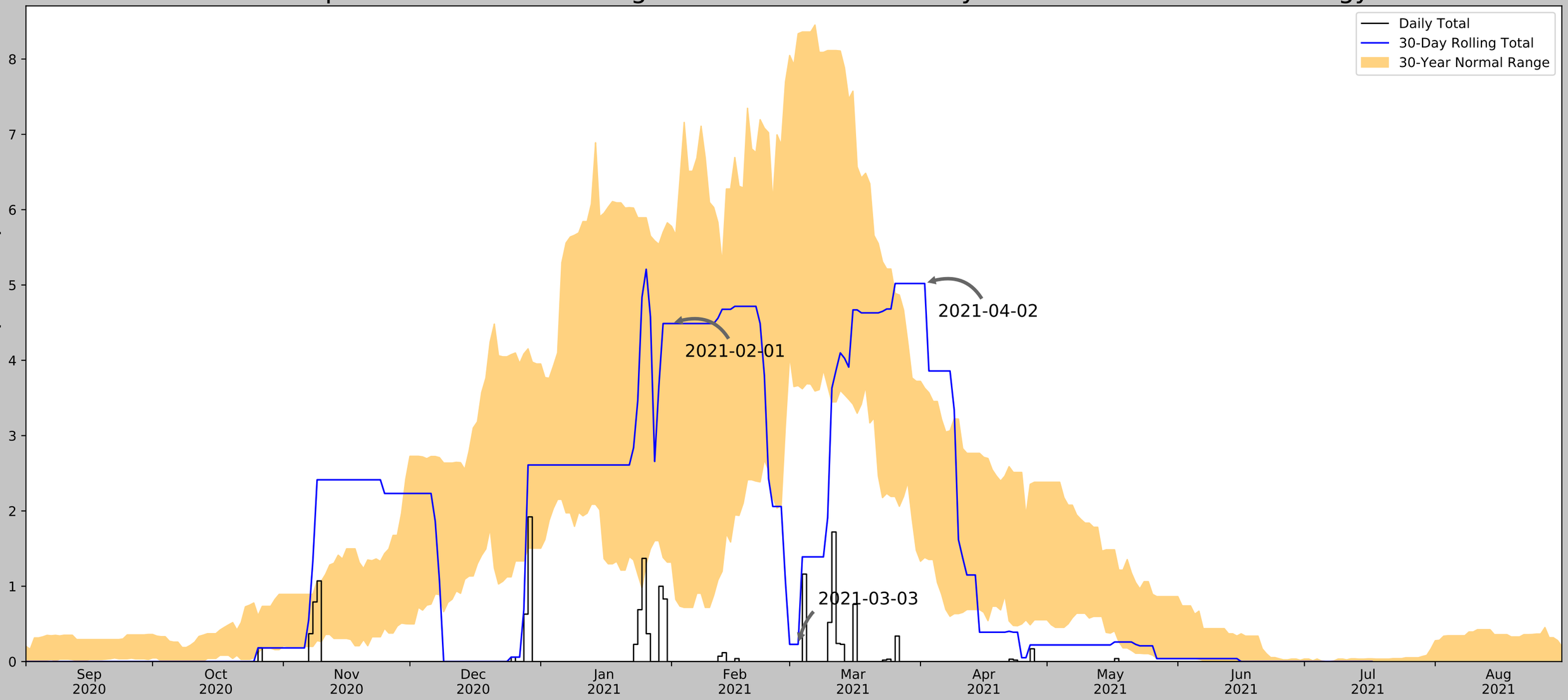
30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2021-04-02	0.605118	2.359055	1.362205	Normal	2	3	6
2021-03-03	1.932284	4.853543	0.933071	Dry	1	2	2
2021-02-01	0.726772	3.329134	3.019685	Normal	2	1	2
Result							Normal Conditions - 10

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)
RAMONA AP	33.0375, -116.9158	1393.045	2.238	232.085	1.527	8147	90
RAMONA FIRE DEPT	33.0114, -116.9081	1470.144	2.018	154.986	1.221	2905	0
ESCONDIDO 7.2 SE	33.0563, -116.9925	1584.974	4.09	40.156	2.005	1	0
POWAY 3.2NE	32.9956, -117.0044	1206.037	3.798	419.093	3.301	12	0
POWAY VALLEY	33.0194, -117.0308	647.966	5.113	977.164	7.297	257	0
ALPINE	32.8358, -116.7775	1694.882	15.619	69.752	8.118	31	0

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



Coordinates	33.103432, -116.812176
Observation Date	2021-04-02
Elevation (ft)	2485.3
Drought Index (PDSI)	Extreme drought
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
2021-04-02	1.382677	3.630315	5.019685	Wet	3	3	9
2021-03-03	3.664961	8.336221	0.228346	Dry	1	2	2
2021-02-01	1.319291	5.779134	4.488189	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)
HENSHAW DAM	33.2372, -116.7614	2700.131	9.698	214.831	6.448	11208	90
RAMONA 3.8 ENE	33.0562, -116.8088	2018.045	3.269	467.255	2.999	1	0
RAMONA 3ENE	33.0507, -116.8278	2034.121	3.754	451.179	3.383	6	0
SAN DIEGO COUNTRY ESTATES 1.5	33.0158, -116.8068	1474.081	6.063	1011.219	8.859	15	0
RAMONA AP	33.0375, -116.9158	1393.045	7.533	1092.255	11.618	61	0
RAMONA FIRE DEPT	33.0114, -116.9081	1470.144	8.443	1015.156	12.37	62	0

Appendix C

Representative Site Photographs

PHOTOGRAPH 1: View of Santa Maria Creek, Southern Cottonwood-Willow Riparian Forest (looking east).

PHOTOGRAPH 2: View of disturbed emergent wetland and vernal pool in the foreground with southern willow scrub in the background (looking north) within the southwestern portion of the study area.

PHOTOGRAPH 3: View of Southern Willow Scrub (looking north) within the northern portion of the study area.

PHOTOGRAPH 4: View of non-native grassland: broadleafed-dominated in the foreground with southern willow scrub (looking northeast) from the middle portion of the study area.

D150334.07

SOURCE: ESA, 2021

Ramona Intergenerational Community Campus Affordable Housing Project

Appendix C
Site Photographs

ESA

Appendix D

Wetland Determination Datasheets

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Ramona RICC | City/County: Ramona | Sampling Date: 4/2/2021
Applicant/Owner: SD County DGS | State: California | Sampling Point: 1
Investigator(s): Brenda McMillan | Section, Township, Range: 32.2.22N 116.52.27W, Elevation 1,413ft
Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave | Slope (%): 0
Subregion (LRR): LRR-C | Lat: 33.0411231847 | Long: -116.874328582 | Datum: - WGS84
Soil Map Unit Name: Placentia sandy loam 2-9% | NWI classification: Wetland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation yes Soil no or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation no Soil yes or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____
Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:
Soils not found to be native. Detention basin. Ephemeral wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 20 ft/radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Tamarix parviflora	1	no	FAC
2.	0		
3.	0		
4.	0		
	1	= Total Cover	
Sapling/Shrub Stratum (Plot size: 10 ft/radius)			
1.	0		
2.	0		
3.	0		
4.	0		
5.	0		
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft/radius)			
1. Crassula aquatica	10	yes	OBL
2. Lythrum hyssopifolium	15	yes	OBL
3. Rumex crispus	10	yes	FAC
4. Veronica peregrina	1	no	FAC
5. Epilobium ciliatum	1	no	FACW
6. Cyperus eragrostis	1	no	FACW
7. Hordeum marinum	1	no	FAC
8. Sonchus asper	1	no	FAC
9. Vulpia myuros	5	no	FACU
10.			
11.			
	45	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft/radius)			
1.	0		
2.	0		
	0	= Total Cover	

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1=	25
FACW species	2	x 2=	4
FAC species	0	x 3=	0
FACU species	5	x 4=	0
UPL species	0	x 5=	
Column Totals:	32 (A)		49 (B)

Prevalence Index = B/A = 1.53

Hydrophytic Vegetation Indicators:
yes Dominance Test is >50%
yes Prevalence Index is ≤3.0[1]
no Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
no Problematic Hydrophytic Vegetation[1](Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 2	10YR 3/2	70	10YR 3/2	30	CS	M	Sandy loam	Uniform soil color
2 - 12	7.5YR 3/4	97	5YR 3/4	3	RM	M	Sandy loam	LG stonesize asphalt
12 - 18	7.5YR 3/4	70	7.5YR 3/4	30	CS	M	Sandy loam	
0 - 0		0		0				
0 - 0		0		0				
0 - 0		0		0				
0 - 0		0		0				
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- X Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- X Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth (inches): 0

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

Found chipped asphalt in soil, and didn't see difference in color so only dug to the depth we did. Soil has some redox deletions but matrix doesn't have low chroma.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- X Inundation Visible on Aerial Imagery(B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- X Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? no Depth (Inches): 0

Water Table Present? no Depth (Inches): 0

Saturation Present? no Depth (Inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ✓ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Aerial photos and previous inspections; WD 2012 TAIC; Dudek 2017; AECOM 2020.

Remarks:

Man made engineered detention basin.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Ramona RICC | City/County: Ramona | Sampling Date: 4/2/2021
Applicant/Owner: SD County DGS | State: California | Sampling Point: 2
Investigator(s): Brenda McMillan | Section, Township, Range: 32.2.22N 116.52.27W, Elevation 1,413ft
Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): 0
Subregion (LRR): LRR-C | Lat: 33.0429554989 | Long: -116.875122537 | Datum: - WGS84
Soil Map Unit Name: Fallbrook Sandy loam | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation yes Soil no or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation no Soil no or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ____ No ✓
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ____ No ✓
Is the Sampled Area within a Wetland? **Yes** ____ **No** ✓

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 20 ft/radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Baccharis salicifolia	10	no	FAC
2.	7		
3.	0		
4.	0		
	17	= Total Cover	
Sapling/Shrub Stratum (Plot size: 10 ft/radius)			
1. Artemisia douglasiana	12	no	FAC
2.	0		
3.	0		
4.	0		
5.	0		
	12	= Total Cover	
Herb Stratum (Plot size: 5 ft/radius)			
1. Juncus mexicanus	40	yes	FACW
2. Distichlis spicata	30	yes	FAC
3. Oenothera elata	3	no	FACW
4. Sonchus asper	1	no	FAC
5.	0		
6.	0		
7.	0		
8.	0		
9.	0		
10.	0		
11. Centaurea benedicta	10	yes	UPL
	84	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft/radius)			
1.	0		
2.	0		
	0	= Total Cover	

% Bare Ground in Herb Stratum 25 % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 66.67 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1=	0
FACW species	43	x 2=	86
FAC species	53	x 3=	159
FACU species	0	x 4=	0
UPL species	0	x 5=	
Column Totals:	96 (A)		245 (B)

Prevalence Index = B/A = 2.55

Hydrophytic Vegetation Indicators:
yes Dominance Test is >50%
yes Prevalence Index is ≤3.0[1]
no Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
no Problematic Hydrophytic Vegetation[1](Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** ✓

Remarks: Highly disturbed floodplain

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 1	10YR 2/2	100		0			Sandy clay loam	Org layer thin JUME
1 - 12	10YR 2/2	100		0			Sandy clay loam	Uniform top to botto
0 - 0		0		0				
0 - 0		0		0				
0 - 0		0		0				
0 - 0		0		0				
0 - 0		0		0				
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) (**LRR C**)
- ____ 1 cm Muck (A9) (**LRR D**)
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- ____ Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): 0

Hydric Soil Present? **Yes** ✓ **No** _____

Remarks: Low chroma , floodplain.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) (**Nonriverine**)
- ____ Sediment Deposits (B2) (**Nonriverine**)
- ____ Drift Deposits (B3) (**Nonriverine**)
- ____ Surface Soil Cracks (B6)
- X Inundation Visible on Aerial Imagery(B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? no Depth (Inches): 0

Water Table Present? no Depth (Inches): 0

Saturation Present? no Depth (Inches): _____

(includes capillary fringe)

Wetland Hydrology Present? **Yes** _____ **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Aerial imagery and previous v

Remarks: Floodplain to Santa Maria creek, not a wetland.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Ramona RICC | City/County: Ramona | Sampling Date: 4/2/2021

Applicant/Owner: SD County DGS | State: California | Sampling Point: 3

Investigator(s): Brenda McMillan | Section, Township, Range: 32.2.22N 116.52.27W, Elevation 1,413ft

Landform (hillslope, terrace, etc.): Channel (abandoned) | Local relief (concave, convex, none): Concave | Slope (%): 1

Subregion (LRR): LRR-C | Lat: 33.041406353 | Long: -116.874801759 | Datum: - WGS84

Soil Map Unit Name: Placenta Sandy loam | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)

Are Vegetation yes Soil yes or Hydrology yes significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____

Are Vegetation no Soil no or Hydrology yes naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ____ No ✓

Hydric Soil Present? Yes ✓ No ____

Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✓

Remarks: Highly disturbed roadside ditch

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 20 ft/radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Parkinsonia aculeata	1	no	FAC
2.	0		
3.	0		
4.	0		
	1	= Total Cover	
Sapling/Shrub Stratum (Plot size: 10 ft/radius)			
1.	0		
2.	0		
3.	0		
4.	0		
5.	0		
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft/radius)			
1. Rumex crispus	2	yes	FAC
2.	0		
3.	0		
4.	0		
5.	0		
6.	0		
7.	0		
8.	0		
9.	0		
10.	0		
11. Bromus diandrus	40	yes	UPL
	42	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft/radius)			
1.	0		
2.	0		
	0	= Total Cover	

% Bare Ground in Herb Stratum 0 | % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1=	0
FACW species	0	x 2=	0
FAC species	3	x 3=	9
FACU species	0	x 4=	0
UPL species	0	x 5=	
Column Totals:	3 (A)		9 (B)

Prevalence Index = B/A = 3

Hydrophytic Vegetation Indicators:

no Dominance Test is >50%

yes Prevalence Index is ≤3.0[1]

no Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

no Problematic Hydrophytic Vegetation[1](Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** ✓

Remarks:

SOIL

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 12	7.5YR 3/2	97	7.5YR 3/2	3	CS	M	Clay loam	
0 - 0		0		0				
0 - 0		0		0				
0 - 0		0		0				
0 - 0		0		0				
0 - 0		0		0				
0 - 0		0		0				
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Bedrock

Depth (inches): 12

Hydric Soil Present? Yes ✓ No ___

Remarks: Manmade fill/native and fill mix. Looks like will get saturated, ponded. Fertile soil. Low chroma

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- X Inundation Visible on Aerial Imagery(B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? no Depth (Inches): 0

Water Table Present? no Depth (Inches): 0

Saturation Present? no Depth (Inches): ___

(includes capillary fringe)

Wetland Hydrology Present? Yes ___ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Ramona RICC | City/County: Ramona | Sampling Date: 6/22/2021
Applicant/Owner: SD County DGS | State: California | Sampling Point: 4
Investigator(s): Brenda McMillan | Section, Township, Range: 32.2.22N 116.52.27W, Elevation 1,413ft
Landform (hillslope, terrace, etc.): Channel (active) | Local relief (concave, convex, none): Concave | Slope (%): 3
Subregion (LRR): LRR-C | Lat: 32.7617117566 | Long: -117.039208416 | Datum: - WGS84
Soil Map Unit Name: Placentia sandy loam | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation no Soil yes or Hydrology yes significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation no Soil no or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ____ No ✓
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____
Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks: This sample point was determined to be a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft/radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix gooddingii	50	yes	FACW
2.	0		
3.	0		
4.	0		
	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: 20 ft/radius)			
1. Artemisia douglasiana	1	no	FAC
2.	0		
3.	0		
4.	0		
5.	0		
	1	= Total Cover	
Herb Stratum (Plot size: 5 ft/radius)			
1. Avena sativa	5	yes	UPL
2. Hordeum murinum	1	no	FACU
3. Rumex crispus	1	no	FAC
4. Lythrum hyssopifolium	1	no	OBL
5. Polypogon monspeliensis	1	no	FACW
6.	0		
7.	0		
8.	0		
9.	0		
10.	0		
11.	0		
	9	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft/radius)			
1.	0		
2.	0		
	0	= Total Cover	

% Bare Ground in Herb Stratum 60 % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	1	x 1=	1
FACW species	51	x 2=	102
FAC species	2	x 3=	6
FACU species	1	x 4=	25
UPL species	5	x 5=	25
Column Totals:	60 (A)		138 (B)

Prevalence Index = B/A = 2.3

Hydrophytic Vegetation Indicators:
no Dominance Test is >50%
yes Prevalence Index is ≤3.0[1]
no Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
no Problematic Hydrophytic Vegetation[1](Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** ✓

Remarks: Willows growing at the base of rip rap where water flows through culvert

SOIL

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 2	10YR 3/1	100		0			Clay	Rocky, roots
2 - 10	7.5YR 3/2	90	7.5YR 3/2	10	CS	M	Clay	
0 - 0		0		0				
0 - 0		0		0				
0 - 0		0		0				
0 - 0		0		0				
0 - 0		0		0				
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- X Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Clay

Depth (inches): 10

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks: Low chroma, hydric soils list; matches profile description.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- X Sediment Deposits (B2) (**Nonriverine**)
- X Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery(B7)
- X Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- X Water Marks (B1) (**Riverine**)
- X Sediment Deposits (B2) (**Riverine**)
- X Drift Deposits (B3) (**Riverine**)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? no Depth (Inches): 0

Water Table Present? no Depth (Inches): 0

Saturation Present? no Depth (Inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ✓ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Ramona RICC | City/County: Ramona | Sampling Date: 7/14/2021

Applicant/Owner: SD County DGS | State: California | Sampling Point: A

Investigator(s): Brenda McMillan | Section, Township, Range: 32.2.22N 116.52.27W, Elevation 1,413ft

Landform (hillslope, terrace, etc.): Channel (active) | Local relief (concave, convex, none): None | Slope (%): 1

Subregion (LRR): LRR-C | Lat: 32.7617147359 | Long: -117.039144022 | Datum: - WGS84

Soil Map Unit Name: Riverwash | NWI classification: Riverine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)

Are Vegetation no Soil no or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____

Are Vegetation no Soil no or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ____

Hydric Soil Present? Yes ✓ No ____

Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft/radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix lasiolepis	50	yes	FACW
2. Salix gooddingii	25	yes	FACW
3.	0		
4.	0		
	75	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft/radius)			
1. Baccharis salicifolia	10		FAC
2.	0		
3.	0		
4.	0		
5.	0		
	10	= Total Cover	
Herb Stratum (Plot size: 5 ft/radius)			
1. Cyperus eragrostis	5	yes	FACW
2. Artemisia douglasiana	3	no	FAC
3.	0		
4.	0		
5.	0		
6.	0		
7.	0		
8.	0		
9.	0		
10.	0		
11. Stipa milicea	5	yes	UPL
	13	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft/radius)			
1.	0		
2.	0		
	0	= Total Cover	

% Bare Ground in Herb Stratum 7 | % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1=	0
FACW species	80	x 2=	160
FAC species	13	x 3=	39
FACU species	0	x 4=	0
UPL species	0	x 5=	
Column Totals:	93 (A)		199 (B)

Prevalence Index = B/A = 2.14

Hydrophytic Vegetation Indicators:

yes Dominance Test is >50%

yes Prevalence Index is ≤3.0[1]

no Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

no Problematic Hydrophytic Vegetation[1](Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

Remarks:

SOIL

Sampling Point: A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 6	10YR 4/2	35		0			Sand	
0 - 0		0		0				
0 - 0		0		0				
0 - 0		0		0				
0 - 0		0		0				
0 - 0		0		0				
0 - 0		0		0				
0 - 0		0		0				
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- X Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Silt

Depth (inches): 0

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery(B7)
- X Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- X Sediment Deposits (B2) (**Riverine**)
- X Drift Deposits (B3) (**Riverine**)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	no	Depth (Inches):	0
Water Table Present?	yes	Depth (Inches):	6
Saturation Present? (includes capillary fringe)	no	Depth (Inches):	

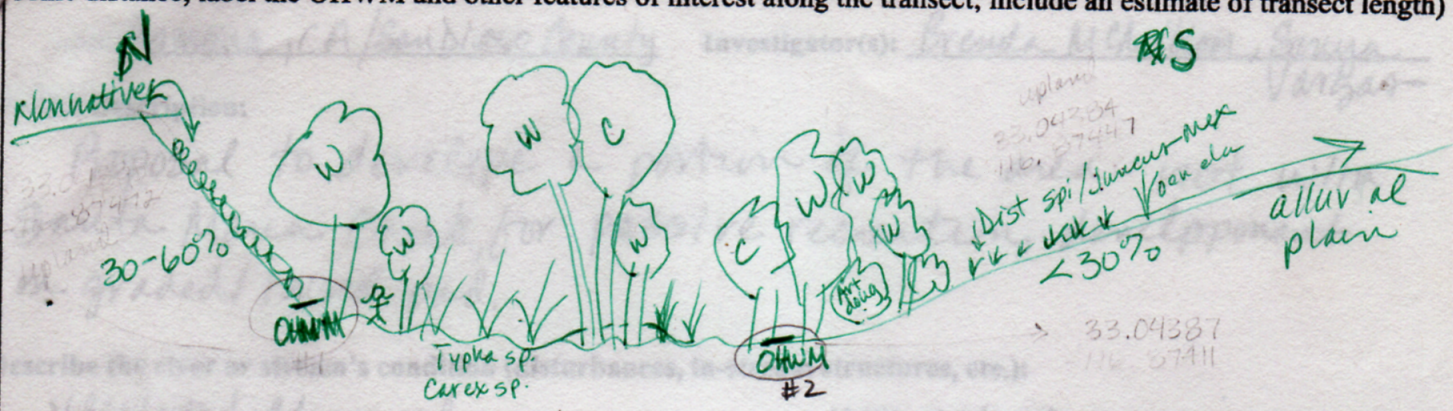
Wetland Hydrology Present? **Yes** ✓ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

asheet # 1 | **OHWM Delineation Datasheet** | Page 1 of 1

Transect (cross-section) drawing: (choose a location that is representative of the dominant stream characteristics over some distance; label the OHWM and other features of interest along the transect; include an estimate of transect length)



Break in Slope at OHWM: ☐ Sharp (> 60°) | ☒ Moderate (30–60°) | ☒ Gentle (< 30°) | ☐ None

Notes/Description: N S

South to North the bank gradually enters the creekbed from the alluvial plain. Santa Maria Creek is very disturbed and has a steep bank on the N side

Sediment Texture: Estimate percentages to describe the general sediment texture above and below the OHWM

	Clay/Silt <0.05mm	Sand 0.05 – 2mm	Gravel 2mm – 1cm	Cobbles 1 – 10cm	Boulders >10cm	Developed Soil Horizons (Y/N)
Above OHWM	90%	10%	—	—	X	N
Below OHWM	5%	80%	15%	/	/	N

Notes/Description:

Soil uniform in alluvial plain (sandy/loam)

Creek bed saturated sandy/gravel

Vegetation: Estimate absolute percent cover to describe general vegetation characteristics above and below the OHWM

	Tree (%)	Shrub (%)	Herb (%)	Bare (%)
Above OHWM	60%	1%	3%	25%
Below OHWM	54%	0%	1%	40%

approx 11% leaf litter/ dead material

5% leaf litter & dead material

+standing H2O

Notes/Description:

~~Site~~ Mapped as SWS based on Willow tree dom w/scattered Cottonwood trees.

Other Evidence: List/describe any additional field evidence and/or lines of reasoning used to support your delineation

NWI Map - Santa Maria Creek mapped as a blue line stream

creek w/ riffle pools, standing H2O (not flowing), saturated soils

Instructions: Complete one cover sheet and one or more datasheets for each project site. Each datasheet should capture the dominant characteristics of the OHWM along some length of a given stream. Complete enough datasheets to adequately document up- and/or downstream variability in OHWM indicators, stream conditions, etc. Transect locations can be sketched on a recent aerial image or their GPS coordinates noted on the datasheet.

Appendix E

ORM Aquatic Resources Spreadsheet

Waters_Name	State	Cowardin_Code	HGM_Code	Meas_Type	Amount	Units	Waters_Type	NWPR_Determine_Code	Latitude	Longitude
Santa Maria Creek	California	R4SB	RIVERINE	Linear	465	FOOT	A2TRIBINT		116°52’29.10”	33°02’37.55”
Disturbed emergent wetland	CALIFORNIA	PEM	DEPRESS	Area	0.314	ACRE	B3EPHEMERAL	Yes - would NOT have been an (a	116°52’29.08”	33°02’29.08”
Bio swale	CALIFORNIA	U	DEPRESS	Area	0.106	ACRE	NOJD404		116°52’30”W	33°02’29”N
Culvert 1	CALIFORNIA	U	RIVERINE	Area	0.009	ACRE	NOJD404		116°52’23”W	33°02’32”N

Appendix B
Burrowing Owl Survey Report

ESA

ESA

550 West C Street
Suite 750
San Diego, CA 92101
619.719.4200 phone
619.719.4201 fax

esassoc.com

July 26, 2021

Mr. Marc Cass
Environmental Project Manager
County of San Diego, Department of General Services
5560 Overland Avenue, Suite 410
San Diego, CA 92123

Subject: Results of 2021 Focused Burrowing Owl Surveys for the Ramona Intergenerational Community Campus Affordable Housing Project, Unincorporated Community of Ramona, San Diego County, California

Dear Mr. Cass:

This report summarizes the methodology and findings of focused burrowing owl (*Athene cunicularia*) (BUOW) surveys conducted for the proposed Ramona Intergenerational Community Campus Affordable Housing Project (project). The project is located in the unincorporated community of Ramona in northern San Diego County, and would include the development of affordable senior residential housing, comprised of 100 residential units, a senior center, and open space uses. The design of the project proposes that the 6,000 square foot senior center be located near the center of the residential units and will include meeting space, a kitchen, private offices, a medical office space/clinic, and other social meeting spaces. Implementation of the proposed project would require the construction of utility services, including water, wastewater, storm drainage, electricity, natural gas, telecommunications, and solid waste disposal areas. The surveys were conducted in accordance with California Department of Fish and Wildlife (CDFW) *Staff Report on Burrowing Owl Mitigation* (2012), and included a habitat assessment and breeding season surveys to determine presence/absence of this species.

Location and Site Description

The project is located on Assessor Parcel Number (APN) 281-182-17 and 281-182-18 (project site) on the east side of where Maple Street turns into 13th Street, within the community of Ramona in unincorporated San Diego County, as shown in **Figure 1**, Regional Location. The project site is generally bound by Walnut Street and Santa Maria Creek to the north; the terminus of 12th Street and vacant parcels to the east; vacant land with multiple degraded concrete pads to the south; and Maple Street/13th Street and a salvage yard to the west, as shown in **Figure 2**, Vicinity Map. The project is located within an unsectioned portion of Township 13 South and Range 1 East of the Ramona and San Pasqual, California quadrangle United States Geological Survey (USGS) 7.5-minute topographic quadrangles (Figure 2).

The survey area includes the project site, plus a 150-meter (m) buffer (survey area). The survey area is generally comprised of disturbed open space, industrial, and urban development. Topography within the survey area generally ranges from relatively flat to gently sloping downward towards the riparian habitat within Santa Maria Creek to the north. Soils in the survey area consist of Placentia sandy loam, Visalia sandy loam, Fallbrook sandy

loam, and Chino silt loam (USDA 2021). Riverwash occurs in the northern portion of the survey area aligning with Santa Maria Creek. Slopes in the survey area range from 0 to 30 percent gradients. The survey area is immediately adjacent to industrial and urban development, including dirt and paved roads, an operating transfer station, junk yards, and a public library.

Background

BUOW is a CDFW species of special concern and a covered species under the Draft North County Multiple Species Conservation Program (NCMSCP) (County of San Diego 2017). Suitable habitat for this species generally consists of short, sparse vegetation with few shrubs and may include annual and perennial grasslands, deserts, and scrub characterized by low-growing vegetation. This species may also occur in some agricultural areas, weedy fields, vacant lots and pastures. Underground burrows or other cavities are required for nesting. This species uses burrows dug by other species and man-made structures such as culverts, pipes, and debris piles. The nesting season begins as early as February and continues through August, with peak nesting occurring between April and July. The wintering season extends from September 1 through January 31, with peak wintering occurring from December 1 through January 31.

Survey Methodology

Environmental Science Associates (ESA) biologists conducted a BUOW habitat assessment and four breeding season surveys following the guidelines provided in the CDFW *Staff Report on Burrowing Owl Mitigation*. Prior to the start of surveys, a search for BUOW occurrences was completed through publicly available databases, including the California Natural Diversity Database (CNDDB), U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) database, and SanBIOS (CDFW 2021, USFWS 2021, SanBIOS 2021).

The surveys were conducted by ESA biologists Jaclyn Catino-Davenport and Brenda McMillan and interns Anna Millar and Rachel Le within the survey area. All surveys were conducted between morning civil twilight and 09:30 AM during suitable weather conditions. Survey dates, times, and weather conditions are presented in **Table 1**, *Survey Data*, below. The surveys consisted of four separate site visits with one visit between February 15 and April 15, and three visits at least three weeks apart between April 15 and July 15, with one of these visits after June 15. The habitat assessment was conducted concurrently with the first breeding season survey. During the habitat assessment, the entire survey area was evaluated for the presence of suitable BUOW breeding habitat (e.g., short or sparse vegetation for at least a portion of the year, with burrows, burrow surrogates, or fossorial mammal dens). Areas supporting riparian habitats (southern cottonwood-willow riparian forest, southern willow scrub), dense coastal sage scrub habitat, and pavement or structures in the developed portion of the survey area were determined to be unsuitable for breeding BUOW and excluded from the survey area; however, the edges of these areas were scanned during surveys. Meandering transects were conducted throughout all suitable habitat during the habitat assessment and breeding season surveys. Transects were spaced 7 m to 20 m apart throughout suitable habitat, and walked in a zig-zag fashion to allow for 100 percent visibility. In addition, binoculars were utilized to visually scan the survey area at intervals along each transect spaced no more than 100 m apart, and

included inaccessible off-site properties within the survey buffer. Burrows and potential burrow surrogates, such as culverts, pipes, and debris piles, were mapped using GPS during the habitat assessment and visually inspected for BUOW sign (e.g., pellets, whitewash, feathers, decoration, etc.) during each breeding season survey.

TABLE 1
SURVEY INFORMATION

Date	Time	Wind (mph) (start/end)	Temperature (F) (start-end)	Weather (start-end)	Surveyors
04/15/2021	0623-0930	0/0	45°-61°	30% Cloud Cover – 70% Cloud Cover	Jaclyn Catino-Davenport, Anna Millar
05/13/2021	0558-0902	1-2.2/0-4.9	57.1°-65°	100% Cloud Cover – 65% Cloud Cover	Jaclyn Catino-Davenport, Brenda McMillan
06/03/2021	0526-0815	0/0-2.2	57.5°-75.2°	100% Cloud Cover – 0% Cloud Cover	Jaclyn Catino-Davenport
06/25/2020	0532-0718	0/0	55°-58°	0% Cloud Cover – 0% Cloud Cover	Jaclyn Catino-Davenport, Rachel Le

Survey Results

Habitat Assessment

The project boundary contains a total of eight vegetation communities and land cover types: southern cottonwood-willow riparian forest, southern willow scrub, disturbed emergent wetland, saltgrass grassland, non-native grassland, non-native grassland: broadleaf-dominated, disturbed habitat, and urban/developed (**Figure 3**). Suitable habitat for BUOW within the project site and surrounding 150-m buffer consists of saltgrass grassland, non-native grassland, non-native grassland: broadleaf-dominated, and urban/developed and are described further below.

Saltgrass Grassland. This vegetation community occurs near the middle of the survey area, and is associated with Santa Maria Creek. Saltgrass (*Distichlis spicata*) makes up greater than 50% of the cover, while 40% consist of other native species including Douglas' wormwood (*Artemisia douglasiana*), Mexican rush (*Juncus mexicanus*), clustered field sedge (*Carex praegracilis*), southern tarplant (*Centromadia parryii* ssp. *australis*), and Hooker's evening-primrose (*Oenothera elata*). The remaining 10% of cover consisted of non-native plant species such as spiny-leaf sow-thistle (*Sonchus asper*), tocalote (*Centaurea melitensis*), Italian thistle (*Carduus pycnocephalus*), and short-pod mustard (*Hirschfeldia incana*).

Non-native Grassland: Broadleaf Dominated. This vegetation community makes up the majority of the survey area, occurring on the southern portion as well as the north end of the survey area. Vegetation consists of a mixture of non-native grasses and non-native broadleaf species including broad leaf filaree (*Erodium botrys*), stinkwort (*Dittrichia graveolens*), seaside barley (*Hordeum marinum*), Italian thistle, milk thistle (*Silybum marianum*), smooth cat's ear (*Hypochaeris glabra*), tocalote, foxtail brome (*Bromus madritensis*), ripgut brome

(*Bromus diandrus*), and short-pod mustard. This vegetation community also includes Peruvian pepper tree (*Schinus molle*) and Mexican palo verde (*Parkinsonia aculeata*).

Non-native grassland. Non-native grassland occurs in two small patches within the survey area: one in the northwest portion, adjacent to Maple Street, and the other patch occurs directly adjacent to and parallel to Maple Street in the southwest corner. Both patches consist primarily of ripgut brome, wild oat (*Avena* sp.), and seaside barley.

Urban/Developed. This land cover type consists of developed and paved roads and lots, buildings, areas with concrete slabs and rip rap, and disturbed open areas directly adjacent to roads, including areas with ornamental trees such as Peruvian pepper trees and eucalyptus (*Eucalyptus* sp.). In addition, this land cover type includes a manmade culvert/dissipation pool, which contains planted species including toad rush (*Juncus bufonius*), hyssop loosestrife (*Lythrum hyssopifolium*), deergrass (*Muhlenbergia rigens*), and San Diego sedge (C*arex spissa*).

Breeding Season Surveys

No BUOW were observed within the survey area during the four breeding season surveys conducted. Although natural ground squirrel burrows were identified on-site, none of the burrows exhibited evidence of use by BUOW (e.g., presence of feathers, whitewash, pellets, etc.). Potential burrow surrogates, such as debris piles, pipes, and rock piles, within the survey area were also inspected but no evidence of use by BUOW was observed. A complete list of avian and other wildlife species observed is included in **Attachment A**.

Incidental Observations

Incidentally-observed avian special-status species included the Cooper's hawk (*Accipiter cooperii*), double-crested cormorant (*Phalacrocorax auritus*), and yellow warbler (*Setophaga petechia*) (**Figure 4**). Cooper's hawk and double-crested cormorant are CDFW watch list species and yellow warbler is a CDFW species of special concern. Only the yellow warbler was detected during multiple surveys.

Conclusion

This species was determined to have a low potential to occur within the survey area due to the presence of low-quality habitat with suitable burrows, current human disturbances onsite, and adjacent surrounding land. The survey area is isolated and surrounded by mostly industrial and urban development limiting the possibility of the survey area being occupied by this species in the future. However, in accordance with the guidance in the CDFW *Staff Report on Burrowing Owl Mitigation* (2012), a take avoidance survey is recommended within 14 days prior to the start of any clearing, grubbing, or grading activities. Time lapses between project activities would also trigger the need for subsequent take avoidance surveys conducted within 24 hours prior to ground disturbance. Should occupied burrows be observed within 300 feet of the project footprint, the County shall notify CDFW to determine suitable take avoidance measures, such as development of an artificial burrow and exclusion plan.

Please contact Jaclyn Catino-Davenport (JCatino-Davenport@esassoc.com) at (619) 719-4211 with any questions or comments regarding the findings described in this letter report.

Sincerely,

Jaclyn Catino-Davenport
Managing Biologist

References

California Department of Fish and Wildlife (CDFW). 2021. *California Natural Diversity Database*. RareFind5. California Department of Fish and Wildlife, Biogeographic Data Branch. Sacramento, CA. Accessed January 2021.

——. 2012. Staff Report on Burrowing Owl Mitigation. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83843.

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U.S. Department of Agriculture (USDA) 2021. Web Soil Survey. Soil Map. Available at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed June 20, 2021.

U.S. Fish and Wildlife Service (USFWS). 2021. Information for Planning and Consultation (IPaC) online tool. Accessed at https://ecos.fws.gov/ipac/location/index on January 2021.

Attachments

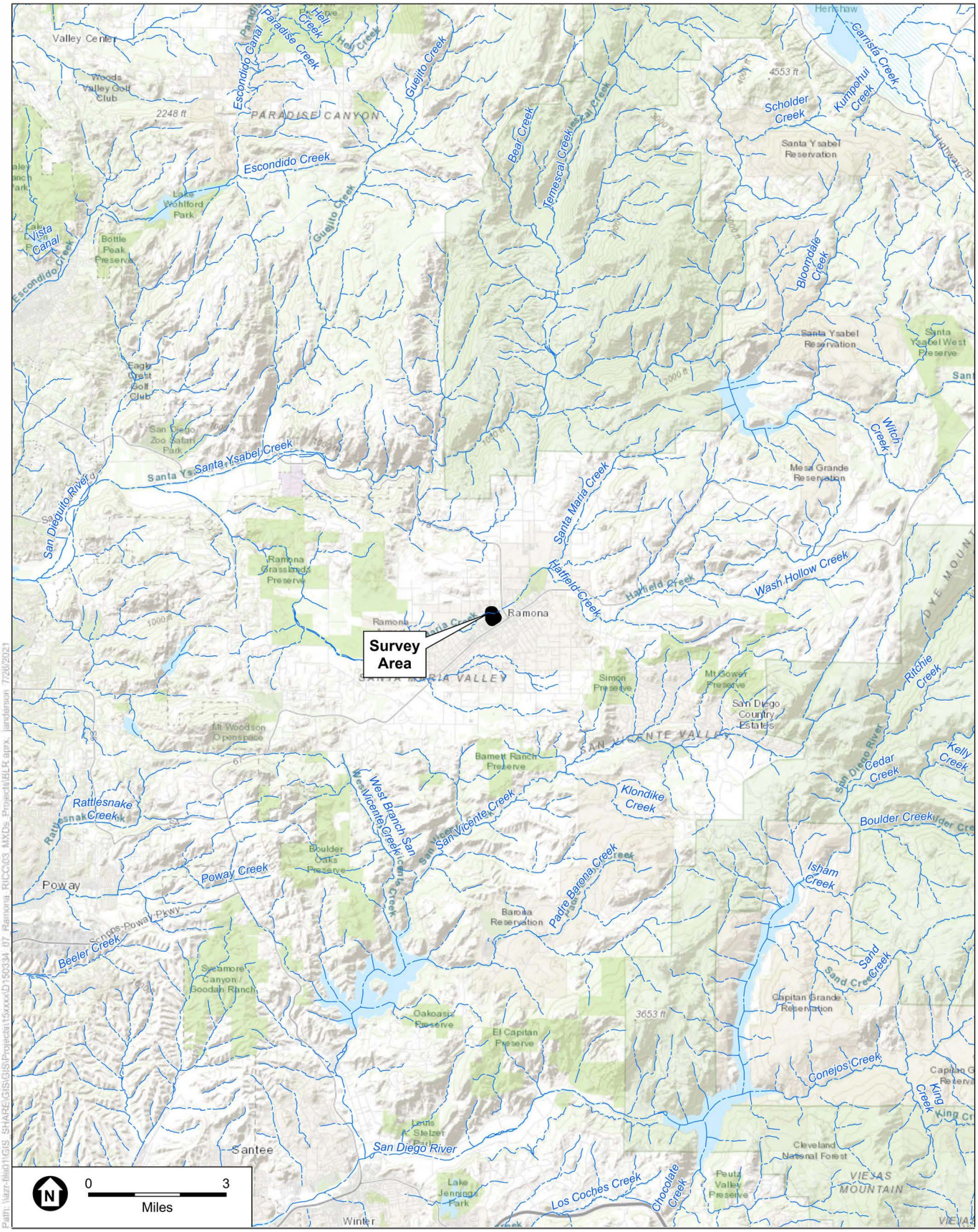
Figure 1: Regional Location
Figure 2: Vicinity Map
Figure 3: Natural Communities and Land Cover Types
Figure 4: 2021 Burrowing Owl Survey Results

Attachment A: Faunal Compendium
Attachment B: CNDDB Forms

Certification Statement

I certify that the information in this survey report and attached exhibits fully and accurately represents my work.

Jaclyn Catino-Davenport
Managing Biologist

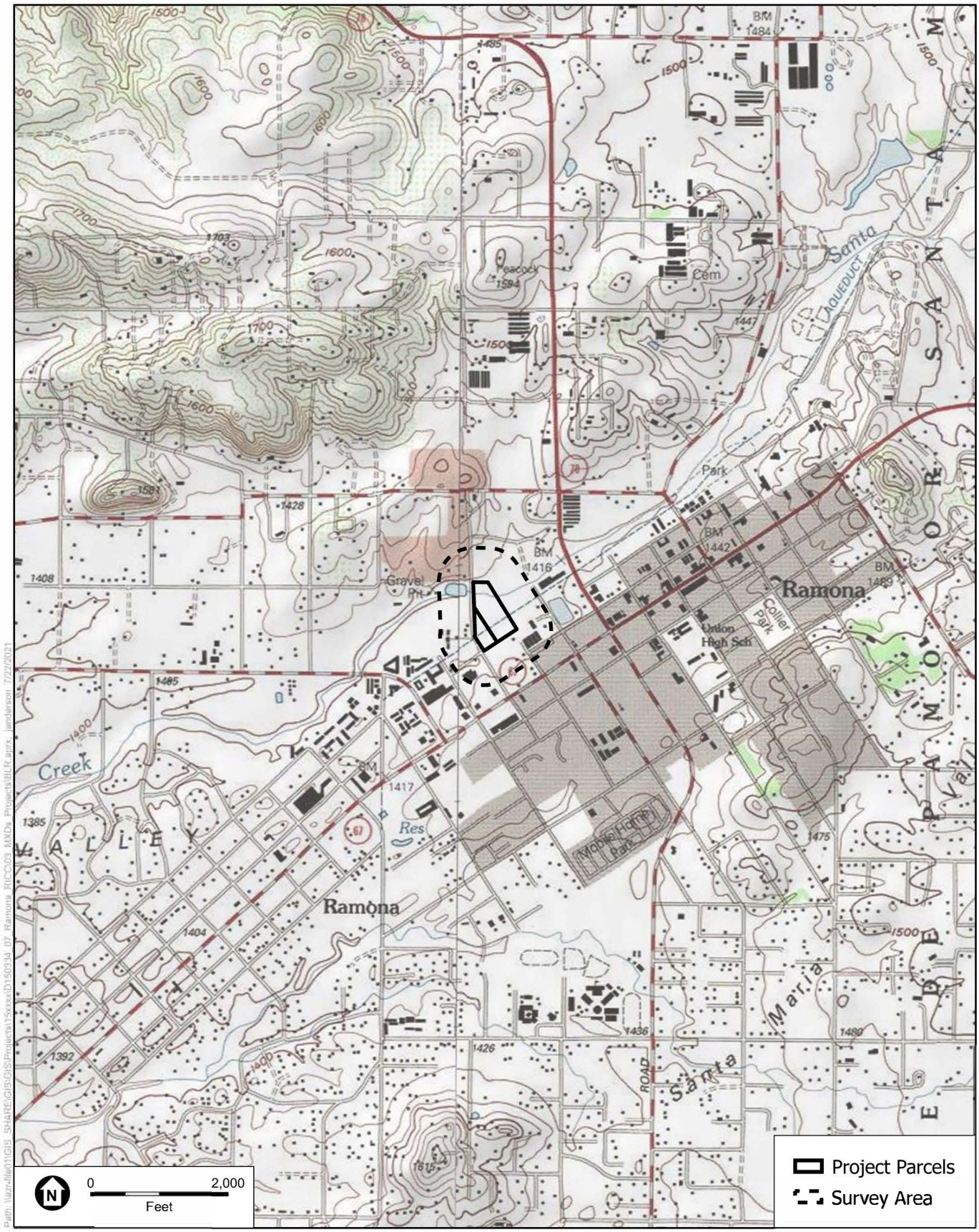


SOURCE: ESRI World Topographic Map.

Ramona Intergenerational Community Campus Affordable Housing Project

Figure 1
Regional Location

ESA

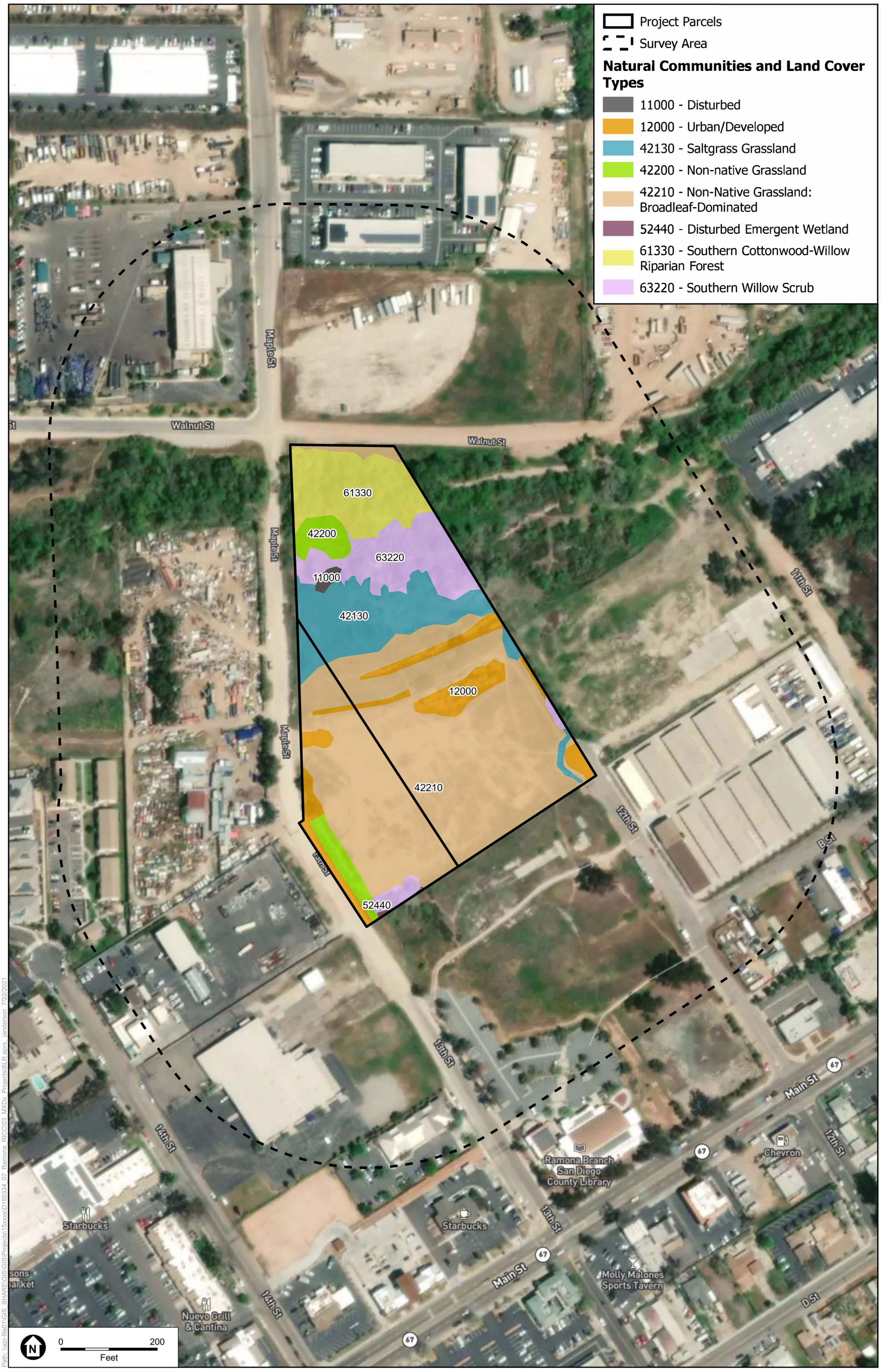


SOURCE: USGS Topographic Series (San Pasqual, Ramona), 2018.

Ramona Intergenerational Community Campus Affordable Housing Project

Figure 2
Vicinity Map

ESA



SOURCE: ESA, 2021.

Ramona Intergenerational Community Campus Affordable Housing Project

Figure 3

Natural Communities and Land Cover Types

ESA

Path: \\azr-file01\GIS_SHARE\GIS\GIS\Projects\15xxxx\D150334 07 Ramona RICC\03 MXDs Projects\BLR.aprx, janderson 7/22/2021

SOURCE: ESA, 2021.

Ramona Intergenerational Community Campus Affordable Housing Project

Figure 4

2021 Burrowing Owl Survey Results

ESA

Attachment A
Faunal Compendium

ESA

FAUNAL COMPENDIUM

INVERTEBRATES

Scientific Name	Common Name	Status (Federal/State/Local)[1]
Insecta (Order Lepidoptera)	**Butterflies and Moths**	
Brephidium exilis	western pygmy blue	None/None/None

REPTILES

Scientific Name	Common Name	Status (Federal/State/Local)[1]
LACERTILIA	**LIZARDS**	
Phrynosomatidae	**Zebratail, Earless, Horned, Spiny, Fringe-Toed Lizards**	
Sceloporus occidentalis	western fence lizard	None/None/None

BIRDS

Scientific Name	Common Name	Status (Federal/State/Local)
GALLIFORMES		
Odontophoridae	**New World Quail**	
Callipepla californica	California quail	None/None/None
COLUMBIFORMES		
Columbidae	**Pigeons and Doves**	
* *Columba livia*	rock pigeon	None/None/None
* *Streptopelia decaocto*	Eurasian collared-dove	None/None/None
Zenaida macroura	mourning dove	None/None/None
CUCULIFORMES		
Cuculidae	**Cuckoos and Roadrunners**	
Geococcyx californianus	greater roadrunner	None/None/None
CAPRIMULGIFORMES		
Trochilidae	**Hummingbirds**	
Calypte anna	Anna's hummingbird	None/None/None
CHARADRIIFORMES		
Charadriidae	**Plovers, Dotterels, and Lapwings**	
Charadrius vociferus	killdeer	None/None/None

BIRDS

Scientific Name	Common Name	Status (Federal/State/Local)
SULIFORMES		
Phalacrocoracidae	**Cormorants and Shags**	
Phalacrocorax auritus	double-crested cormorant	None/WL/Group 2
ACCIPITRIFORMES		
Accipitridae	**Hawks**	
Accipiter cooperii	Cooper's hawk	None/WL/Group 1
Buteo lineatus	red-shouldered hawk	None/None/Group 1
PICIFORMES		
Picidae	**Woodpeckers**	
Picoides nuttallii	Nuttall's woodpecker	None/None/None
PASSERIFORMES		
Tyrannidae	**Tyrant Flycatchers**	
Empidonax difficilis	pacific-sloped flycatcher	None/None/None
Sayornis nigricans	black phoebe	None/None/None
Sayornis saya	Say's phoebe	None/None/None
Tyrannus vociferans	Cassin’s kingbird	None/None/None
Tyrannus verticalis	western kingbird	None/None/None
Corvidae	**Jays and Crows**	
Corvus brachyrhynchos	American crow	None/None/None
Corvus corax	common raven	None/None/None
Hirundinidae	**Swallows and Martins**	
Petrochelidon pyrrhonota	cliff swallow	None/None/None
Aegithalidae	**Bushtits**	
Psaltriparus minimus	bushtit	None/None/None
Troglodytidae	**Wrens**	
Thryomanes bewickii	Bewick's wren	None/None/None
Mimidae	**Thrashers**	
Mimus polyglottos	northern mockingbird	None/None/None
Turdidae	**Thrushes**	
Sialia mexicana	western bluebird	None/None/Group 1
Fringillidae	**Finches**	
Haemorhous mexicanus	house finch	None/None/None
Spinus lawrencei	Lawrence's goldfinch	None/None/None
Spinus psaltria	lesser goldfinch	None/None/None
Passerellidae	**New World Sparrows**	
Zonotrichia leucophry	white-crowned sparrow	None/None/None
Melospiza melodia	song sparrow	None/None/None
Melospiza lincolnii	Lincoln’s sparrow	None/None/None
Melozone crissalis	California towhee	None/None/None
Pipilo maculatus	spotted towhee	None/None/None

BIRDS

Scientific Name	Common Name	Status (Federal/State/Local)
Icteridae	**Orioles, Grackles, and Cowbirds**	
Agelaius phoeniceus	red-winged blackbird	None/None/None
Molothrus ater	brown-headed cowbird	None/None/None
Parulidae	**Wood Warblers**	
Geothlypis trichas	common yellowthroat	None/None/None
Setophaga petechia	yellow warbler	None/SSC/Group 2
Cardellina pusilla	Wilson's warbler	None/None/None
PSITTACIFORMES		
Sturnidae	**Starlings**	
* *Sturnus vulgaris*	European starling	None/None/None
Cardinalidae	**Buntings, Grosbeaks, and Tanagers**	
Pheucticus melanocephalus	black-headed grosbeak	None/None/None

MAMMALS

Scientific Name	Common Name	Status (Federal/State/Local)
Leporidae	**Rabbits and Hares**	
Sylvilagus audubonii	Audubon's cottontail	None/None/None
Sciuridae	**Squirrels, Marmots, and Prairie Dogs**	
Otospermophilus beecheyi	California ground squirrel	None/None/None

[1] FE: Federally Endangered
FT: Federally Threatened
SE: State Endangered
WL: California Department of Fish and Wildlife Watch List
FP: California Department of Fish and Wildlife Fully Protected
SSC: California Department of Fish and Wildlife Species of Special Concern
MSCP: Covered under the Draft North County MSCP
Group 1: Animals of high sensitivity (listed or specific natural history requirements) (County)
Group 2: Animals declining but not in immediate threat of extinction or extirpation (County)
* Non-native species

Attachment B
CNDDB Forms

ESA

Mail to:
California Natural Diversity Database
California Dept. of Fish & Wildlife
P.O. Box 944209
Sacramento, CA 94244-2090
CNDDB@wildlife.ca.gov

For Office Use Only
Source Code: _____ Quad Code: _____
Elm Code: _____ Occ No.: _____
EO Index: _____ Map Index: _____

Date of Field Work (mm/dd/yyyy): 05/13/2021

Clear Form

California Native Species Field Survey Form

Print Form

Scientific Name: *Accipiter cooperii*

Common Name: Cooper's Hawk

Species Found? (●) Yes ( ) No — If not found, why? _____

Total No. Individuals: 1 Subsequent Visit? ( ) Yes (●) No

Is this an existing NDDB occurrence? _____ Yes, Occ. # [X] No [ ] Unk.

Collection? If yes: _____ Number _____ Museum / Herbarium

Reporter: Jaclyn Catino-Davenport
Address: 550 West C Street Suite 750, San Diego CA
E-mail Address: jcatino-davenport@esassoc.com
Phone: 619-719-4211

Plant Information

Phenology:

_____ % vegetative _____ % flowering _____ % fruiting

Animal Information

1 # adults _____ # juveniles _____ # larvae _____ # egg masses _____ # unknown

[ ] wintering [ ] breeding [ ] nesting [ ] rookery [ ] burrow site [ ] lek [X] other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr: County of San Diego, Department of General Services

Quad Name: Ramona Elevation: 430

T___ R___ Sec___, ___¼ of ___¼, Meridian: H( ) M( ) S( ) Source of Coordinates (GPS, topo. map & type): GPS

T___ R___ Sec___, ___¼ of ___¼, Meridian: H( ) M( ) S( ) GPS Make & Model: Android Phone

DATUM: **NAD27** ( ) **NAD83** ( ) **WGS84** (●) Horizontal Accuracy: 20 feet meters/feet

Coordinate System: UTM Zone 10 ( ) UTM Zone 11 ( ) ***OR*** Geographic (Latitude & Longitude) (●)

Coordinates: 33.042717, -116.873737

Habitat Description (plants & animals) *plant communities, dominants, associates, substrates/soils, aspects/slope:*
Animal Behavior *(Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):*

Flying through site, unknown if breeding in immediate area

Please fill out separate form for other rare taxa seen at this site.

Site Information

Overall site/occurrence quality/viability (site + population): ( ) Excellent (●) Good ( ) Fair ( ) Poor

Immediate AND surrounding land use: Urban (salvage yards, storage units, and libarary) development

Visible disturbances: Homeless encampments and unauthorized trails through habitat

Threats: _____

Comments:

Determination: *(check one or more, and fill in blanks)*

- [ ] Keyed (cite reference): _____
- [ ] Compared with specimen housed at: _____
- [ ] Compared with photo / drawing in: _____
- [ ] By another person (name): _____
- [X] Other: Confirmed by qualified, experienced biologist

Photographs: *(check one or more)*

	Slide	Print	Digital
Plant / animal	[ ]	[ ]	[ ]
Habitat	[ ]	[ ]	[X]
Diagnostic feature	[ ]	[ ]	[ ]

May we obtain duplicates at our expense? (●) yes ( ) no

Mail to:
California Natural Diversity Database
California Dept. of Fish & Wildlife
P.O. Box 944209
Sacramento, CA 94244-2090
CNDDB@wildlife.ca.gov

For Office Use Only
Source Code: _____ Quad Code: _____
Elm Code: _____ Occ No.: _____
EO Index: _____ Map Index: _____

Date of Field Work (mm/dd/yyyy): 04/15/2021

Clear Form

California Native Species Field Survey Form

Print Form

Scientific Name: *Phalacrocorax auritus*

Common Name: Double-crested Cormorant

Species Found? (●) Yes ( ) No _____ If not found, why?

Total No. Individuals: 2 Subsequent Visit? ( ) Yes (●) No

Is this an existing NDDB occurrence? _____ Yes, Occ. # [X] No [ ] Unk.

Collection? If yes: _____ Number _____ Museum / Herbarium

Reporter: Jaclyn Catino-Davenport
Address: 550 West C Street Suite 750, San Diego CA
E-mail Address: jcatino-davenport@esassoc.com
Phone: 619-719-4211

Plant Information
Phenology:
_____ % vegetative _____ % flowering _____ % fruiting

Animal Information
_____ # adults _____ # juveniles _____ # larvae _____ # egg masses 2 # unknown
[ ] wintering [ ] breeding [ ] nesting [ ] rookery [ ] burrow site [ ] lek [X] other

Location Description ***(please attach map AND/OR fill out your choice of coordinates, below)***

County: San Diego Landowner / Mgr: County of San Diego, Department of General Services
Quad Name: Ramona Elevation: 430
T___ R___ Sec___, ___¼ of ___¼, Meridian: H ( ) M ( ) S ( ) Source of Coordinates (GPS, topo. map & type): GPS
T___ R___ Sec___, ___¼ of ___¼, Meridian: H ( ) M ( ) S ( ) GPS Make & Model: Android Phone
DATUM: **NAD27** ( ) **NAD83** ( ) **WGS84** ( ) Horizontal Accuracy: 20 feet meters/feet
Coordinate System: UTM Zone 10 ( ) UTM Zone 11 ( ) ***OR*** Geographic (Latitude & Longitude) ( )
Coordinates: 33.042361, -116.875042

Habitat Description (plants & animals) *plant communities, dominants, associates, substrates/soils, aspects/slope:*
Animal Behavior *(Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):*

Flying over site

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): ( ) Excellent (●) Good ( ) Fair ( ) Poor
Immediate AND surrounding land use: Urban (salvage yards, storage units, and libarary) development
Visible disturbances: Homeless encampments and unauthorized trails through habitat
Threats: _____
Comments:

Determination: *(check one or more, and fill in blanks)*
[ ] Keyed (cite reference): _____
[ ] Compared with specimen housed at: _____
[ ] Compared with photo / drawing in: _____
[ ] By another person (name): _____
[X] Other: Confirmed by qualified, experienced biologist

Photographs: *(check one or more)*

	Slide	Print	Digital
Plant / animal	[ ]	[ ]	[ ]
Habitat	[ ]	[ ]	[X]
Diagnostic feature	[ ]	[ ]	[ ]

May we obtain duplicates at our expense? (●) yes ( ) no

Mail to:
California Natural Diversity Database
California Dept. of Fish & Wildlife
P.O. Box 944209
Sacramento, CA 94244-2090
CNDDB@wildlife.ca.gov

For Office Use Only
Source Code: _____ Quad Code: _____
Elm Code: _____ Occ No.: _____
EO Index: _____ Map Index: _____

Date of Field Work (mm/dd/yyyy): 05/13/2021

Clear Form

California Native Species Field Survey Form

Print Form

Scientific Name: *Setophaga petechia*

Common Name: Yellow Warbler

Species Found? (●) Yes ( ) No _____ If not found, why?

Total No. Individuals: 4 Subsequent Visit? (●) Yes ( ) No

Is this an existing NDDB occurrence? _____ Yes, Occ. # [X] No [ ] Unk.

Collection? If yes: _____ Number _____ Museum / Herbarium

Reporter: Jaclyn Catino-Davenport
Address: 550 West C Street Suite 750, San Diego CA 92101
E-mail Address: jcatino-davenport@esassoc.com
Phone: 619-719-4211

Plant Information

Phenology:

_____ % vegetative _____ % flowering _____ % fruiting

Animal Information

3 # adults _____ # juveniles _____ # larvae _____ # egg masses _____ # unknown

[ ] wintering [X] breeding [ ] nesting [ ] rookery [ ] burrow site [ ] lek [ ] other

Location Description *(please attach map AND/OR fill out your choice of coordinates, below)*

County: San Diego Landowner / Mgr: County of San Diego, Department of General Services

Quad Name: Ramona Elevation: 430

T____ R____ Sec____, ____¼ of ____¼, Meridian: H( ) M( ) S( ) Source of Coordinates (GPS, topo. map & type): GPS

T____ R____ Sec____, ____¼ of ____¼, Meridian: H( ) M( ) S( ) GPS Make & Model: Android Phone

DATUM: **NAD27** ( ) **NAD83** ( ) **WGS84** (●) Horizontal Accuracy: 20 feet meters/feet

Coordinate System: UTM Zone 10 ( ) UTM Zone 11 ( ) ***OR*** Geographic (Latitude & Longitude) (●)

Coordinates: 33.043845, -116.873713; 33.042756, -116.871090; 33.043677, -116.873132; 33.043856, -116.872778

Habitat Description (plants & animals) *plant communities, dominants, associates, substrates/soils, aspects/slope:*

Animal Behavior *(Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):*

Foraging on 05/13/2021
Two indviduals heard singing/calling on 06/03/2021
Singing/calling on 06/25/2021

Please fill out separate form for other rare taxa seen at this site.

Site Information

Overall site/occurrence quality/viability (site + population): ( ) Excellent (●) Good ( ) Fair ( ) Poor

Immediate AND surrounding land use: Urban (salvage yards, storage units, and libarary) development

Visible disturbances: Homeless encampments and unauthorized trails through habitat

Threats: brown-headed cowbird parasitism

Comments:

Determination: *(check one or more, and fill in blanks)*

[ ] Keyed (cite reference): _____
[ ] Compared with specimen housed at: _____
[ ] Compared with photo / drawing in: _____
[ ] By another person (name): _____
[X] Other: Confirmed by qualified, experienced biologist

Photographs: *(check one or more)*

	Slide	Print	Digital
Plant / animal	[ ]	[ ]	[ ]
Habitat	[ ]	[ ]	[X]
Diagnostic feature	[ ]	[ ]	[ ]

May we obtain duplicates at our expense? (●) yes ( ) no

Appendix C
Least Bell's Vireo Survey Report

ESA

ESA

550 West C Street
Suite 750
San Diego, CA 92101
619.719.4200 phone
619.719.4201 fax

www.esassoc.com

August 2, 2021

Stacey Love
Carlsbad Fish and Wildlife Service Office
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

Subject: Results of 2021 Focused Least Bell's Vireo Surveys for the Ramona Intergenerational Community Campus Affordable Housing Project, Unincorporated Community of Ramona, San Diego County, California

Dear Ms. Love:

This letter report presents the methodology and results of focused surveys conducted for least Bell's vireo (*Vireo bellii pusillus*; LBV) at the proposed Ramona Intergenerational Community Campus Affordable Housing Project (project) located in the unincorporated community of Ramona in northern San Diego County. Environmental Science Associates (ESA) biologist Jaclyn Catino-Davenport conducted the surveys to determine the presence or absence of the species within the project plus a 150-meter (m) buffer (survey area). Surveys were conducted on behalf of the County of San Diego Department of General Services.

Project Description and Location

The proposed project is located in unincorporated community of Ramona in northern San Diego County west of State Route 78 and north of State Route 67 (**Figure 1**). The project is located on private parcels, Assessor Parcel Number (APN) 281-182-17 and 281-182-18 (project site), on the east side of where Maple Street turns into 13th Street. The project site is generally bound by Walnut Street and Santa Maria Creek to the north; the terminus of 12th Street and vacant parcels to the east; vacant land with multiple degraded concrete pads to the south; and Maple Street/13th Street and a salvage yard to the west. It is within an unsectioned portion of Township 13 South and Range 1 East of the Ramona and San Pasqual, California quadrangle United States Geological Survey (USGS) 7.5-minute topographic quadrangles (**Figure 2**).

The proposed project would include the development of affordable senior residential housing, comprised of 100 residential units, a senior center, and open space uses. The design of the project proposes that the 6,000 square foot senior center be located near the center of the residential units and will include meeting space, a kitchen, private offices, a medical office space/clinic, and other social meeting spaces. Implementation of the proposed project would require the construction of utility services, including water, wastewater, storm drainage, electricity, natural gas, telecommunications, and solid waste disposal areas.

Site Description

The survey area contains a total of eight vegetation communities and land cover types: southern cottonwood-willow riparian forest, southern willow scrub, disturbed emergent wetland, saltgrass grassland, non-native grassland, non-native grassland: broadleaf-dominated, disturbed, and urban/developed (**Figure 3**). For the

purposes of the LBV survey, vegetation communities within the Santa Maria Creek and isolated southern willow scrub in the southern and eastern portions of the survey area were surveyed. A description of the vegetation communities with potentially suitable habitat for LBV are presented below.

Southern Cottonwood-Willow Riparian Forest (61330)

Southern cottonwood-willow riparian forest occurs on the northern portion of the survey area, and is associated with the Santa Maria Creek. Trees dominating the canopy cover include black willow (*Salix gooddingii*), arroyo willow (*Salix lasiolepis*), and cottonwood (*Populus fremontii*), while the understory includes mulefat (*Baccharis salicifolia*), herbs such as mugwort (*Artemisia douglasiana*), stinging nettle (*Urtica dioica*), non-native grasses such as smilo grass (*Stipa miliacea*), giant reed (*Arundo donax*), and pockets of non-vegetated riverwash substrate.

Southern Willow Scrub (63320)

Southern willow scrub occurs on the northern portion of the survey area, and is associated with the floodplain of Santa Maria Creek. Species dominating this natural community include arroyo willow, sandbar willow (*Salix exigua*), mulefat, a few black willows, and a single cottonwood. The understory consisted of stinging nettle and saltgrass (*Distichlis spicata*). Additionally, a small patch occurs near the southwest corner of the survey area just west of Maple Street which is associated with a drain that directs water under 13th Street.

Survey Methodology

Surveys for LBV were conducted by ESA biologist Jaclyn Catino-Davenport. Methods employed were in conformance with U.S. Fish and Wildlife Service (USFWS) *Least Bell's Vireo Survey Guidelines* issued January 19, 2001. [1] Eight surveys were conducted between April 15 and July 7, 2021 within all portions of the survey area containing potentially suitable habitat. All vegetation communities within the Santa Maria Creek were surveyed to encompass all potentially suitable nesting habitat and adjacent habitat potentially used for foraging. Surveys were conducted no less than ten days apart between 6:06 AM and 10:35 AM. Weather conditions were suitable for surveys, with overcast to clear skies, winds of 6 miles per hour or less, and temperatures between 53.2 and 79 degrees Fahrenheit.

Survey Results

Survey results are summarized in **Table 1** below and depicted on **Figure 4**. Only one LBV was detected once during the 2021 focused surveys. Brown-headed cowbirds (*Molothrus ater*), which are brood parasites, were also detected within the survey area during protocol LBV surveys as summarized in **Table 2** below.

---

1 U.S. Department of the Interior, Fish and Wildlife Service. January 19, 2001. *Least Bell's Vireo Survey Guidelines.* Ecological Services. Carlsbad Fish and Wildlife Office.

TABLE 1
LBV SURVEY RESULTS

Date	Time (start/end)	Wind (mph) (start/end)	Temperature (F) (start-end)	Cloud Cover (start/end)	Results	Surveyors
04/15/21	0935–1035	0/0–3	61°–58°	70–75	0 LBV Detected	Jaclyn Catino-Davenport, Anna Millar
05/03/21	0606–0706	0/0	54°–55°	100–100	0 LBV Detected	Jaclyn Catino-Davenport, Anna Millar
05/13/21	0905–1013	0–4.9/0.1–4.3	57.1°–70.1°	65–0	1 LBV Detected	Jaclyn Catino-Davenport, Brenda McMillan
05/24/21	0607–0711	0–1/0	53.2°–61.3°	0–0	0 LBV Detected	Jaclyn Catino-Davenport, Rachel Le
06/03/21	0817–0948	0–2.2/0–6	75.2°–79°	0–0	0 LBV Detected	Jaclyn Catino-Davenport
06/15/21	0615–0734	0–0.9/0	65.9°–74°	0–0	0 LBV Detected	Jaclyn Catino-Davenport, Brenda McMillan
06/25/21	0718–0824	0/1-4	58°–62°	0–0	0 LBV Detected	Jaclyn Catino-Davenport, Rachel Le
07/07/21	0608–0732	0/1	65.5°–74.4°	15–20	0 LBV Detected	Jaclyn Catino-Davenport, Sonya Vargas

TABLE 2
BROWN-HEADED COWBIRD DETECTIONS

Date	Count	Latitude (Y)1	Longitude (X)[1]
4/15/2021	3	33.043830	-116.873101
5/3/2021	2	33.043900	-116.872789
5/13/2021	1	33.043720	-116.875646
5/24/2021	1	33.044053	-116.873710
5/24/2021	2	33.044191	-116.873078
6/3/2021	1	33.043708	-116.875437
6/3/2021	2	33.043790	-116.873273
6/14/2021	2	33.043905	-116.874631
6/25/2021	2	33.043920	-116.872671
6/25/2021	2	33.044164	-116.875472
7/7/2021	1	33.043701	-116.874986
7/7/2021	1	33.044243	-116.875478

[1] Coordinates are in WGS 84

Incidental Observations

Additional bird species detected during the survey are included in **Attachment A**. Incidentally-observed avian special-status species included the white-tailed kite (*Elanus leucurus*), Cooper's hawk (*Accipiter cooperii*), *and* yellow warbler (*Setophaga petechia*). White-tailed kite is a California Department of Fish and Wildlife (CDFW) fully protected species, Cooper's hawk is a CDFW watch list species, and yellow warbler is a CDFW species of special concern. The Cooper's hawk and yellow warbler species were detected during multiple surveys and the white-tailed kite was only observed during the second survey.

Conclusion

Based on the results of the protocol-level LBV surveys, the survey area contains LBV habitat but was not occupied by a breeding pair during the 2021 breeding season. The one individual heard during the May 13 survey was heard moving east out of the survey area, likely just passing through, and was not heard or seen again. No breeding attempt may have occurred in 2021 due to the current drought in the region, lack of flowing and standing water in the Santa Maria Creek, and high activity of homelessness encampments in the survey area including evidence of vegetation trimming. However, the survey area has been occupied by one breeding pair during the 2018 breeding season[2]. White-tailed kite, Cooper's hawk, and yellow warbler were also observed on-site, as well as brown-headed cowbirds.

If there are any questions regarding this report or the results, please feel free to reach out to Jaclyn Catino-Davenport at 619-719-4211 or jcatino-davenport@esassoc.com.

Sincerely,

Jaclyn Catino-Davenport

Jaclyn Catino-Davenport
Managing Biologist

[2] CalTrans. 2018. *13th Street Bridge Project. Natural Environment Study. Baseline Biological Conditions Report and Jurisdictional Delineation Report, Unincorporated Community of Ramona, San Diego County, California*. District 11-SD. August 2018.

Attachments

Figure 1: Regional Location
Figure 2: Vicinity Map
Figure 3: Natural Communities and Land Cover Types
Figure 4: 2021 Least Bell's Vireo Survey Results

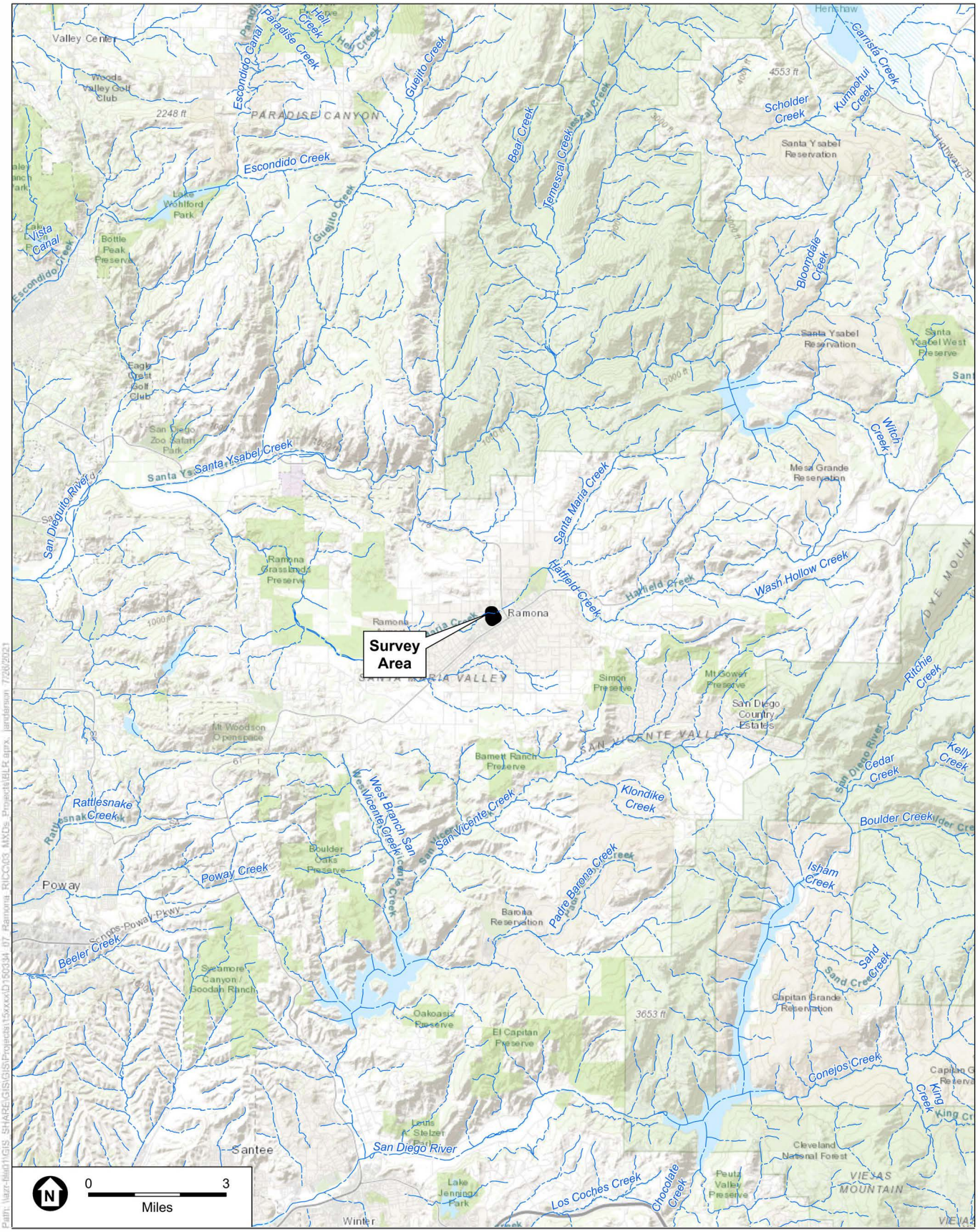
Attachment A: Faunal Compendium
Attachment B: CNDDB Forms

Certification Statement

I certify that the information in this survey report and attached exhibits fully and accurately represents my work.

Jaclyn Catino-Davenport

Jaclyn Catino-Davenport
Managing Biologist

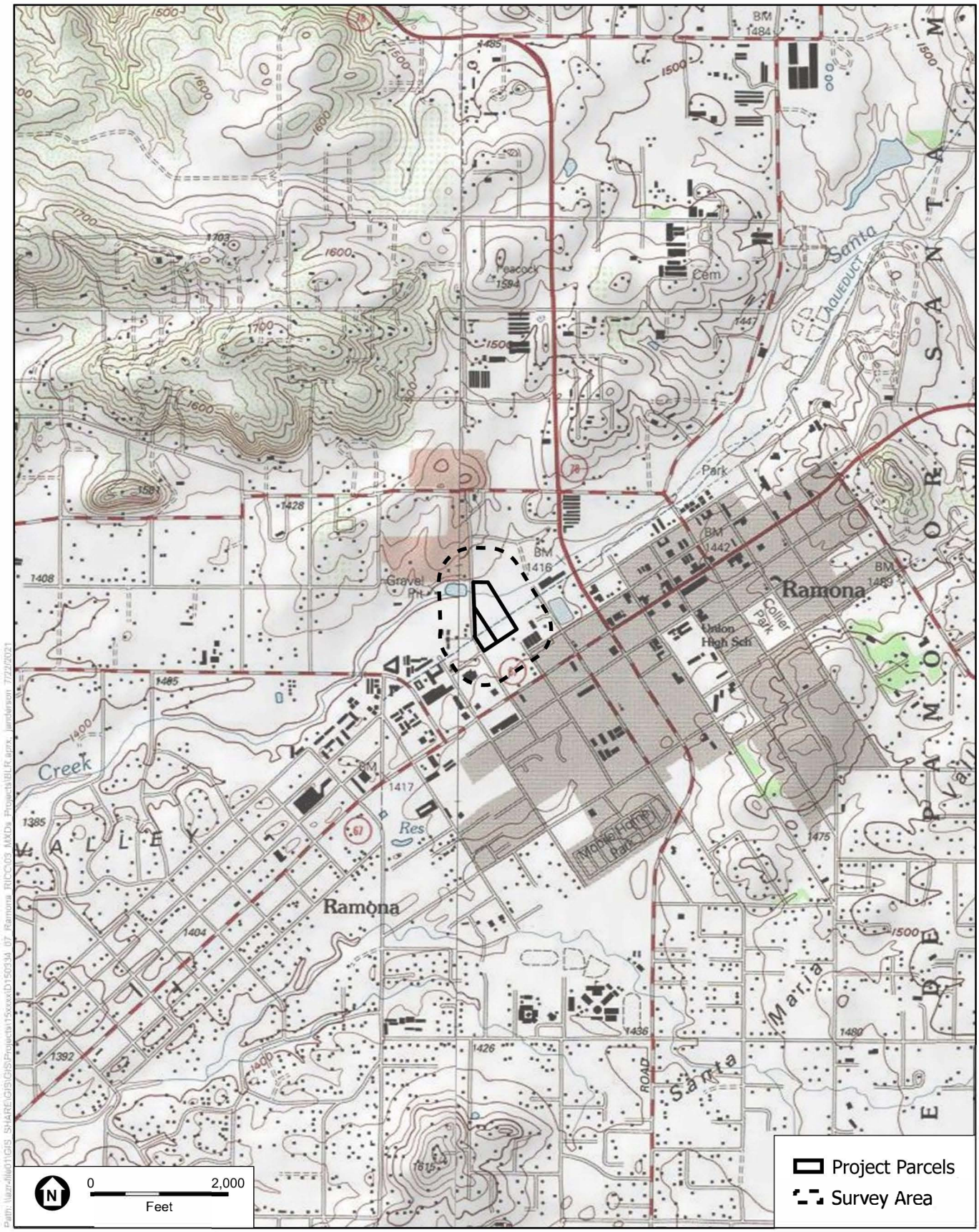


SOURCE: ESRI World Topographic Map.

Ramona Intergenerational Community Campus Affordable Housing Project

Figure 1
Regional Location

ESA

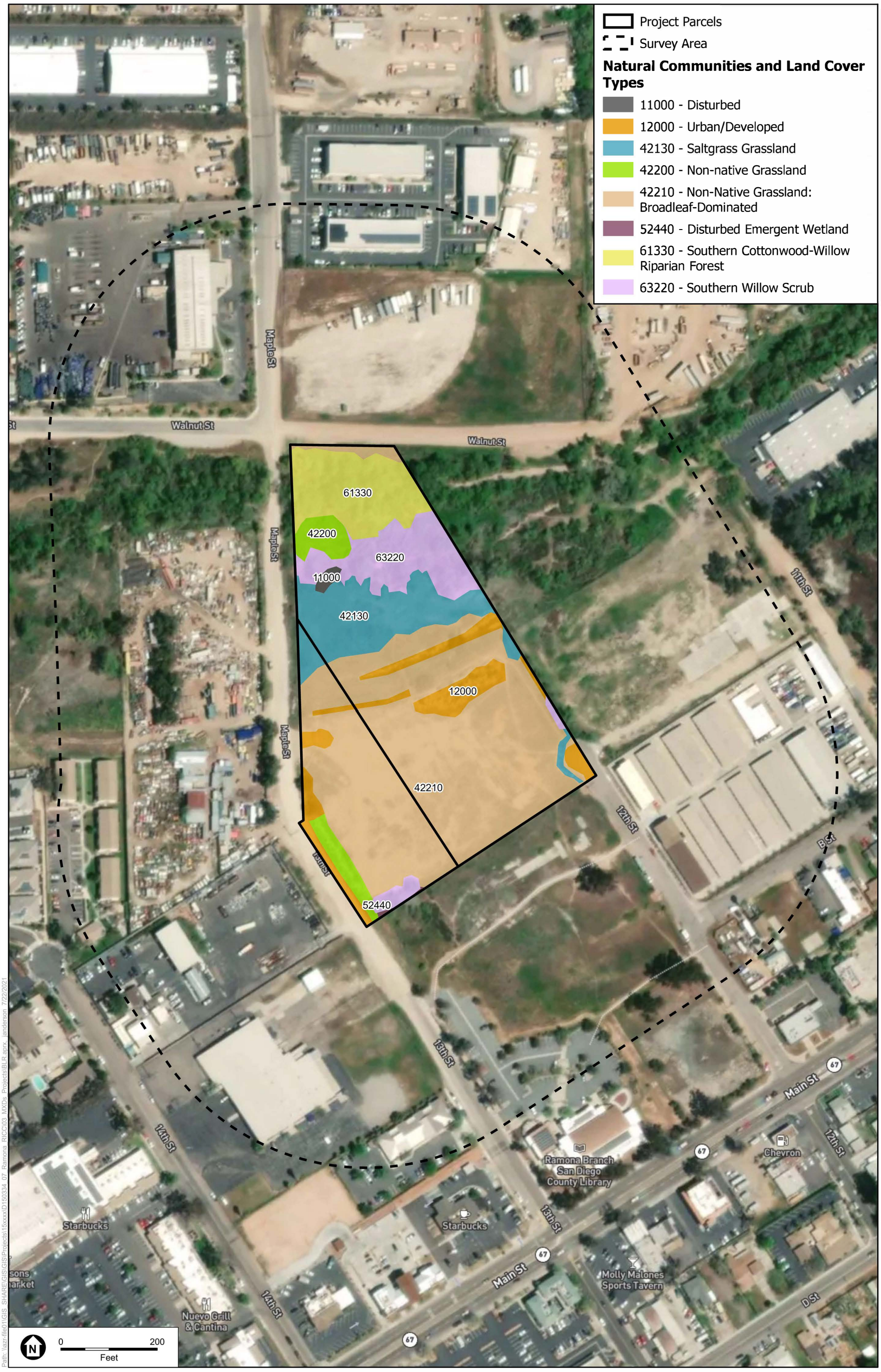


SOURCE: USGS Topographic Series (San Pasqual, Ramona), 2018.

Ramona Intergenerational Community Campus Affordable Housing Project

Figure 2
Vicinity Map

ESA



SOURCE: ESA, 2021.

Ramona Intergenerational Community Campus Affordable Housing Project

Figure 3

Natural Communities and Land Cover Types

ESA

SOURCE: ESA, 2021.

Ramona Intergenerational Community Campus Affordable Housing Project

Figure 4

2021 Least Bell's Vireo Survey Results

ESA

Attachment A
Faunal Compendium

ESA

FAUNAL COMPENDIUM

REPTILES

Scientific Name	Common Name	Status (Federal/State/Local)
LACERTILIA	**LIZARDS**	
Phrynosomatidae	**Zebratail, Earless, Horned, Spiny, Fringe-Toed Lizards**	
Sceloporus occidentalis	western fence lizard	None/None/None
Uta stansburiana	common side-blotched lizard	None/None/None

BIRDS

Scientific Name	Common Name	Status (Federal/State/Local)
ANSERIFORMES		
Anatidae	**Waterfowl**	
Anas platyrhynchos	mallard	None/None/None
GALLIFORMES		
Odontophoridae	**New World Quail**	
Callipepla californica	California quail	None/None/None
COLUMBIFORMES		
Columbidae	**Pigeons and Doves**	
* *Columba livia*	rock pigeon	None/None/None
* *Streptopelia decaocto*	Eurasian collared-dove	None/None/None
Zenaida macroura	mourning dove	None/None/None
CAPRIMULGIFORMES		
Trochilidae	**Hummingbirds**	
Calypte anna	Anna's hummingbird	None/None/None
Calypte costae	Costa's humminbird	None/None/None
Selasphorus sasin	Allen's hummingbird	None/None/None
CHARADRIIFORMES		
Charadriidae	**Plovers, Dotterels, and Lapwings**	
Charadrius vociferus	killdeer	None/None/None
PELECANIFORMES		
Ardeidae	**Herons and Egrets**	
Bubulcus ibis	cattle egret	None/None/None
CATHARTIFORMES		
Cathartidae	**New World Vultures**	
Cathartes aura	turkey vulture	None/None/Group 1

BIRDS

Scientific Name	Common Name	Status (Federal/State/Local)
ACCIPITRIFORMES		
Accipitridae	**Hawks**	
Elanus leucurus	white-tailed kite	None/FP/Group 1
Accipiter cooperii	Cooper's hawk	None/WL/Group 1
Buteo lineatus	red-shouldered hawk	None/None/Group 1
Buteo jamaicensis	red-tailed hawk	None/None/None
STRIGIFORMES		
Strigidae	**True Owls**	
Bubo virginianus	great horned owl	None/None/None
PICIFORMES		
Picidae	**Woodpeckers**	
Dryobates pubescens	downy woodpecker	None/None/None
Picoides nuttallii	Nuttall's woodpecker	None/None/None
FALCONIFORMES		
Falconidae	**Falcons and Caracaras**	
Falco sparverius	American kestrel	None/None/None
PASSERIFORMES		
Tyrannidae	**Tyrant Flycatchers**	
Contopus sordidulus	western wood-pewee	None/None/None
Empidonax difficilis	pacific-sloped flycatcher	None/None/None
Sayornis nigricans	black phoebe	None/None/None
Sayornis saya	Say’s phoebe	None/None/None
Myiarchus cinerascens	ash-throated flycatcher	None/None/None
Tyrannus vociferans	Cassin’s kingbird	None/None/None
Tyrannus verticalis	western kingbird	None/None/None
Vireonidae	**Vireo**	
Vireo bellii pusillus	least Bell’s vireo	FE/SE/NCMSCP, Group 1
Vireo gilvus	warbling vireo	None/None/None
Vireo huttoni	Hutton’s vireo	None/None/None
Corvidae	**Jays and Crows**	
Aphelocoma californica	California scrub-jay	None/None/None
Corvus brachyrhynchos	American crow	None/None/None
Corvus corax	common raven	None/None/None
Hirundinidae	**Swallows and Martins**	
Petrochelidon pyrrhonota	cliff swallow	None/None/None
Aegithalidae	**Bushtits**	
Psaltriparus minimus	bushtit	None/None/None
Troglodytidae	**Wrens**	
Thryomanes bewickii	Bewick's wren	None/None/None
Troglodytes aedon	house wren	None/None/None

BIRDS

Scientific Name	Common Name	Status (Federal/State/Local)
Sturnidae	**Starlings**	
* *Sturnus vulgaris*	European starling	None/None/None
Mimidae	**Thrashers**	
Toxostoma redivivum	California thrasher	None/None/None
Mimus polyglottos	northern mockingbird	None/None/None
Turdidae	**Thrushes**	
Sialia mexicana	western bluebird	None/None/MSCP, Group 1
Passeridae	**Old World Sparrows**	
* *Passer domesticus*	house sparrow	None/None/None
Fringillidae	**Finches**	
Haemorhous mexicanus	house finch	None/None/None
Spinus pinus	pine siskin	None/None/None
Spinus psaltria	lesser goldfinch	None/None/None
Spinus lawrencei	Lawrence's goldfinch	None/None/None
Passerellidae	**New World Sparrows**	
Melospiza melodia	song sparrow	None/None/None
Melozone crissalis	California towhee	None/None/None
Pipilo maculatus	spotted towhee	None/None/None
Icteridae	**Orioles, Grackles, and Cowbirds**	
Icterus cucullatus	hooded oriole	None/None/None
Molothrus ater	brown-headed cowbird	None/None/None
Parulidae	**Wood Warblers**	
Leiothlypis celata	orange-crowned warbler	None/None/None
Geothlypis trichas	common yellowthroat	None/None/None
Setophaga petechia	yellow warbler	None/SSC/Group 2
Setophaga coronata	yellow-rumped warbler	None/None/None
Setophaga nigrescens	black-throated gray warbler	None/None/None
Cardellina pusilla	Wilson's warbler	None/None/None
Cardinalidae	**Buntings, Grosbeaks, and Tanagers**	
Piranga ludoviciana	western tanager	None/None/None
Pheucticus melanocephalus	black-headed grosbeak	None/None/None
Passerina caerulea	blue grosbeak	None/None/None

MAMMALS

Scientific Name	Common Name	Status (Federal/State/Local)
Leporidae	**Rabbits and Hares**	
Sylvilagus audubonii	Audubon's cottontail	None/None/None
Sciuridae	**Squirrels, Marmots, and Prairie Dogs**	
Otospermophilus beecheyi	California ground squirrel	None/None/None

MAMMALS

Scientific Name	Common Name	Status (Federal/State/Local)
Carnivora	**Carnivores**	
* *Felis cactus*	Feral cat	None/None/None

[1] FE: Federally Endangered
FT: Federally Threatened
SE: State Endangered
WL: California Department of Fish and Wildlife Watch List
FP: California Department of Fish and Wildlife Fully Protected
SSC: California Department of Fish and Wildlife Species of Special Concern
NCMSCP: Covered under the Draft North County MSCP
Group 1: Animals of high sensitivity (listed or specific natural history requirements) (County)
Group 2: Animals declining but not in immediate threat of extinction or extirpation (County)
* Non-native species

Attachment B
CNDDB Forms

ESA

Mail to:
California Natural Diversity Database
California Dept. of Fish & Wildlife
P.O. Box 944209
Sacramento, CA 94244-2090
CNDDB@wildlife.ca.gov

Date of Field Work (mm/dd/yyyy): 05/13/2021

For Office Use Only
Source Code: _____ Quad Code: _____
Elm Code: _____ Occ No.: _____
EO Index: _____ Map Index: _____

Clear Form

California Native Species Field Survey Form

Print Form

Scientific Name: *Accipiter cooperii*

Common Name: Cooper's hawk

Species Found? (●) Yes ( ) No _____ If not found, why?

Total No. Individuals: 6 Subsequent Visit? (●) Yes ( ) No

Is this an existing NDDB occurrence? _____ Yes, Occ. # [X] No [ ] Unk.

Collection? If yes: _____ Number _____ Museum / Herbarium

Reporter: Jaclyn Catino-Davenport
Address: 550 West C Street Suite 750, San Diego CA
E-mail Address: jcatino-davenport@esassoc.com
Phone: 619-719-4211

Plant Information

Phenology:

_____ % vegetative _____ % flowering _____ % fruiting

Animal Information

5 # adults 1 # juveniles _____ # larvae _____ # egg masses _____ # unknown

[ ] wintering [ ] breeding [ ] nesting [ ] rookery [ ] burrow site [ ] lek [X] other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr: County of San Diego, Department of General Services

Quad Name: Ramona Elevation: 430 m

T___ R___ Sec___, ___1/4 of ___ 1/4, Meridian: H( ) M( ) S( )

T___ R___ Sec___, ___1/4 of ___ 1/4, Meridian: H( ) M( ) S( )

DATUM: **NAD27** ( ) **NAD83** ( ) **WGS84** (●)

Coordinate System: UTM Zone 10 ( ) UTM Zone 11 ( ) ***OR*** Geographic (Latitude & Longitude) (●)

Source of Coordinates (GPS, topo. map & type): GPS

GPS Make & Model: Android Phone

Horizontal Accuracy: 20 feet meters/feet

Coordinates: 33.043955, -116.873578; 33.043799, -116.875649; 33.043753, -116.876800; 33.043837, -116.873768

Habitat Description (plants & animals) *plant communities, dominants, associates, substrates/soils, aspects/slope:*

Animal Behavior *(Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):*

Two adults flying through site on 05/13/2021
Subadult perched on 05/24/2021
One adult and one juvenile flying through site on 05/24/21
Adult flying through site on 06/14/2021

Please fill out separate form for other rare taxa seen at this site.

Site Information

Overall site/occurrence quality/viability (site + population): ( ) Excellent (●) Good ( ) Fair ( ) Poor

Immediate AND surrounding land use: Urban (salvage yards, storage units, library) development

Visible disturbances: Homelessness encampments and unauthorized trails through habitat

Threats: _____

Comments:

Determination: *(check one or more, and fill in blanks)*

[ ] Keyed (cite reference): _____
[ ] Compared with specimen housed at: _____
[ ] Compared with photo / drawing in: _____
[ ] By another person (name): _____
[X] Other: Confirmed by qualified, experienced biologist

Photographs: *(check one or more)*

	Slide	Print	Digital
Plant / animal	[ ]	[ ]	[ ]
Habitat	[ ]	[ ]	[X]
Diagnostic feature	[ ]	[ ]	[ ]

May we obtain duplicates at our expense? (●) yes ( ) no

Mail to:
California Natural Diversity Database
California Dept. of Fish & Wildlife
P.O. Box 944209
Sacramento, CA 94244-2090
CNDDB@wildlife.ca.gov

For Office Use Only

Source Code: _____ Quad Code: _____

Elm Code: _____ Occ No.: _____

EO Index: _____ Map Index: _____

Date of Field Work (mm/dd/yyyy): 05/13/2021

Clear Form

California Native Species Field Survey Form

Print Form

Scientific Name: *Vireo bellii pusillus*

Common Name: Least Bell's Vireo

Species Found? (●) Yes ( ) No _____ If not found, why?

Total No. Individuals: 1 Subsequent Visit? ( ) Yes (●) No

Is this an existing NDDB occurrence? _____ Yes, Occ. # [X] No [ ] Unk.

Collection? If yes: _____ Number _____ Museum / Herbarium

Reporter: Jaclyn Catino-Davenport

Address: 550 West C Street Suite 750, San Diego CA

E-mail Address: jcatino-davenport@esassoc.com

Phone: 619-719-4211

Plant Information

Phenology:

_____ % vegetative _____ % flowering _____ % fruiting

Animal Information

1 # adults _____ # juveniles _____ # larvae _____ # egg masses _____ # unknown

[ ] wintering [X] breeding [ ] nesting [ ] rookery [ ] burrow site [ ] lek [ ] other

Location Description ***(please attach map AND/OR fill out your choice of coordinates, below)***

County: San Diego Landowner / Mgr: County of San Diego, Department of General Services

Quad Name: San Pasqual Elevation: 430 m

T____ R____ Sec____, ____¼ of ____ ¼, Meridian: H ( ) M ( ) S ( ) Source of Coordinates (GPS, topo. map & type): GPS

T____ R____ Sec____, ____¼ of ____ ¼, Meridian: H ( ) M ( ) S ( ) GPS Make & Model: Android Phone

DATUM: **NAD27** ( ) **NAD83** ( ) **WGS84** (●) Horizontal Accuracy: 20 feet meters/feet

Coordinate System: UTM Zone 10 ( ) UTM Zone 11 ( ) ***OR*** Geographic (Latitude & Longitude) (●)

Coordinates: 33.043722, -116.875418

Habitat Description (plants & animals) *plant communities, dominants, associates, substrates/soils, aspects/slope:*

Animal Behavior *(Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):*

Singing/calling

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): ( ) Excellent (●) Good ( ) Fair ( ) Poor

Immediate AND surrounding land use: Urban (salvage yards, storage units, library) development

Visible disturbances: Homelessness encampments and unauthorized trails through habitat

Threats: brown-headed cowbird parasitism

Comments:

Determination: *(check one or more, and fill in blanks)*

- [ ] Keyed (cite reference): _____
- [ ] Compared with specimen housed at: _____
- [ ] Compared with photo / drawing in: _____
- [ ] By another person (name): _____
- [X] Other: Confirmed by qualified, experienced biologist

Photographs: *(check one or more)*

	Slide	Print	Digital
Plant / animal	[ ]	[ ]	[ ]
Habitat	[ ]	[ ]	[X]
Diagnostic feature	[ ]	[ ]	[ ]

May we obtain duplicates at our expense? (●) yes ( ) no

Mail to:
California Natural Diversity Database
California Dept. of Fish & Wildlife
P.O. Box 944209
Sacramento, CA 94244-2090
CNDDB@wildlife.ca.gov

Date of Field Work (mm/dd/yyyy): 05/03/2021

For Office Use Only
Source Code: _____ Quad Code: _____
Elm Code: _____ Occ No.: _____
EO Index: _____ Map Index: _____

Clear Form

California Native Species Field Survey Form

Print Form

Scientific Name: *Elanus leucurus*

Common Name: White-tailed Kite

Species Found? (●) Yes ( ) No _____ If not found, why?

Total No. Individuals: 1 Subsequent Visit? ( ) Yes (●) No

Is this an existing NDDB occurrence? _____ Yes, Occ. # [X] No [ ] Unk.

Collection? If yes: _____ Number _____ Museum / Herbarium

Reporter: Jaclyn Catino-Davenport
Address: 550 West C Street Suite 750, San Diego CA
E-mail Address: jcatino-davenport@esassoc.com
Phone: 619-719-4211

Plant Information

Phenology:

_____ % vegetative _____ % flowering _____ % fruiting

Animal Information

1 # adults _____ # juveniles _____ # larvae _____ # egg masses _____ # unknown

[ ] wintering [ ] breeding [ ] nesting [ ] rookery [ ] burrow site [ ] lek [X] other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr: County of San Diego, Department of General Services

Quad Name: Ramona Elevation: 430 m

T___ R___ Sec___, ___¼ of ___¼, Meridian: H( ) M( ) S( ) Source of Coordinates (GPS, topo. map & type): GPS

T___ R___ Sec___, ___¼ of ___¼, Meridian: H( ) M( ) S( ) GPS Make & Model: Android Phone

DATUM: **NAD27** ( ) **NAD83** ( ) **WGS84** (●) Horizontal Accuracy: 20 feet meters/feet

Coordinate System: UTM Zone 10 ( ) UTM Zone 11 ( ) ***OR*** Geographic (Latitude & Longitude) (●)

Coordinates: 33.043047, -116.874586

Habitat Description (plants & animals) *plant communities, dominants, associates, substrates/soils, aspects/slope:*

Animal Behavior *(Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):*

Flying through site

Please fill out separate form for other rare taxa seen at this site.

Site Information

Overall site/occurrence quality/viability (site + population): ( ) Excellent (●) Good ( ) Fair ( ) Poor

Immediate AND surrounding land use: Urban (salvage yards, storage units, library) development

Visible disturbances: Homelessness encampments and unauthorized trails through habitat

Threats: _____

Comments:

Determination: *(check one or more, and fill in blanks)*

- [ ] Keyed (cite reference): _____
- [ ] Compared with specimen housed at: _____
- [ ] Compared with photo / drawing in: _____
- [ ] By another person (name): _____
- [X] Other: Confirmed by qualified, experienced biologist

Photographs: *(check one or more)*

	Slide	Print	Digital
Plant / animal	[ ]	[ ]	[ ]
Habitat	[ ]	[ ]	[X]
Diagnostic feature	[ ]	[ ]	[ ]

May we obtain duplicates at our expense? (●) yes ( ) no

Mail to:
California Natural Diversity Database
California Dept. of Fish & Wildlife
P.O. Box 944209
Sacramento, CA 94244-2090
CNDDB@wildlife.ca.gov

For Office Use Only
Source Code: _____ Quad Code: _____
Elm Code: _____ Occ No.: _____
EO Index: _____ Map Index: _____

Date of Field Work (mm/dd/yyyy): 05/03/2021

Clear Form

California Native Species Field Survey Form

Print Form

Scientific Name: *Setophaga petechia*

Common Name: Yellow Warbler

Species Found? (●) Yes ( ) No _____ If not found, why?

Total No. Individuals: 8 Subsequent Visit? (●) Yes ( ) No

Is this an existing NDDB occurrence? _____ Yes, Occ. # [X] No [ ] Unk.

Collection? If yes: _____ Number _____ Museum / Herbarium

Reporter: Jaclyn Catino-Davenport
Address: 550 West C Street Suite 750, San Diego CA
E-mail Address: jcatino-davenport@esassoc.com
Phone: 619-719-4211

Plant Information

Phenology:

_____ % vegetative _____ % flowering _____ % fruiting

Animal Information

7 # adults _____ # juveniles _____ # larvae _____ # egg masses _____ # unknown

[ ] wintering [X] breeding [ ] nesting [ ] rookery [ ] burrow site [ ] lek [ ] other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Diego Landowner / Mgr: County of San Diego, Department of General Services

Quad Name: Ramona; San Pasqual Elevation: 430 m

T____ R____ Sec____, ____¼ of ____ ¼, Meridian: H( ) M( ) S( ) Source of Coordinates (GPS, topo. map & type): GPS

T____ R____ Sec____, ____¼ of ____ ¼, Meridian: H( ) M( ) S( ) GPS Make & Model: Android Phone

DATUM: **NAD27** ( ) **NAD83** ( ) **WGS84** (●) Horizontal Accuracy: 20 feet meters/feet

Coordinate System: UTM Zone 10 ( ) UTM Zone 11 ( ) ***OR*** Geographic (Latitude & Longitude) (●)

Coordinates: 33.043802, -116.874145; 33.043526, -116.875579; 33.043787, -116.875763; 33.043738, -116.875432; 33.043734, -116.875375; 33.043465, -116.872869; 33.043902, -116.872994

Habitat Description (plants & animals) *plant communities, dominants, associates, substrates/soils, aspects/slope:*

Animal Behavior *(Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):*

Adult foraging on 05/03/2021; Adult singing/calling on 05/13/2021; Adult singing/calling on 05/24/2021; Pair foraging, singing/calling on 06/03/2021;Adult singing/calling on 06/14/2021; Adult singing/calling on 06/25/2021; Adult singing/calling on 7/7/2021

Please fill out separate form for other rare taxa seen at this site.

Site Information

Overall site/occurrence quality/viability (site + population): ( ) Excellent (●) Good ( ) Fair ( ) Poor

Immediate AND surrounding land use: Urban (salvage yards, storage units, library) development

Visible disturbances: Homelessness encampments and unauthorized trails through habitat

Threats: brown-headed cowbird parasitism

Comments:

Determination: *(check one or more, and fill in blanks)*

- [ ] Keyed (cite reference): _____
- [ ] Compared with specimen housed at: _____
- [ ] Compared with photo / drawing in: _____
- [ ] By another person (name): _____
- [X] Other: Confirmed by qualified, experienced biologist

Photographs: *(check one or more)*

	Slide	Print	Digital
Plant / animal	[ ]	[ ]	[ ]
Habitat	[ ]	[ ]	[X]
Diagnostic feature	[ ]	[ ]	[ ]

May we obtain duplicates at our expense? (●) yes ( ) no

Appendix D

USFWS 90-Day Report of 2023 Wet and Dry Season Fairy Shrimp Surveys

ESA

BLACKHAWK Environmental

1720 Midvale Drive
San Diego, CA, 92105
Phone: 619.972.7932
Phone: 619.972.8714
www.blackhawkenv.com

September 13, 2023

Ms. Stacey Love
Recovery Permit Coordinator
U.S. Fish and Wildlife Service – Carlsbad Fish and Wildlife Office
2177 Salk Ave, Suite 250
Carlsbad, CA 92008
Email: stacey_love@fws.gov
Office: (760) 431-9440 x 263

Re: USFWS 90-Day Report of 2023 Wet and Dry Season Fairy Shrimp Surveys for the Paseo Norte Senior Affordable Housing Project, Community of Ramona, San Diego County, California

Dear Ms. Love:

The County of San Diego Department of General Services (DGS) contracted Environmental Science Associates (ESA), with Blackhawk Environmental (Blackhawk) as a sub-consultant, to conduct one round of United States Fish & Wildlife Service (USFWS) protocol wet season surveys for the federally endangered San Diego fairy shrimp (*Branchinecta sandiegonensis:* BRSA) and/or the federally endangered Riverside fairy shrimp (*Streptocephalus woottoni*; STWO) within the Paseo Norte Senior Affordable Housing Project (Project) during the wet season of early 2023. Dry season fairy shrimp surveys were conducted by Alden Environmental, Inc. (Alden) during the dry season of 2023 (Attachment C). The survey area included the proposed Project development footprint, plus 100 feet around the footprint (**Figure 1**).

Initial survey efforts focused on identifying the locations of all vernal pools, basins, depressions, creeks and road ruts (collectively called "basins" for this report) within the survey area that could provide suitable fairy shrimp habitat and mapping each feature to submetric accuracy. This yielded a total of 54 basins that were mapped within the survey area and sampled during the wet season surveys. The second phase of the survey effort included inundation surveys following significant rain events (generally considered greater than 0.25 inch of rainfall within a 24-hour period) and wet season surveys approximately every seven days following initial inundation until the basins dried. Inundation and wet season surveys were reinitiated as necessary following rain events until the end of the wet season. The wet season surveys provided BRSA/STWO/non-listed fairy shrimp presence/absence statuses for all 54 basins within the survey area. The third phase of the survey effort included dry season soil collection and sampling to determine BRSA/STWO/non-listed fairy shrimp presence/absence status that the wet season surveys may not have yielded. A total of 40 of the 54 mapped basins were able to be sampled during the dry season surveys; 14 basins could not be sampled due to loss from road grading activities during the wet season surveys (basins 4, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 20, 26 and 53). The overall effort was done in the attempt to satisfy one full season of USFWS protocol fairy shrimp surveys for the survey area.

The early 2023 wet season resulted in very high precipitation levels in southern California, and enough rain events occurred to inundate all 54 sampled basins at least once during the wet season sampling period. However, not all the basins retained surface water seven days after the rain events, resulting in a subset of basins that were sampled on any given survey. That subset further decreased when wet season surveys occurred approximately every seven days afterwards until all the basins dried. Regardless, many basins persisted long enough to facilitate fairy shrimp life history functions from hatching through death. Therefore, wet season surveys were not able to be conducted consistently in all 54 basins, but data was able to be collected from the pools that retained water long enough to support fairy shrimp during the early 2023 wet season to result in useful data. In addition, dry season results yielded additional presence/absence data (see Attachment C for the full report). This report includes sections on project location and description, survey methods, survey results, discussion, conclusion, surveyor certification and references sections. Attachments include: A) Project Figures, B) Wildnote Survey Forms and Data Sheets and C) Dry Season Fairy Shrimp Sampling Results.

Project Location and Description

The proposed Project is located in unincorporated community of Ramona in northern San Diego County west of State Route 78 and north of State Route 67. The Project is located on private parcels, Assessor Parcel Number (APN) 281-182-17 and 281-182-18 (Project site), on the east side of where Maple Street turns into 13th Street. The Project site is generally bound by Walnut Street and Santa Maria Creek to the north; the terminus of 12th Street and vacant parcels to the east; vacant land with multiple degraded concrete pads to the south; and Maple Street/13th Street and a salvage yard to the west. It is within an unsectioned portion of Township 13 South and Range 1 East of the Ramona and San Pasqual, California quadrangle United States Geological Survey (USGS) 7.5-minute topographic quadrangles.

The proposed Project would include the development of affordable senior residential housing, comprised of 100 residential units, a senior center, a Program for All-Inclusive Care for the Elderly (PACE) Wellness Center, open space uses, and associated parking. The approximately 1,800 square foot (sf) senior center would be located within the two-story residential building. The approximately 5,000 sf single-story PACE Wellness Center would be located west of the residential building. The PACE Wellness Center would include a lobby with reception area, exam rooms, physical therapy area, staff lounge and locker rooms, storage and service spaces, and restrooms. Implementation of the proposed Project would require the construction of utility services and relocation (or undergrounding) of utility lines, including water, wastewater, storm drainage, electricity, natural gas, telecommunications, and solid waste disposal areas. The proposed Project would include a public park located north of the residential and PACE Wellness Center uses, extending to the Santa Maria Creek. The public park area would be vegetated with shade trees and grasses and would include pickleball courts and playground. In addition, a looped multipurpose trail would span the perimeter of the southern portion of the public park area, with multiple shade structures and picnic benches located at various points along the trail.

Survey Methods

USFWS protocol-level surveys included one round of wet season surveys and one round of dry season surveys according to USFWS Pacific Southwest Region Survey Guidelines for the Listed Large Branchiopods (dated November 13, 2017). A survey notification from USFWS-permitted fairy shrimp Blackhawk biologist Kris Alberts (USFWS permit TE039640-5) to the USFWS was sent via email on February 6, 2023. Following this notification, wet season protocol fairy shrimp surveys were conducted within the survey area by USFWS-permitted fairy shrimp biologists and data assistants during the early 2023 wet

season. Wet season surveys typically occur between October and May. Wet season surveys included inundation surveys of the 54 basins to determine if they supported more than 3 centimeters of standing water within 24 hours after a rain event. Following initial inundation of basins, surveys were scheduled at approximate 7-day intervals and continued until the basins dried.

Following the USFWS survey notification, significant rain events at the Ramona Airport National Oceanic and Atmospheric Administration (NOAA) weather station were noted from February 12 to 14, 2023 (0.50 inches across three consecutive days with precipitation); February 21 to 28, 2023 (2.54 inches across eight consecutive days with precipitation); March 14 to 15, 2023 (1.77 inches across two consecutive days with precipitation); March 19 to 23, 2023 (2.32 inches across five consecutive days with precipitation); March 29 and 30, 2023 (0.84 inches across two consecutive days with precipitation); and May 1 to 5, 2023 (0.36 inches across five consecutive days with precipitation). Any basins with 3 centimeters or more of water during the inundation surveys were sampled approximately seven days later (if water was still present), with subsequent surveys scheduled approximately seven days apart until the basins dried up; any basins found dry during the inundation surveys were not sampled during the wet season surveys.

The wet season surveys occurred on February 8, 15 and 21; March 2, 9, 16, 24 and 31; April 7, 14 and 21; and May 12, 2023 (Table 1). Inundation surveys were conducted between periods of drying primarily within 24 hours of significant rain events that preceded the wet season surveys to document which basins contained 3 centimeters or more of water following the rain events; inundation surveys were conducted on February 15 and March 2, 2023 by Blackhawk biologists Kris Alberts and Lorena Bernal; March 16, 2023 by Blackhawk biologists Lorena Bernal and Katie Quint; March 24, 2023 by Blackhawk biologists Kris Alberts, Lorena Bernal, Andy Steyers and Desiree Johnson; March 31, 2023 by Blackhawk biologists Kris Alberts and Lauren Marshall; and May 11 by Blackhawk biologist Hayley Milner. Inundation surveys were combined with wet season surveys when timing allowed.

The permitted biologist utilized mesh nets, pipettes and/or measuring cups to collect live fairy shrimp and/or co-occurring aquatic invertebrates for viewing under 10X to 30X hand lenses. Adult fairy shrimp were to be identified to the *Branchinecta* species level in this manner by the diagnostic morphology of the distal ends of adult male antennas and the paired or non-paired dorsolateral processes of adult females. Data was collected on USFWS-approved standardized data forms or via a modified USFWS form using the Wildnote application. Initial inundation surveys were conducted following any subsequent significant rain event after partial or total drying of the pools. If rainfall and/or temperatures were not favorable for surveying, a slightly altered survey schedule was followed. Co-occurring aquatic invertebrate species were identified to the Family level and documented on the Wildnote survey forms and data sheets. Except for fairy shrimp voucher specimens, all collected animals were released back into the basin from which they were observed following identification and documentation.

In addition to species identification methods, each basin was measured for its average and maximum depths, approximate present surface area (length X width, or circular area calculation) and water temperature at the time of sampling. Maximum surface area dimensions were mapped to submetric accuracy during the February and March inundation surveys by Blackhawk biologists Kris Alberts and Lorena Bernal (Table 2). Habitat conditions and any other pertinent notes were also documented following USFWS protocol. Finally, digital photographs of each basin that contained water during sampling were collected and included with the Wildnote survey forms (Attachment B).

Wet season survey conditions are presented in Table 1.

Table 1. Wet Season Survey Conditions

Date	Personnel	Time	Weather Conditions
2/8/2023	KA	1000-1115	62°-68°, calm winds, clear skies, no precipitation
2/15/2023	KA, LB	1043-1236	50°-55°, windy, clear skies, no precipitation
2/21/2023	KA	1000-1050	59°-61°, calm winds, sunny, no precipitation
3/2/2023	KA, LB	0930-1245	52°-61°, calm winds, sunny, no precipitation
3/9/2023	LB, KQ	0941-1125	64°-68°, calm winds, sunny, no precipitation
3/16/2023	LB, KQ	0940-1310	52°-56°, calm winds, overcast to clear, no precipitation
3/24/2023	LB, DJ, KA, AS	0930-1440	52°-62°, calm winds, mostly cloudy, no precipitation
3/31/2023	KA, LM	0850-1415	50°-66°, calm winds, mostly sunny, no precipitation
4/7/2023	KA, DJ	0900-1020	58°-61°, calm winds, mostly sunny, no precipitation
4/14/2023	KA, MA	0945-1115	57°-60°, calm winds, overcast, no precipitation
4/21/2023	KA	0920-0950	74°-77°, calm winds, sunny, no precipitation
5/12/2023	KA	0915-1000	58°-59°, calm winds, overcast, no precipitation

Conditions: °F = degrees Fahrenheit. mph = miles per hour.
Biologists: KA = Kris Alberts, LB = Lorena Bernal, TG = Tawni Gotbaum, SR = Seth Reimers, HM = Hayley Milner, DJ = Desiree Johnson, KQ = Katie Quint, AS = Andy Steyers, RQ = Ryan Quilley, LM = Lauren Marshall, MA = Mustafa Abou El Ella

Dry season methods are provided in Attachment C.

Results

Wet season surveys were conducted at all basins with 3 centimeters or more of standing water following 24 hours of significant rain events or within one week of a wet season survey (**Figure 3-1** through **3-5**). At no point during the wet season surveys were all 54 basins inundated with water at the same time; therefore, each wet season survey included a subset of the 54 basins. In addition, in the intervening days between the inundation surveys and the follow-up wet season surveys, some basins dried up, resulting in an even smaller subset of basins that could be sampled for aquatic invertebrates and fairy shrimp.

No listed fairy shrimp species were found present in the survey area during the wet season survey; however, two individual versatile fairy shrimp (*Branchinecta lindahli*) were found present in basin #2 on April 14, 2023, and less than 100 were found again in basin #2 on May 12, 2023. Basin #2 is on a dirt road that was regularly driven through, and it is possible that the fairy shrimp may have occurred there due to deposition by a vehicle's tires from another location. A voucher of three females and three males was collected from basin #2 on the May 12, 2023 survey and was deposited at the Natural History Museum of Los Angeles County on August 25, 2023. All wet season survey results and photographs are included in Attachment B.

Dry season results yielded *Branchinecta* cysts from basins #1 (one cyst), #2 (15 cysts) and #3 (three cysts). Subsequent hatching of these cysts from basins #2 and #3 revealed that the cysts were of versatile fairy shrimp; only one cyst was collected from basin #1, but it was not able to be hatched (Attachment C). Since all observed fairy shrimp from nearby basins # 2 and 3 were versatile fairy shrimp,

it is assumed that the cyst from basin #1 was likely also versatile fairy shrimp.

Combining the wet season and dry season results, no San Diego fairy shrimp or Riverside fairy shrimp were detected on the Project site.

Table 2 lists the surveyed basins and their corresponding maximum surface areas.

Table 2. Maximum Surface Area

Basin ID	Surface Area	Basin ID	Surface Area	Basin ID	Surface Area	Basin ID	Surface Area
01	10,890 ft.^{2}	19	112 ft.^{2}	37	948 ft.^{2}	55	N/A*
02	707 ft.^{2}	20	112.4 ft.^{2}	38	37 ft.^{2}	56	N/A*
03	5,830 ft.^{2}	21	2,232 ft.^{2}	39	24 ft.^{2}	57	N/A*
04	128 ft.^{2}	22	374 ft.^{2}	40	229 ft.^{2}	58	N/A*
05	161 ft.^{2}	23	242 ft.^{2}	41	502 ft.^{2}	59	265 ft.^{2}
06	11 ft.^{2}	24	73 ft.^{2}	42	208 ft.^{2}		
07	206 ft.^{2}	25	80 ft.^{2}	43	988 ft.^{2}		
08	192 ft.^{2}	26	282 ft.^{2}	44	302 ft.^{2}		
09	97 ft.^{2}	27	133 ft.^{2}	45	22 ft.^{2}		
10	97 ft.^{2}	28	1,280 ft.^{2}	46	620 ft.^{2}		
11	554 ft.^{2}	29	182 ft.^{2}	47	34 ft.^{2}		
12	1,311 ft.^{2}	30	688 ft.^{2}	48	6 ft.^{2}		
13	479 ft.^{2}	31	13 ft.^{2}	49	328 ft.^{2}		
14	277 ft.^{2}	32	18 ft.^{2}	50	23 ft.^{2}		
15	109 ft.^{2}	33	341 ft.^{2}	51	17 ft.^{2}		
16	89 ft.^{2}	34	288 ft.^{2}	52	103 ft.^{2}		
17	5 ft.^{2}	35	878 ft.^{2}	53	151 ft.^{2}		
18	94 ft.^{2}	36	22 ft.^{2}	54	N/A*		

*Outside of the survey area boundary

Conclusion

During the early 2023 wet season survey and the 2023 dry season survey, none of the 54 basins in the survey area were documented with listed fairy shrimp present, and only two basins (#2 and #3) had the non-listed versatile fairy shrimp present. The absence of listed fairy shrimp species suggests that the 54 basins within the survey area are currently devoid of listed fairy shrimp species.

If you have any questions regarding this report, please feel free to call me at 619-972-8714 or e-mail me at kris@blackhawkenv.com, and I will address all questions and concerns.

Sincerely,

Kris Alberts

Kris Alberts
Principal Biologist
USFWS Permit TE 039640-5

ATTACHMENTS

A: Project Figures

B: Wildnote Survey Forms and Data Sheets

C: Dry Season Fairy Shrimp Sampling Results

SURVEYOR CERTIFICATION

I certify that the information in this survey report and attached exhibits fully and accurately represents my work.

Kris Alberts (USFWS Permit TE 039640-5)

Lorena Bernal (USFWS Permit TE 14749C-2)

REFERENCES

California Department of Fish and Wildlife (CDFW). 2023 (January). Natural Diversity Database. Special Animals List. 136 pp.

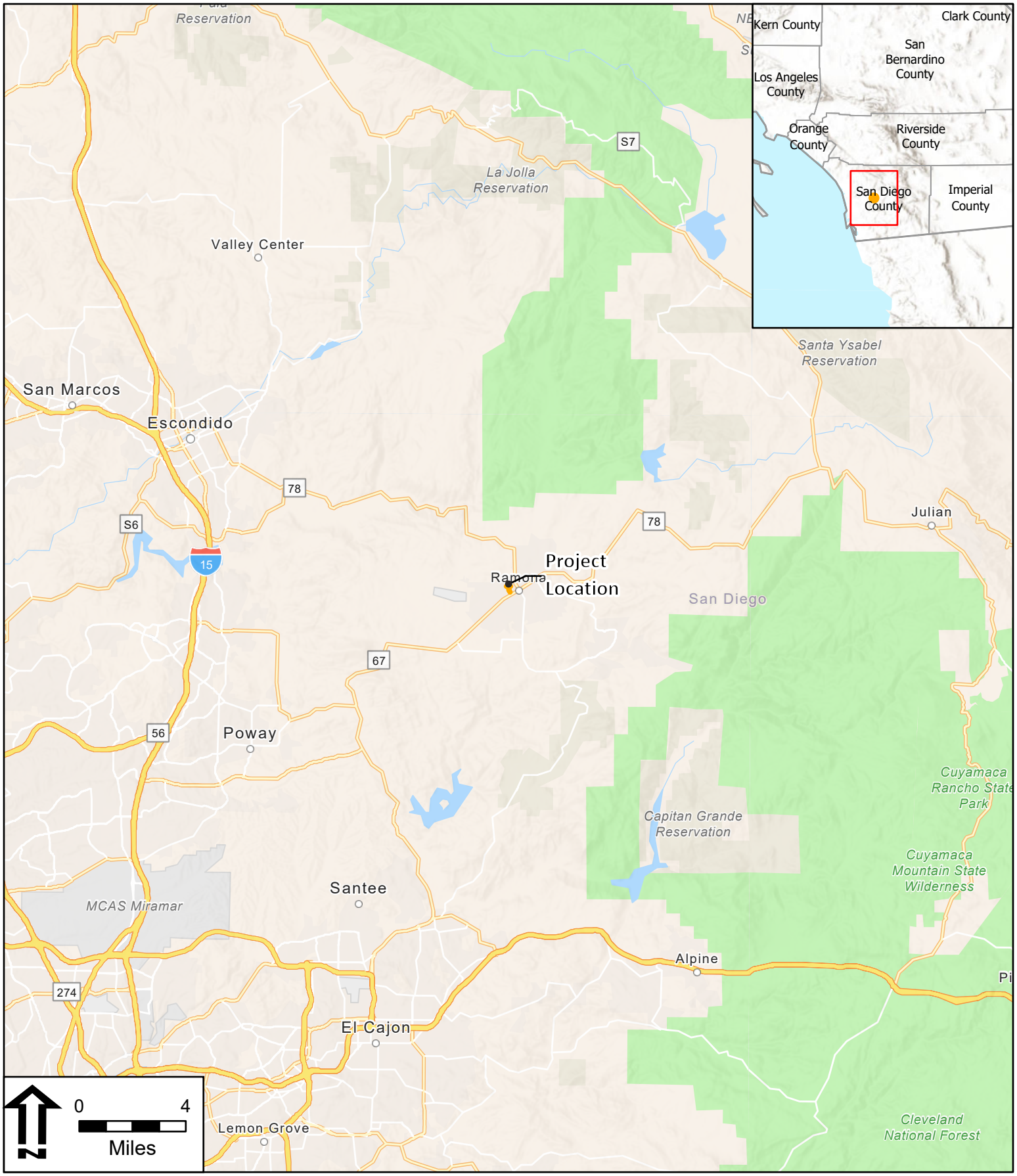
County of San Diego. 1998. *Implementing Agreement by and between United States Fish and Wildlife Service, California Department of Fish and Game, County of San Diego*. County of San Diego Multiple Species Conservation Program. March 17.

US Fish & Wildlife Service (USFWS). 2017. USFWS Pacific Southwest Region Survey Guidelines for the Listed Large Branchiopods. November 13, 2017.

US Geological Service. 1975. 7.5-minute quadrangles: *Ramona*, California. Original Print 1967. Photo revised 1975.

ATTACHMENT A

Project Figures



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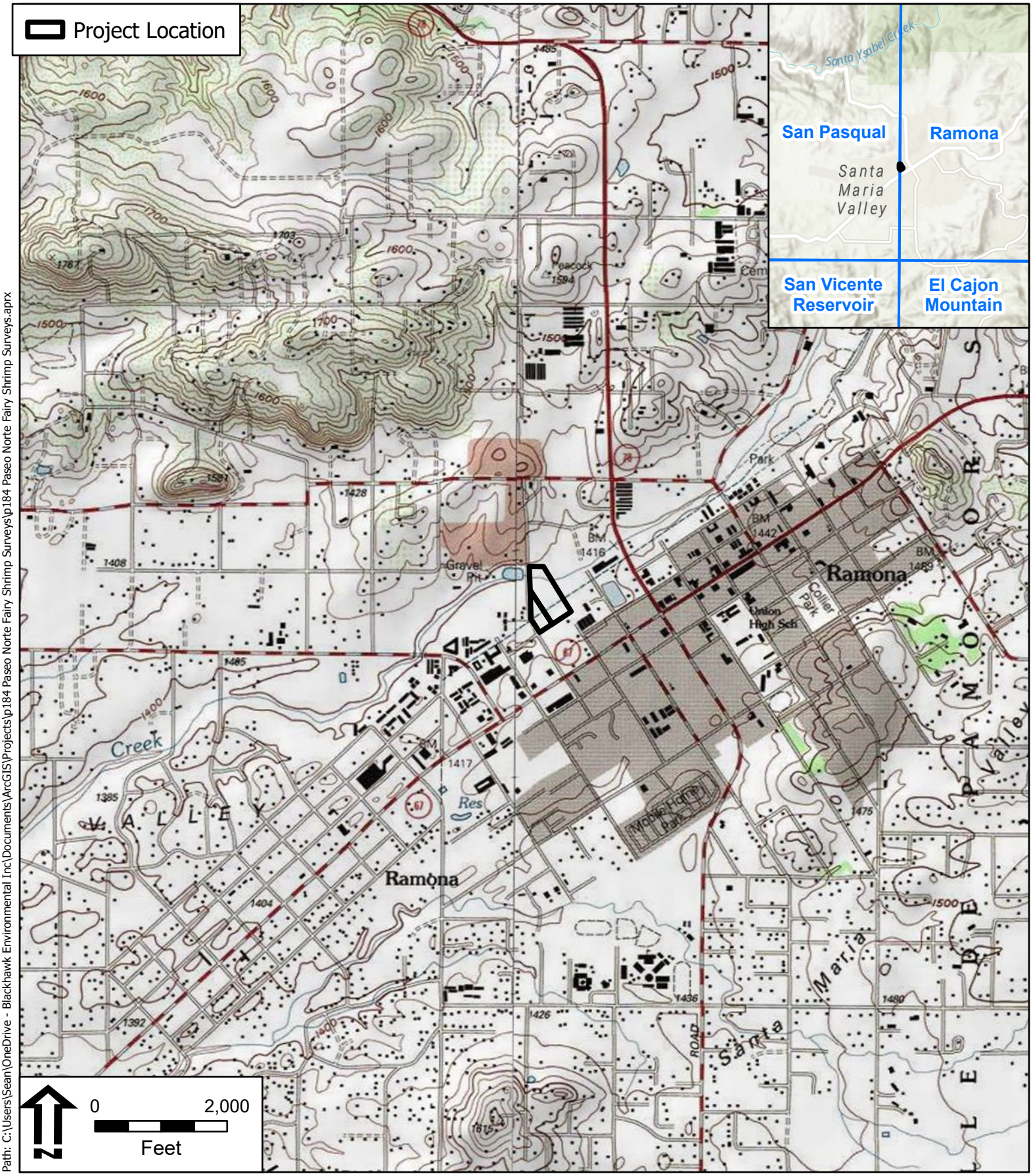
Source: ESRI, 2023; Blackhawk Environmental, 2023

Paseo Norte Fairy Shrimp Surveys

Blackhawk Environmental

Figure 1

Regional Location



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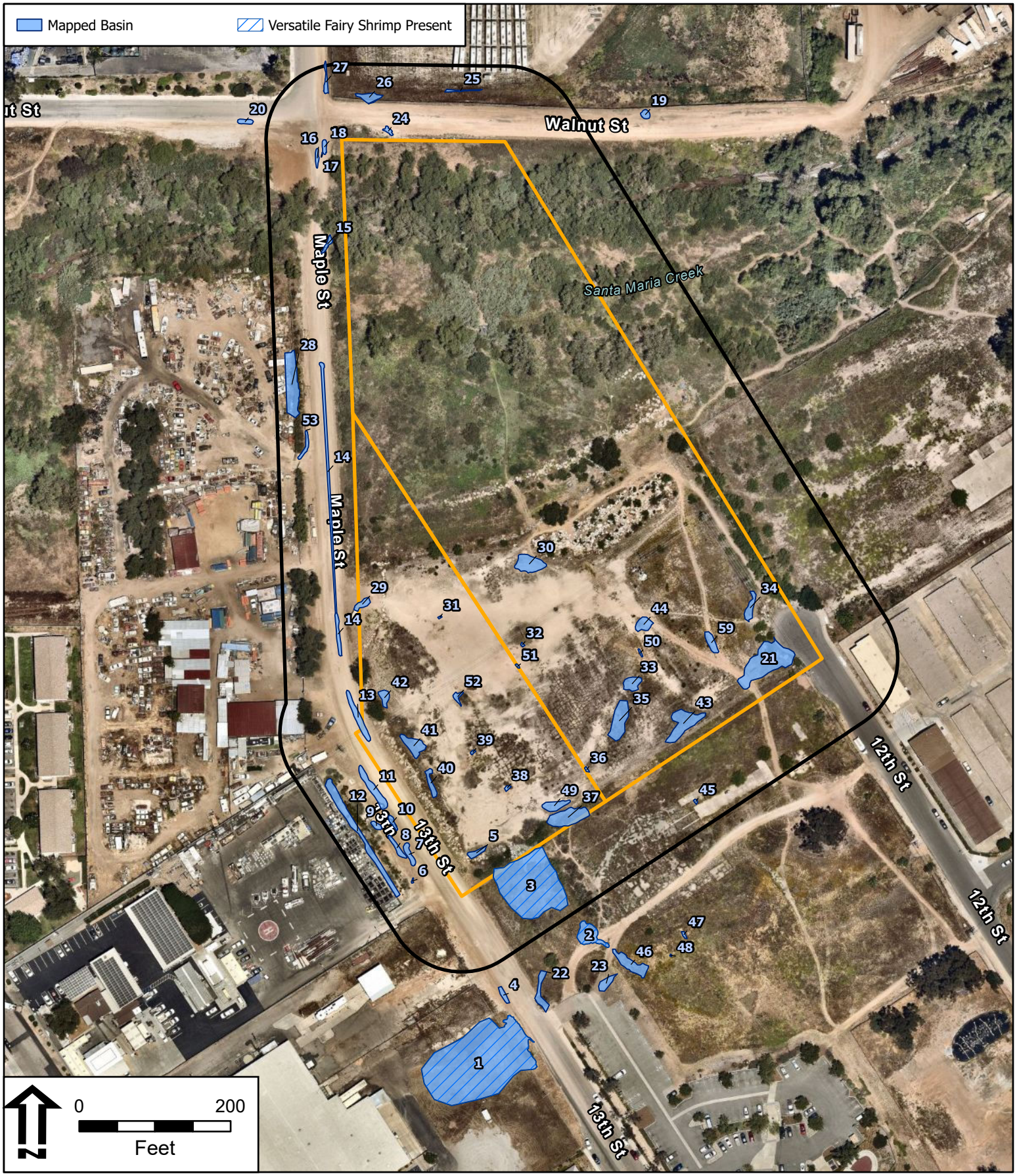
Source: ESRI, 2023; Blackhawk Environmental, 2023;
San Pasqual, Romona, San Vicente Reservoir,
El Cajon Mountain 7.5 minute U.S. Geological Survey Topoquads

Paseo Norte Fairy Shrimp Surveys

Blackhawk Environmental

Figure 2

Project Vicinity



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Source: ESRI, 2023; Nearmap, 2023; Blackhawk Environmental, 2023;

Paseo Norte Fairy Shrimp Surveys

Figure 3

Fairy Shrimp Survey Results

ATTACHMENT B

Wildnote Survey Forms and Data Sheets

BIO-13 U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods v3

Project	Paseo Norte Senior Affordable Housing Project
ID	314401
Survey Date	02/08/2023
User	Kris Alberts
Project Name	Paseo Norte Fairy Shrimp Surveys
County	San Diego County
Surveyors	Kris Alberts
Permit #	TE-039640-5
Time (Start-End)	1000-1115
Weather Conditions (Start-End)	Sunny-Sunny
Temperature (Start-End; °F)	62-68
VP Survey Data 1	
Feature ID #	1
Air Temp (°F)	62
Water Temp (°F)	53.5
Depth Average (cm)	5
Depth Est. Max. (cm)	16
Surface Area Present	120
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	true
Crustaceans-OSTRACODS (Seed Shrimp)	true
Crustaceans-CLADOCERA (Water Fleas)	true
Insects-COLEOPTERA (Aquatic Beetles)	true
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	true
Insects-DIPTERA CULICIDAE (Mosquitoes)	true
Platyhelminths (flatworms)	false
Notes	Also contains roundworms, crayfish

Habitat Condition	DT
Photo	

Pool 1 looking south

VP Survey Data 2	
Feature ID #	2
Air Temp (°F)	64
Water Temp (°F)	56.5
Depth Average (cm)	14
Depth Est. Max. (cm)	20
Surface Area Present	28
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	true
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	true
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	On dirt road
Habitat Condition	DT
Photo	

Pool 2 looking northeast.

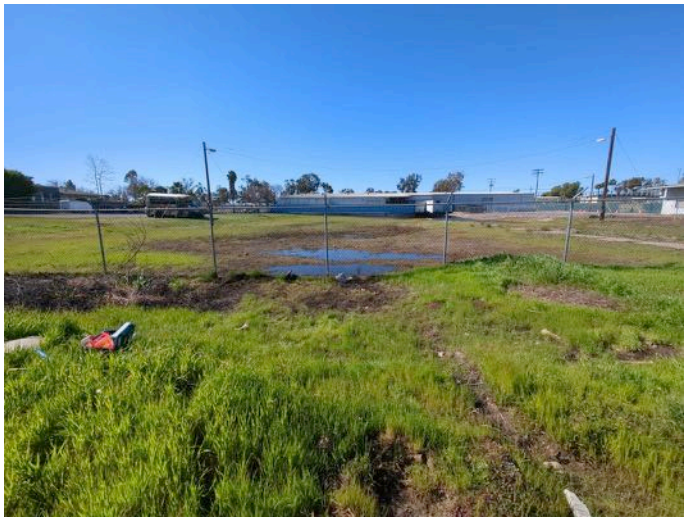
VP Survey Data 3	
Feature ID #	3
Air Temp (°F)	65
Water Temp (°F)	55.3
Depth Average (cm)	14
Depth Est. Max. (cm)	22
Surface Area Present	380
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	true
Crustaceans-CLADOCERA (Water Fleas)	true
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	true
Platyhelminths (flatworms)	false
Notes	Baja California tree frog tadpoles present.
Habitat Condition	CP, AB
Photo	

Pool 3, looking north

BIO-13 U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods v3

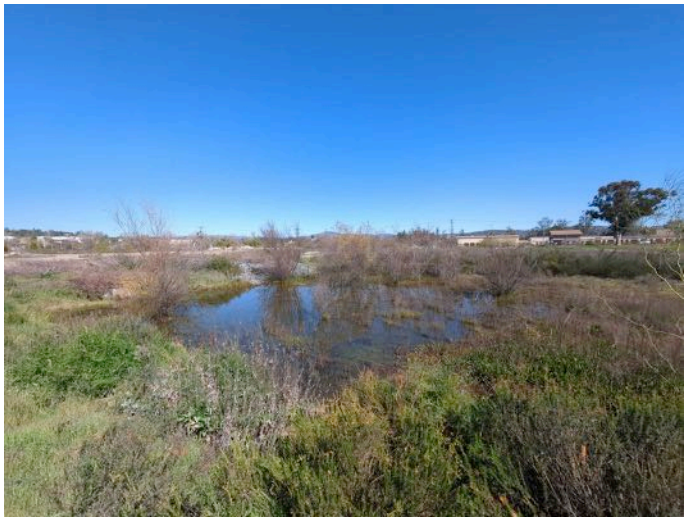
Project	Paseo Norte Senior Affordable Housing Project
ID	316044
Survey Date	02/15/2023
User	Lorena Bernal
Project Name	Ramona Grasslands Fairy Shrimp Surveys
County	San Diego County
Surveyors	Kris Alberts, Lorena Bernal
Permit #	TE-039640-5, TE-14749C-3
Time (Start-End)	1043-1236
Weather Conditions (Start-End)	Sunny, no clouds, no precipitation, windy
Temperature (Start-End; °F)	50-55
VP Survey Data 1	
Feature ID #	1
Air Temp (°F)	50
Water Temp (°F)	49.2
Depth Average (cm)	1
Depth Est. Max. (cm)	2
Surface Area Present	45
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	true
Crustaceans-OSTRACODS (Seed Shrimp)	true
Crustaceans-CLADOCERA (Water Fleas)	true
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	true
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Could not sample beyond fence (west)

Habitat Condition	DT
Photo	



VP Survey Data 2	
Feature ID #	2
Air Temp (°F)	50
Water Temp (°F)	50
Depth Average (cm)	14
Depth Est. Max. (cm)	25
Surface Area Present	66
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	true
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	true
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	
Habitat Condition	DTT
Photo	

VP Survey Data 3	
Feature ID #	3
Air Temp (°F)	50
Water Temp (°F)	51.6
Depth Average (cm)	15
Depth Est. Max. (cm)	24
Surface Area Present	542
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	true
Crustaceans-OSTRACODS (Seed Shrimp)	true
Crustaceans-CLADOCERA (Water Fleas)	true
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Unidentified beetle larvae, and Baja California Chorus frog tadpoles (Pseudacris hypochondriaca hypochondriaca)
Habitat Condition	CP, AB
Photo	



BIO-13 U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods v3

Project	Paseo Norte Senior Affordable Housing Project
ID	317116
Survey Date	02/21/2023
User	Kris Alberts
Project Name	Paseo Norte fairy shrimp surveys
County	San Diego County
Surveyors	Kris Alberts
Permit #	TE-039640-5
Time (Start-End)	1000-1050
Weather Conditions (Start-End)	Sunny-sunny
Temperature (Start-End; °F)	59-61
VP Survey Data 1	
Feature ID #	2
Air Temp (°F)	59
Water Temp (°F)	60
Depth Average (cm)	12
Depth Est. Max. (cm)	19
Surface Area Present	38
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	true
Crustaceans-CLADOCERA (Water Fleas)	true
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Turbid

Habitat Condition	DTT
Photo	

Pool 2, looking

VP Survey Data 2	
Feature ID #	3
Air Temp (°F)	60
Water Temp (°F)	64.2
Depth Average (cm)	12
Depth Est. Max. (cm)	19
Surface Area Present	270
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	true
Crustaceans-CLADOCERA (Water Fleas)	true
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	true
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	All other pools were dry. Nematodes, small fly larvae, Baja California treefrog tadpoles
Habitat Condition	CP
Photo	

Pool 3, looking N

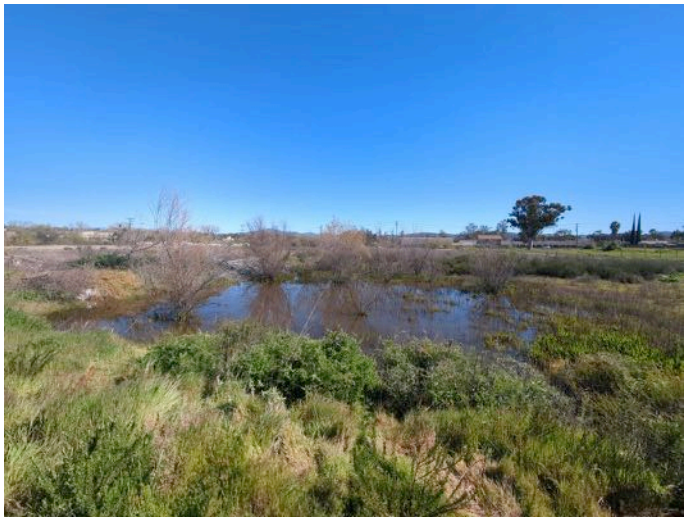
BIO-13 U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods v3

Project	Paseo Norte Senior Affordable Housing Project
ID	319240
Survey Date	03/02/2023
User	Lorena Bernal
Project Name	Ramona Grasslands Fairy Shrimp Surveys
County	San Diego County
Surveyors	Lorena Bernal, Kris Alberts
Permit #	TE-14749C-3, TE-039640-5
Time (Start-End)	0930-1230
Weather Conditions (Start-End)	Sunny, no clouds, no precipitation, light winds
Temperature (Start-End; °F)	52-54
VP Survey Data 1	
Feature ID #	Vernal Pool #2
Air Temp (°F)	52
Water Temp (°F)	53.4
Depth Average (cm)	17
Depth Est. Max. (cm)	28
Surface Area Present	78
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	true
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	true
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Roundworms, Baja California tree frog tadpoles

Habitat Condition	DTT
Photo	

Facing NW

VP Survey Data 2	
Feature ID #	Vernal Pool #3
Air Temp (°F)	52
Water Temp (°F)	51.9
Depth Average (cm)	18
Depth Est. Max. (cm)	28
Surface Area Present	542
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	true
Crustaceans-OSTRACODS (Seed Shrimp)	true
Crustaceans-CLADOCERA (Water Fleas)	true
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Baja California tree frog tadpoles
Habitat Condition	CP
Photo	



Facing NE

VP Survey Data 3	
Feature ID #	Vernal Pool #1
Air Temp (°F)	
Water Temp (°F)	
Depth Average (cm)	
Depth Est. Max. (cm)	
Surface Area Present	
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	No collection this week, as was dry last week. Inundated this week, therefore will collect next week. updated size of pool
Habitat Condition	
Photo	None

VP Survey Data 4	
Feature ID #	all other vernal pools

Air Temp (°F)	
Water Temp (°F)	
Depth Average (cm)	
Depth Est. Max. (cm)	
Surface Area Present	
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Vernal Pools 15/14 were not updated for mapping as there was water flow connected to Santa Maria Creek and was actively flowing at the time of the survey. no discernable pools of standing (not flowing) water. Only standing water /pooled areas were assessed.
Habitat Condition	
Photo	None

BIO-13 U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods v3

Project	Paseo Norte Senior Affordable Housing Project
ID	321400
Survey Date	03/09/2023
User	Katie Quint
Project Name	Paseo Norte Senior Affordable Housing Project
County	San Diego County
Surveyors	L. Bernal, K. Quint
Permit #	TE-14749C-3
Time (Start-End)	09:41-11:25
Weather Conditions (Start-End)	Sunny, light wind
Temperature (Start-End; °F)	64-68
VP Survey Data 1	
Feature ID #	VP1
Air Temp (°F)	64
Water Temp (°F)	43.2
Depth Average (cm)	8
Depth Est. Max. (cm)	18
Surface Area Present	700
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	true
Crustaceans-CLADOCERA (Water Fleas)	true
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Tadpole- Baja California tree frog; didn't sample west of chainlink fence

Habitat Condition	DT, AB
Photo	

SW view of VP1

VP Survey Data 2	
Feature ID #	VP#2
Air Temp (°F)	65
Water Temp (°F)	61
Depth Average (cm)	7
Depth Est. Max. (cm)	22
Surface Area Present	60
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	true
Crustaceans-OSTRACODS (Seed Shrimp)	true
Crustaceans-CLADOCERA (Water Fleas)	true
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	true
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	true
Platyhelminths (flatworms)	false
Notes	Odonata (damselfly larvae), turbid
Habitat Condition	DTT, AB
Photo	

E view of VP#2

VP Survey Data 3	
Feature ID #	VP#3
Air Temp (°F)	65
Water Temp (°F)	62
Depth Average (cm)	12
Depth Est. Max. (cm)	15
Surface Area Present	530
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	true
Crustaceans-CLADOCERA (Water Fleas)	true
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Tadpoles and eggs
Habitat Condition	CP, AB
Photo	

NE view of VP#3

VP Survey Data 4	
Feature ID #	VP# 4, 22, 46, 23, 47, 45, 37, 43, 21, 34, 44, 33, 35, 36, 38, 5, 40, 38, 39, 41, 42, 32, 30, 31, 29, 14, 28, 16, 17, 18, 27, 26, 24, 25, 19, 20, 14, 13, 12, 9, 11, 10, 8, 7, 6
Air Temp (°F)	
Water Temp (°F)	
Depth Average (cm)	
Depth Est. Max. (cm)	
Surface Area Present	
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Dry
Habitat Condition	
Photo	None

VP Survey Data 5	
Feature ID #	VP#15

Air Temp (°F)	
Water Temp (°F)	
Depth Average (cm)	
Depth Est. Max. (cm)	
Surface Area Present	
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	First survey with standing water (last week was flowing)
Habitat Condition	
Photo	None

BIO-13 U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods v3

Project	Paseo Norte Senior Affordable Housing Project
ID	323484
Survey Date	03/16/2023
User	Katie Quint
Project Name	Paseo Fairy Shrimp Surveys
County	San Diego County
Surveyors	L. Bernal, K. Quint
Permit #	TE-14749C-3
Time (Start-End)	09:40am-13:10pm
Weather Conditions (Start-End)	3-5mph wind, overcast / 2-4mph wind, sunny and partly cloudy
Temperature (Start-End; °F)	52-56
VP Survey Data 1	
Feature ID #	VP3
Air Temp (°F)	55
Water Temp (°F)	48
Depth Average (cm)	15
Depth Est. Max. (cm)	22
Surface Area Present	560
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	true
Crustaceans-CLADOCERA (Water Fleas)	true
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Baja California tree frog tadpoles. Connected to VP2 and VP 2 is connected to VP46

Habitat Condition	CP, AB
Photo	

east view of vp3

VP Survey Data 2	
Feature ID #	VP1
Air Temp (°F)	55
Water Temp (°F)	54
Depth Average (cm)	15
Depth Est. Max. (cm)	22.5
Surface Area Present	1030
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	true
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Unknown beetle larvae with two joined tails. Did not survey west of chainlink fence
Habitat Condition	DT, AB
Photo	

downward facing view of trash present on edge of pool

downward facing view of trash (glove) in pool

SW-facing view of VP1

VP Survey Data 3	
Feature ID #	VP2
Air Temp (°F)	55
Water Temp (°F)	56
Depth Average (cm)	8
Depth Est. Max. (cm)	13
Surface Area Present	70
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	

Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	true
Crustaceans-CLADOCERA (Water Fleas)	true
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Baja California tree frog. Connected to VP3 and VP46
Habitat Condition	DTT, AB
Photo	

east-facing view of VP2

VP Survey Data 4	
Feature ID #	VPs 23, 46, 47, 37, 45, 36, 43, 21, 34, 33, 44, 43, 30, 32, 38, 39, 40, 41, 42, 29, 31, 28, 16, 17, 18, 27, 26, 24, 25, 19, 20 l, 11, 12, 9, 7, 8, 10, 4
Air Temp (°F)	
Water Temp (°F)	
Depth Average (cm)	
Depth Est. Max. (cm)	
Surface Area Present	
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false

Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Inundated >3cm; 4, 7, 8, 9 have been disturbed/altered by non-project H&M construction
Habitat Condition	
Photo	None

VP Survey Data 5	
Feature ID #	VP48
Air Temp (°F)	
Water Temp (°F)	
Depth Average (cm)	
Depth Est. Max. (cm)	
Surface Area Present	
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	New pool w/ >3cm, burrow below surface
Habitat Condition	
Photo	

East-facing view of new VP 48

VP Survey Data 6	
Feature ID #	VP49
Air Temp (°F)	
Water Temp (°F)	
Depth Average (cm)	
Depth Est. Max. (cm)	
Surface Area Present	
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	New pool with 3cm+
Habitat Condition	
Photo	

SW view of VP49

VP Survey Data 7	
Feature ID #	VPs 35, 14, 6, 13, 5
Air Temp (°F)	
Water Temp (°F)	
Depth Average (cm)	
Depth Est. Max. (cm)	
Surface Area Present	
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Dry/<3cm/flowing; 13 and 5 connected and flowing
Habitat Condition	
Photo	None

VP Survey Data 8	
Feature ID #	VP50, 51, 52, 53, 54, 55, 56, 57, 58
Air Temp (°F)	

Water Temp (°F)	
Depth Average (cm)	
Depth Est. Max. (cm)	
Surface Area Present	
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	New pool w/ 3cm+, shallow excavation
Habitat Condition	
Photo	None

BIO-13 U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods v3

Project	Paseo Norte Senior Affordable Housing Project
ID	325645
Survey Date	03/24/2023
User	Desiree Johnson
Project Name	Paseo Norte
County	San Diego County
Surveyors	Lorena Bernal and Desiree Johnson
Permit #	TE-14749C-3
Time (Start-End)	9:30am-2:40pm
Weather Conditions (Start-End)	1-4, 60-40%
Temperature (Start-End; °F)	52-62
VP Survey Data 1	
Feature ID #	22
Air Temp (°F)	52
Water Temp (°F)	52.9
Depth Average (cm)	8
Depth Est. Max. (cm)	13.5
Surface Area Present	35
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	true
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	true
Platyhelminths (flatworms)	false
Notes	Overflow from road

Habitat Condition	CP, DTT, DT
Photo	

VP Survey Data 2	
Feature ID #	2
Air Temp (°F)	52
Water Temp (°F)	56.1
Depth Average (cm)	10
Depth Est. Max. (cm)	23
Surface Area Present	66
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	true
Crustaceans-CLADOCERA (Water Fleas)	true
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Some connectivity to Pools 3 and 46. Baja California tree frog tadpoles. Alder fly nymph
Habitat Condition	DTT, AB
Photo	

VP Survey Data 3	
Feature ID #	46
Air Temp (°F)	52
Water Temp (°F)	59.5
Depth Average (cm)	3
Depth Est. Max. (cm)	8
Surface Area Present	58
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	true
Crustaceans-OSTRACODS (Seed Shrimp)	true
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Connected to Pool 2.
Habitat Condition	NP, DT, AB
Photo	

VP Survey Data 4	
Feature ID #	48
Air Temp (°F)	52
Water Temp (°F)	51.6
Depth Average (cm)	11
Depth Est. Max. (cm)	12.5
Surface Area Present	.5
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	true
Crustaceans-OSTRACODS (Seed Shrimp)	true
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Oil sheen and foam present on surface.
Habitat Condition	NP, AB
Photo	

VP Survey Data 5	
Feature ID #	49
Air Temp (°F)	52
Water Temp (°F)	60.3
Depth Average (cm)	1
Depth Est. Max. (cm)	4
Surface Area Present	30
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Gravel fill graded pad
Habitat Condition	CP, AB
Photo	

VP Survey Data 6	
Feature ID #	5
Air Temp (°F)	52
Water Temp (°F)	58.1
Depth Average (cm)	8
Depth Est. Max. (cm)	22
Surface Area Present	12
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	true
Crustaceans-CLADOCERA (Water Fleas)	true
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Overflow into road connecting to pool 13
Habitat Condition	CP, DT
Photo	

VP Survey Data 7	
Feature ID #	35
Air Temp (°F)	52
Water Temp (°F)	62.5
Depth Average (cm)	1.5
Depth Est. Max. (cm)	3
Surface Area Present	82
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	
Habitat Condition	CP, AB
Photo	

VP Survey Data 8	
Feature ID #	33
Air Temp (°F)	52
Water Temp (°F)	63
Depth Average (cm)	3
Depth Est. Max. (cm)	5
Surface Area Present	50
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	
Habitat Condition	CP, DT, AB
Photo	

VP Survey Data 9	
Feature ID #	50
Air Temp (°F)	52
Water Temp (°F)	54.1
Depth Average (cm)	20
Depth Est. Max. (cm)	30
Surface Area Present	2
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Super high turbidity
Habitat Condition	CP
Photo	

VP Survey Data 10	
Feature ID #	44
Air Temp (°F)	52
Water Temp (°F)	62.8
Depth Average (cm)	2
Depth Est. Max. (cm)	3
Surface Area Present	28
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	
Habitat Condition	CP, DTT, AB
Photo	

VP Survey Data 11	
Feature ID #	30
Air Temp (°F)	52
Water Temp (°F)	59.9
Depth Average (cm)	3
Depth Est. Max. (cm)	8
Surface Area Present	80
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	true
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	
Habitat Condition	CP, DT, AB
Photo	

VP Survey Data 12	
Feature ID #	4
Air Temp (°F)	53
Water Temp (°F)	63
Depth Average (cm)	5
Depth Est. Max. (cm)	9
Surface Area Present	6
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	
Platyhelminths (flatworms)	false
Notes	Very high turbidity
Habitat Condition	DTT
Photo	

VP Survey Data 13	
Feature ID #	40
Air Temp (°F)	52
Water Temp (°F)	64
Depth Average (cm)	2
Depth Est. Max. (cm)	3
Surface Area Present	2
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	
Habitat Condition	CP, DT, AB
Photo	

VP Survey Data 14	
Feature ID #	41
Air Temp (°F)	53
Water Temp (°F)	66.9
Depth Average (cm)	2
Depth Est. Max. (cm)	3
Surface Area Present	7
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Small white earthworms
Habitat Condition	DT, AB
Photo	

VP Survey Data 15	
Feature ID #	42
Air Temp (°F)	53
Water Temp (°F)	72
Depth Average (cm)	1
Depth Est. Max. (cm)	1
Surface Area Present	1
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	
Habitat Condition	DTT
Photo	

VP Survey Data 16	
Feature ID #	27
Air Temp (°F)	62
Water Temp (°F)	63
Depth Average (cm)	7
Depth Est. Max. (cm)	22
Surface Area Present	12
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	
Habitat Condition	DTT, DT, AB
Photo	

VP Survey Data 17	
Feature ID #	17
Air Temp (°F)	62
Water Temp (°F)	
Depth Average (cm)	
Depth Est. Max. (cm)	
Surface Area Present	
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Heavy grading activity. Pool is no longer here
Habitat Condition	
Photo	None

VP Survey Data 18	
Feature ID #	18
Air Temp (°F)	62
Water Temp (°F)	67

Depth Average (cm)	8
Depth Est. Max. (cm)	22
Surface Area Present	3
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	High turbidity
Habitat Condition	DTT, DT, AB
Photo	

VP Survey Data 19	
Feature ID #	16
Air Temp (°F)	62
Water Temp (°F)	69.3
Depth Average (cm)	1
Depth Est. Max. (cm)	2
Surface Area Present	.5
Crustaceans-ANOSTRACANS	

(Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Partially filled in by grading
Habitat Condition	DTT, AB
Photo	

VP Survey Data 20	
Feature ID #	54
Air Temp (°F)	62
Water Temp (°F)	69.4
Depth Average (cm)	4
Depth Est. Max. (cm)	7
Surface Area Present	1.5
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false

Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	High turbidity and in a parking shoulder
Habitat Condition	DTT
Photo	

VP Survey Data 21	
Feature ID #	55
Air Temp (°F)	62
Water Temp (°F)	54
Depth Average (cm)	2
Depth Est. Max. (cm)	3
Surface Area Present	1
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA	false

(Aquatic Beetles)	
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	High turbidity and in a parking shoulder
Habitat Condition	DTT
Photo	

VP Survey Data 22	
Feature ID #	56
Air Temp (°F)	
Water Temp (°F)	70
Depth Average (cm)	4
Depth Est. Max. (cm)	6
Surface Area Present	6
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges &	false

Others)	
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	High turbidity and in a parking shoulder
Habitat Condition	DTT, DT, AB
Photo	

VP Survey Data 23	
Feature ID #	57
Air Temp (°F)	62
Water Temp (°F)	66.9
Depth Average (cm)	4
Depth Est. Max. (cm)	8
Surface Area Present	1.5
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false

Notes	High turbidity and in a parking shoulder
Habitat Condition	DTT, AB
Photo	

VP Survey Data 24	
Feature ID #	58
Air Temp (°F)	62
Water Temp (°F)	61.2
Depth Average (cm)	2
Depth Est. Max. (cm)	3
Surface Area Present	1
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	High turbidity and in a parking shoulder
Habitat Condition	DTT, AB
Photo	

VP Survey Data 25	
Feature ID #	15, 14, and 13
Air Temp (°F)	62
Water Temp (°F)	
Depth Average (cm)	
Depth Est. Max. (cm)	
Surface Area Present	
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Connected. Overflow from Santa Maria Creek runs through them. Actively flowing
Habitat Condition	DTT
Photo	

VP Survey Data 26	
Feature ID #	53
Air Temp (°F)	62
Water Temp (°F)	65
Depth Average (cm)	2
Depth Est. Max. (cm)	4
Surface Area Present	2
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	false
Crustaceans-CLADOCERA (Water Fleas)	false
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	High turbidity
Habitat Condition	DTT
Photo	

VP Survey Data 27	
Feature ID #	28
Air Temp (°F)	62
Water Temp (°F)	51.4
Depth Average (cm)	6
Depth Est. Max. (cm)	12
Surface Area Present	40
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	true
Crustaceans-OSTRACODS (Seed Shrimp)	true
Crustaceans-CLADOCERA (Water Fleas)	true
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Larval white earthworms
Habitat Condition	CP, DT, AB
Photo	

1109137

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: Pasto Norte | **County:** San Diego | **Quad:** Ramona | **Township:** — | **Range:** — | **Section:** —

SURVEYOR / Permit Number: Kris Alberts (TE 039640-5), Lauren Marshall

Date: 3-31-23 | **Time:** 0850 | **Weather Conditions:** Mostly sunny, calm

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1		50	52.1	18	30		41			✓	✓	✓						DT/DT	Tree frog tadpoles
22		51	56.2	8	16					✓		✓						DT/DT	
23		51	58.7	3	5													DT	
~~48~~ 46		52	57	4	6						✓	✓	✓					NP/T/AB	
48		57	54.4	12	22					✓		✓	✓					NPP	
47		58	59.7	3	6					✓			✓					NP	Flowing
21		58	56.4	9	25						✓		✓					DT/DT	water mites, Tadpoles
43		58	61.5	3	6						✓							DT/CP	
36		58	62.1	6	8								✓					DT/DT/CP	
49		58	64.7	3	4					✓								<P DT	
37		58	57	9	18		(12)			✓		✓						AB/DT	Larva of some type
45		59	60.9	2	4													DT/AB	heard breeders @ pond
38		59	60.6	3	6													CP/AB	water mites
		~~58~~ 59	54.1	18	28						✓	✓		✓				CP	Tree Frg ?? large

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli)*.
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

5 (not sampled / flowing)

No photos taken all pools @ Max cap

Ramona

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: Paseo Norte	County: San Diego	Quad: Ramona	Township:	Range:	Section:

SURVEYOR / Permit Number: Kris Alberts (TE 039640-5) Lauren Marshall

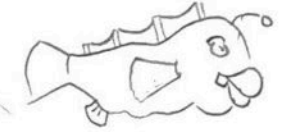
Date: 3/31/23 Time: 10:28 Weather Conditions: Mostly sunny/ calm

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
40		60	66.2	3	9													CP/AB	
41		60	61.2	2	5							✓						CP/ABI DT	larvae
42		60	67.3	3	4													CP/DTT	
52		60	68.3	2	3													CP/DTT AB	
39		60	60.2	10	19													CP/DTT	larvae
35		61	69.6	2	3													CP/DT	
33		61	65	2	4													CP	
50		61	58.8	11	17													CP/DTT	
44		60	68.9	2	5													CP/DTT	
59		60	66.4	3	5													CP/DTT	larvae
34		60	70.5	3	8						✓							AB/DT CP/DTT	
30		63	67	4	8						✓							CP/DDT	AB
32		63	66.3	10	16													CP	
51		61	66.8	6	10													CP	larvae

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

31		61	61.6	6	11													CP	larva
#27		61	74.2	3	6													CP, DTT, AB	
4		60	76	1	2													DTT	grade larvae
2		60	68	12	29						✓	✓						DTT	Treefrog tad + larva

Continuation...



Appendix 2. U.S. Fish and Wildlife Service – Data Sheet for Dry Season Sample Analysis for Listed Large Branchiopods

Project Information

Project Name: _____ Quad: _____
USFWS Project Number: _____ Township: _____
County: _____ Range: _____
Lat: _____ Section: _____
Long: _____

Biologist Information

Name of Person(2) Who Conducted the Following Tasks and Permit Number(s):
Soil Collection: _____
Soil Processing: _____
Soil Analysis/Cysts ID: _____
Soil Collection Date: _____

Pool/ Habitat/ Basin No.	Invertebrates Present (X)																
	Insect Exo-Skeletons	Micro-Turbellaria Cysts	Cladocera Ephippia	Ostracods Live/Cysts/ Carapaces	Copepods Live/Cysts	Number of Large Branchiopod Cysts: *Branchinecta* sp.	*Lepidurus packardi*	*Streptocephalus wootoni*	*Linderiella occidentalis*	*Lynceus brachyurus*	*Cyzicus californicus*	Hydracarina Live	Nematoda	Collembola	Other Species	Comments
Feature ID		Air °	Water °	Ave depth	Max Depth	surface Area			copep.	ostra.	clado.	cole.	Hem.		Hab. Condition	
19		64	79	5	8										DTT, CP	
25		65	74	4	6										DT, ~~CP~~ CP	larva
24		65	79.2	4	6										DTT, AB, CP	grand worm
26		64	80.4	3	5										DTT, AB, CP	
27		64	69.8	9	25										DTT AB, CP	
20		64	76.5	2	4	(1)									DTT, CP	
17/18		64	66.7	12	17										DTT, CP	conjoined, larva,
16		64	76.8	3	6										CP, DTT	
28		64	58.4	12	17					✓	✓				CP	
53		63	79	3	5					✓					CP, DTT	
12		63	76	17	28										CP	
11		63	77.5	2	4										CP, DTT	
9				2	4										DTT, CP	larva
8		63	77.4	1	3	(1)									DTT / CP	
6		63	77.3	2	4										DTT / CP	

56, 57, 58, 55, 54 out of bounds

We are not marking flowing pools

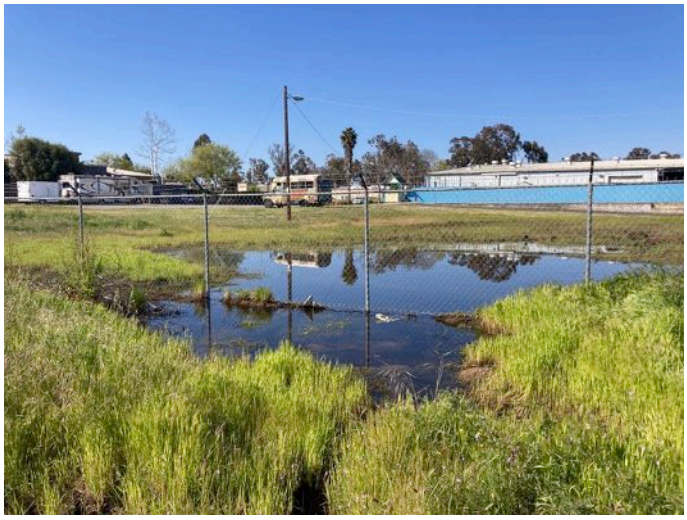
#10, 1 is gone (grazed)

Appe
Site or Pr
SURVEY
Date: 4/

BIO-13 U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods v3

Project	Paseo Norte Senior Affordable Housing Project
ID	328955
Survey Date	04/07/2023
User	Desiree Johnson
Project Name	Paseo Norte Fairy Shrimp Surveys
County	San Diego County
Surveyors	Kris Alberts and Desiree Johnson
Permit #	TE-039640-5
Time (Start-End)	0900-1020
Weather Conditions (Start-End)	40-10%, 1-3
Temperature (Start-End; °F)	58-61
VP Survey Data 1	
Feature ID #	1
Air Temp (°F)	58
Water Temp (°F)	58.5
Depth Average (cm)	9
Depth Est. Max. (cm)	23
Surface Area Present	432
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	true
Crustaceans-OSTRACODS (Seed Shrimp)	true
Crustaceans-CLADOCERA (Water Fleas)	true
Insects-COLEOPTERA (Aquatic Beetles)	true
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	true
Platyhelminths (flatworms)	false
Notes	Alderfly nymph and Baja CA tree frog tadpoles

Habitat Condition	NP, DTT, DT
Photo	



VP Survey Data 2	
Feature ID #	2
Air Temp (°F)	58
Water Temp (°F)	59.3
Depth Average (cm)	9
Depth Est. Max. (cm)	16
Surface Area Present	42
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	true
Crustaceans-CLADOCERA (Water Fleas)	true
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	true
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	spadefoot Tadpoles, unknown larvae, Water mites
Habitat Condition	DTT
Photo	

VP Survey Data 3	
Feature ID #	3
Air Temp (°F)	60
Water Temp (°F)	58.1
Depth Average (cm)	10
Depth Est. Max. (cm)	18
Surface Area Present	400
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	false
Crustaceans-OSTRACODS (Seed Shrimp)	true
Crustaceans-CLADOCERA (Water Fleas)	true
Insects-COLEOPTERA (Aquatic Beetles)	true
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	Tadpoles, aquatic vegetation abundant
Habitat Condition	NP
Photo	

VP Survey Data 4	
Feature ID #	5
Air Temp (°F)	60
Water Temp (°F)	54.5
Depth Average (cm)	5
Depth Est. Max. (cm)	8
Surface Area Present	15
Crustaceans-ANOSTRACANS (Fairy Shrimp)	
Crustaceans-NOTOSTRACANS (Tadpole Shrimp)	
Crustaceans-COPEPODS	true
Crustaceans-OSTRACODS (Seed Shrimp)	true
Crustaceans-CLADOCERA (Water Fleas)	true
Insects-COLEOPTERA (Aquatic Beetles)	false
Insects-HEMIPTERA (Water Boatman, Backswimmers)	false
Insects-DIPTERA CHIRONOMIDAE (Midges & Others)	false
Insects-DIPTERA CULICIDAE (Mosquitoes)	false
Platyhelminths (flatworms)	false
Notes	All other pools dry except pool 15 which is still connected to the flowing creek.
Habitat Condition	CP, DT
Photo	

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: Paseo Norte	County: San Diego	Quad:	Township:	Range:	Section:

SURVEYOR / Permit Number: Kris Albests TE039640-5

Date: 4/14-23 | Time: 0945 | Weather Conditions: Overcast

Feature ID #	UTM (Northing, Easting, Datum)	Temp (°C) (°F)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomida			No voucher
2		57°	61.1°	5	9	9		BRLI 1♂, 1♀		✓		✓	✓	✓		✓		DTT	Sporadic tadpoles and aquatic veg.
3		58°	60°	8	16	340					✓	✓	✓	✓	✓	✓		CP, AB, DT	Insects, predaceous, aquatic veg., larvae, tadpoles

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service – Data Sheet for Wet Season Surveys For Listed Large Branchiopods

Site or Project Name: Paseo Norte	County:	Quad:	Township:	Range:	Section:

SURVEYOR / Permit Number: Kris Alberts, TE039640-5

Date: 4-21-23 | Time: 0920 | Weather Conditions: Sunny, hot

Feature ID #	UTM (Northing, Easting, Datum)	Temp ~~(°C)~~ °F		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomida			
3		74°	66.4	5	8	20					X		X	X				CP	tadpoles

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = *Linderiella occidentalis*, BRLI = *Branchinecta lindahli*).
For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.
(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

BIO-13 U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods v3 Photo Sheet

Date	05/12/2023
User	Kris Alberts
Coordinates	33.04102384, -116.8740919
Heading	N (-1 degrees)
Accuracy	5 m
Description	Pool 2.

Date	05/12/2023
User	Kris Alberts
Coordinates	33.04102145, -116.87407692
Heading	W (289 degrees)
Accuracy	5 m
Description	Fairy shrimp and other aquatic micro-organisms.

ATTACHMENT C

Dry Season Fairy Shrimp Survey Results

ALDEN ENVIRONMENTAL, INC
3245 University Ave, #1188 | San Diego, CA 92104 | **Phone/Fax:** 619.284.3815

August 23, 2023

Mr. Kris Alberts
Blackhawk Environmental
1720 Midvale Drive
San Diego, CA 92105

Subject: Dry Season Fairy Shrimp Sampling Results

Dear Mr. Alberts:

This letter presents the results of dry season fairy shrimp sampling (cyst identification and rearing) conducted for the Paseo Norte samples.

Methods

Cyst Identification

On July 5, 2023, Alden received soil samples collected from 41 basins on the project site. The soil was provided in bags labeled with the basin number. The collected soil from each basin was divided into subsamples, based on the area of the pool and the amount of soil collected. Each sample was then hydrated and processed through a series of sieves to separate out fairy shrimp cysts that may be present. The sieves used were of 710-, 355-, and 212-µm pore size screens. The final sieve pore size is smaller than the target fairy shrimp genera (*Branchinecta* and *Streptocephalus*) average cyst diameter and therefore would retain cysts. The material remaining on the final sieve was next placed in a brine solution to help separate organic from inorganic material. The organic portion was then filtered through a standard coffee filter and allowed to dry. The dried material on the filters was then examined under a stereo dissecting scope to determine if cysts were present. Cyst surface characteristics were then used to identify cysts to genus, if present.

Hatching/Rearing

The collected *Branchinecta* fairy shrimp cysts were hydrated by placing them into plastic containers filled with approximately 525 ml of filtered, non-chlorinated drinking water. The coffee filters (from the soil sieving effort) with the collected cysts were slowly opened over the containers and gently shaken to allow the material to fall into the water. The sides of the filters were then rubbed against one another to release any additional material. Finally, a squirt bottle filled with filtered drinking water was used to spray any additional material from the filters into the containers.

The containers were given sample identification numbers and placed on a table in a climate controlled room. Lighting in the room was provided by indirect sunlight as well as an overhead light (full spectrum bulb) that was kept on approximately 12 hours a day to help emulate spring season lighting conditions. An overhead fan also was kept on at a low level to provide for some air movement across the water surface in the sample containers.

The samples were checked daily to see if any fairy shrimp had emerged. Once nauplii were observed, feeding began. The hatched shrimp were fed 2-4 drops of prepared food on a daily basis until they were collected. The food used was a mix of active brewer's yeast, sugar, powdered fish food, and water.

The hatched shrimp were allowed to continue under these conditions until they had reached maturity, as determined by reaching full size, antennal development (males) and brood pouch development (females). Once mature, the fairy shrimp were collected for identification by pouring the material in the container through a small strainer. Collected shrimp were then placed into a dish of carbonated (soda) water to slowly asphyxiate the shrimp. Once dead, the collected shrimp were placed in a 27 x 57 mm (5 dram) clear glass vial, filled with 70% ethyl alcohol. The collected shrimp were then identified to the species level with the aid of a stereo dissecting scope.

Results

Cyst Identification

Cysts of the genus *Branchinecta* were found in 3 of the sampled basins (Table 1). No cysts of the genus *Streptocephalus* were found in any of the sampled basins.

Table 1
Number of Recovered Cysts[1]

Basin	Number of Subsamples	*Branchinecta*	*Streptocephalus*
1	10	1	-
2	25	15	-
3	50	3	-

[1]Only basins with positive results shown

Hatching/Rearing

Hydration and hatching of the samples with recovered cysts was conducted, resulting in the collection and identification of the non-sensitive versatile fairy shrimp (*B. lindahli*) from all but one (Basin 1) of the basins with fairy shrimp cysts present (Table 2). No other fairy shrimp species were identified.

Table 2
Fairy Shrimp Hatching Results

Basin	***Branchinecta lindahli***		
	Male	**Female**	**Total**
1	-	-	-
2	3	2	5
3	1	1	2
Total	4	**3**	**7**

The above text presents the final results of the dry season fairy shrimp cyst identification and hatching effort for the project. The non-listed versatile fairy shrimp was the only shrimp species to be reared from the recovered cysts. If you have any questions or need additional information please call.
Sincerely,

Greg Mason
Principal/Senior Biologist