ATTACHMENT D

ENVIRONMENTAL IMPACT REPORT

APPENDIX D1

BIOLOGY

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June 16, 2023 14776

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Subject: Biological Resources Letter Report for the Capalina Apartments Project, City of San Marcos, California (GPA22-0003, R22-0003, SDP22-0007)

Dear Mr. Rilling:

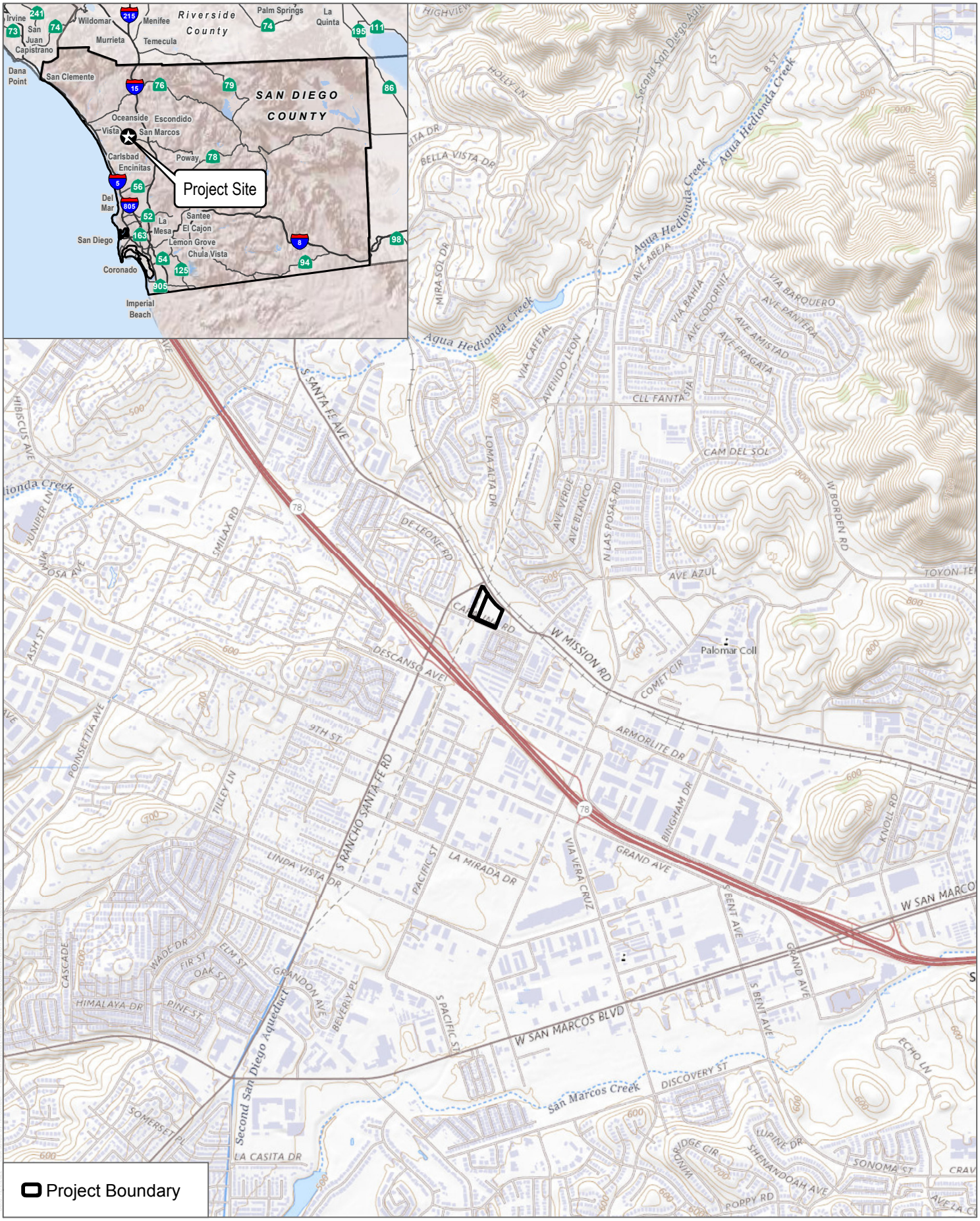
This letter documents the biological resources assessment, vegetation mapping, rare plant survey, general habitat assessment, and literature and database review conducted by Dudek for the Capalina Apartments Project (Project), located in the City of San Marcos, California (Figure 1, Project Location and Vicinity). The Project would consist of the development of 119 apartment units on Capalina Road in the City of San Marcos, California. The City of San Marcos (City) is the lead agency responsible for compliance with the California Environmental Quality Act (CEQA). In accordance with CEQA, Dudek performed a biological resources inventory for the entire project area.

1 Project Location and Description

The approximately 2.54-acre project site is site located along Capalina Road in the City of San Marcos, California. The project site is currently an undeveloped, vacant lot located just north of Capalina Road, south of West Mission Road, east of South Rancho Sante Fe Road, and about one block north of CA State Route 78. The approximate centroid of the site is 33°09'06.0"N 117°11'42.5"W. The project site is surrounded on all sides by existing commercial development and roads. The site falls within Section 9 of Township 12 South, Range 3 West of the San Marcos, California 7.5-minute Quadrangle (Figure 1). The site is generally flat as the elevation on site ranges from 581-602 feet above mean sea level (amsl). During the site visit in September 2022 it was documented that recent geeotech work had been conducted within the site.

The proposed Project consists of the development of 119 apartment units, 4,000 square feet of commercial use, 147 on-site parking spaces, and associated residential amenities such as common open space area and a recreation/fitness center.

Additionally, the small strip of land along the project's frontage onto Capalina is public right-of-way and will be improved to public street standards with sidewalks, curb, and gutters. Also, the developed area that abuts the western side of the Project is under an SDCWA easement, where there is a reciprocal parking agreement for the Project, but the area is not planning to be improved.



SOURCE: USGS 7.5-Minute Series San Marcos Quadrangle
Township 12S; Range 3W, Section 9

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FIGURE 1

Project Location

Capalina Apartments Project

2 Regulatory Context

2.1 Federal

2.1.1 Federal Endangered Species Act

The federal Endangered Species Act of 1973 (16 USC 1531 et seq.), as amended, is administered by the U.S. Fish and Wildlife Service (USFWS) for most plant and animal species, and by the National Oceanic and Atmospheric Administration National Marine Fisheries Service for certain marine species. This legislation is intended to provide a means to conserve the ecosystems upon which endangered and threatened species depend, and provide programs for the conservation of those species, thus preventing extinction of plants and wildlife. The federal Endangered Species Act defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under the federal Endangered Species Act, it is unlawful to take any listed species, and "take" is defined as, "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

The federal Endangered Species Act allows for the issuance of incidental take permits for listed species under Section 7, which is generally available for projects that also require other federal agency permits or other approvals, and under Section 10, which provides for the approval of habitat conservation plans on private property without any other federal agency involvement. Upon development of a habitat conservation plan, USFWS can issue incidental take permits for listed species.

2.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) was originally passed in 1918 as four bilateral treaties, or conventions, for the protection of a shared migratory bird resource. The primary motivation for the international negotiations was to stop the "indiscriminate slaughter" of migratory birds by market hunters and others. Each of the treaties protects selected species of birds and provides for closed and open seasons for hunting game birds. The MBTA protects more than 800 species of birds and prohibits the take of any migratory bird or any part, nest, or eggs of any such bird. Under the MBTA, "take" is defined as pursuing, hunting, shooting, capturing, collecting, or killing, or attempting to do so (16 USC 703 et seq.). Additionally, Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, requires that any project with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations (66 FR 3853–3856). The executive order requires federal agencies to work with USFWS to develop a memorandum of understanding. USFWS reviews actions that might affect these species.

Two species of eagles that are native to the United States, bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*), were granted additional protection within the United States under the Bald and Golden Eagle Protection Act (16 USC 668–668d) to prevent the species from becoming extinct.

2.1.3 Clean Water Act

Pursuant to Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged and/or fill material into "waters of the United States." The term "wetlands" (a subset of waters of the United States) is defined in Title 33 of the Code of Federal Regulations, Section 328.3(b), as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." In the absence of wetlands, the limits of USACE jurisdiction in non-tidal waters, such as intermittent streams, extend to the ordinary high water mark (OHWM), which is defined in Title 33 of the Code of Federal Regulations, Section 328.3(e).

2.2 State

2.2.1 California Endangered Species Act

The California Department of Fish and Wildlife (CDFW) administers the California Endangered Species Act (CESA), which prohibits the "take" of plant and animal species designated by the California Fish and Game Commission as endangered or threatened in California. Under CESA Section 86, take is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA Section 2053 stipulates that state agencies may not approve projects that will "jeopardize the continued existence of any endangered species or threatened species, or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy."

CESA defines an endangered species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." CESA defines a threatened species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the [California Fish and Game] Commission as rare on or before January 1, 1985, is a threatened species." A candidate species is defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the Commission has published a notice of proposed regulation to add the species to either list." CESA does not list invertebrate species.

CESA authorizes the taking of threatened, endangered, or candidate species if take is incidental to an otherwise lawful activity and if specific criteria are met. These provisions also require CDFW to coordinate consultations with USFWS for actions involving federally listed species that are also state-listed species. In certain circumstances, CESA allows CDFW to adopt a CESA incidental take authorization as satisfactory for CEQA purposes based on finding that the federal permit adequately protects the species and is consistent with state law.

A CESA permit may not authorize the take of "fully protected" species that are protected in other provisions of the California Fish and Game Code, discussed further below.

2.2.2 California Fish and Game Code

Sections 3511 (Birds), 4700 (Mammals), 5050 (Reptiles and Amphibians), and 5515 (Fish) of the California Fish and Game Code provide that designated fully protected species may not be taken or possessed without a permit. Incidental take of these species is not authorized by law.

Pursuant to Section 3503.5 of the California Fish and Game Code, it is unlawful to take, possess, or destroy any birds of prey; or to take, possess, or destroy any nest or eggs of such birds. Birds of prey refer to species in the orders Falconiformes and Strigiformes.

Nests of all other birds (except English sparrow [*Passer domesticus*] and European starling [*Sturnus vulgaris*]) are protected under Sections 3503 and 3513 of the California Fish and Game Code.

Pursuant to Section 1602 of the California Fish and Game Code, 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. Diversion, obstruction, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife requires authorization from CDFW by means of entering into an agreement pursuant to Section 1602 of the California Fish and Game Code.

2.2.3 Porter–Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act (Porter–Cologne Act) protects water quality and the beneficial uses of water. It applies to surface water and groundwater. Under this law, the State Water Resources Control Board develops statewide water quality plans, and the Regional Water Quality Control Boards (RWQCBs) develop regional basin plans that identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of statewide plans and basin plans. Waters regulated under the Porter–Cologne Act include isolated waters that are not regulated by USACE. RWQCBs regulate discharging waste, or proposing to discharge waste, within any region that could affect a "water of the state" (California Water Code, Section 13260[a]). Waters of the state are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code, Section 13050[e]). Developments with impacts on jurisdictional waters must demonstrate compliance with the goals of the Porter–Cologne Act by developing Stormwater Pollution Prevention Plans, Standard Urban Stormwater Mitigation Plans, and other measures to obtain a Clean Water Act Section 401 certification. If a Clean Water Act Section 404 permit is not required for a project, the RWQCB may still require a permit (i.e., Waste Discharge Requirement) for impacts to waters of the state under the Porter–Cologne Act.

2.2.4 California Environmental Quality Act

CEQA (California Public Resources Code Section 21000 et seq.) and the CEQA Guidelines (14 CCR 15000 et seq.) require identification of a project's potentially significant impacts on biological resources and feasible mitigation measures and alternatives that could avoid or reduce significant impacts. CEQA Guidelines Section 15380(b)(1) defines endangered animals or plants as species or subspecies whose "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors" (14 CCR 15000 et seq.). A rare animal or plant is defined in CEQA Guidelines Section 15380(b)(2) as a species that, although not currently threatened with extinction, exists "in such

small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or … [t]he species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered 'threatened' as that term is used in the federal Endangered Species Act." Additionally, an animal or plant may be presumed to be endangered, rare, or threatened if it meets the criteria for listing, as defined further in CEQA Guidelines Section 15380(c). CEQA also requires identification of a project's potentially significant impacts on riparian habitats (such as wetlands, bays, estuaries, and marshes) and other sensitive natural communities, including habitats occupied by endangered, rare, and threatened species.

In Title 14 of the California Code of Regulations (CCR), Section 1.72 (14 CCR, Section 1.72), CDFW defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation."

In 14 CCR 1.56, CDFW's definition of "lake" includes "natural lakes or [human-built] reservoirs." Diversion, obstruction, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife requires authorization from CDFW by means of entering into an agreement pursuant to Section 1602 of the California Fish and Game Code.

CDFW recognizes that all plants with a California Rare Plant Rank of 1A, 1B, or 2, and some ranked 3, of the California Native Plant Society's Inventory of Rare and Endangered Plants in California (CNPS 2021) may meet the criteria for listing as threatened or endangered and should be considered under CEQA. Some of the California Rare Plant Rank 3 and 4 plants meet the criteria for determination as "rare" or "endangered" as defined in Section 1901, Chapter 10 (Native Plant Protection Act), Division 2, of the California Fish and Game Code, as well as Section 2062 and Section 2067, Chapter 1.5 (CESA), Division 3. Therefore, consideration under CEQA for these California Rare Plant Rank 3 and 4 species is strongly recommended by the California Native Plant Society (CNPS 2021).

For purposes of this report, animals considered "rare" under CEQA include endangered or threatened species, Birds of Conservation Concern (USFWS 2021a), California Species of Special Concern (CDFW 2021a), and fully protected species.

Section IV, Appendix G, Environmental Checklist Form, of the CEQA Guidelines (14 CCR 15000 et seq.) requires an evaluation of impacts to "any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service."

The criteria used to determine the significance of impacts to biological resources under CEQA are provided in Chapter 6, Project Impacts and Significance Determination.

2.3 Local

2.3.1 North County Multiple Habitat Conservation Program

The North County Multiple Habitat Conservation Program (MHCP) is a long-term regional conservation plan established to protect sensitive species and habitats in northern San Diego County. The MHCP is divided into seven Subarea Plans—one for each jurisdiction within the MHCP—that are permitted and implemented separately from one another. The City of Carlsbad is the only city under the MHCP that has an approved and permitted Subarea Plan. The City of San Marcos

Subarea Habitat Conservation Plan/Natural Community Conservation Plan (San Marcos Subarea Plan) (City of San Marcos 2001) has not been finalized or implemented, and the City is no longer an active participant in the Natural Community Conservation Plan program or the subregional MHCP conservation planning effort. However, it is the City's policy to comply with the conservation policies identified in the draft San Marcos Subarea Plan, including an assessment of a designated Biological Core and Linkage Area or MHCP Focused Planning Area in the context of a proposed project and the preservation of sensitive biological resources. The proposed project site is situated within an urbanized area, is surrounded on all sides by paved roads and/or commercial developments, and does not act as a wildlife corridor. It is not designated as a Biological Core and Linkage Area or MHCP Focused Planning Area.

3 Methods

3.1 Literature and Database Review

To assess biological resources and potential constraints, Dudek biologists reviewed available relevant literature and data within the project site and surrounding vicinity. The purpose of this review was to determine if sensitive plant and wildlife species, as well as sensitive habitats, may occur and what constraints these occurrences might have on the project based on regional planning and guidelines. The review included the following:

- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CDFW 2022a) including the Morro Hill, Bonsall, Pala, San Luis Rey, San Marcos, Valley Center, Encinitas, Rancho Santa Fe, and Escondido USGS 7.5-minute Quadrangle Maps.
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2022) for the San Marcos and 8 surrounding 7.5-minute USGS quadrangles
- U.S. Fish and Wildlife Service (USFWS) Critical Habitat and Occurrence Database (USFWS 2022b) including USGS 7.5-minute San Marcos and surrounding 7.5-minute USGS quadrangles
- U.S. Department of Agriculture Natural Resources Conservation Service Web Soil Survey (USDA 2022a) to identify soil types occurring within the project site
- San Diego Geographic Information Source (SanGIS 2022)
- Google Earth (2022)
- San Diego County Bird Atlas (Unitt 2004)
- San Diego County Mammal Atlas (Tremor et al. 2017)
- A Field Guide to Western Reptiles and Amphibians (Stebbins 2003)
- San Diego Natural History Museum's Plant Atlas (SDNHM 2022)

3.2 Biological Surveys and Conditions

Biological field surveys for the project were conducted in 2021 and 2022 by Dudek biologists. Surveys conducted included a biological reconnaissance survey, vegetation mapping, general habitat assessment, and focused rare plant survey. The 2021 and 2022 surveys and site conditions are present in Table 1 below.

Table 1. Survey Details and Conditions

Date	Time	Survey Type	Personnel	Survey Conditions
5/21/2021	7:30 a.m.–2:30 p.m.	Focused Rare Plant Survey and Reference Check	Erin Bergman	65°F–79°F; 20-60% cloud cover, 0–3 mph wind
9/30/2022	8:00 a.m.–9:15 a.m.	Biological Reconnaissance Survey, Vegetation Mapping, General Habitat Assessment	Shana Carey	67°F–69°F; 90-100% cloud cover, 0–2 mph wind
5/30/2023 5/31/2023	12:00 p.m.—3:00 p.m.	Reference Check Focused Rare Plant Survey	Charles Adams	63°F--70°F; moderately overcast; 0--4 miles per hour wind

3.2.1 Vegetation Community and Land Cover Mapping

Vegetation communities and land covers within the survey area were mapped in the field based on general physiognomy and species composition. Data was recorded using the ArcGIS Field Maps application over aerial base map imagery of the study area, and a geographic information system (GIS) coverage was created. Following fieldwork, remaining vegetation mapping was completed using ArcGIS on a desktop.

The vegetation community and land cover mapping follow the Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008), which is based on the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986).

3.2.2 Rare Plant Survey

Dudek botanist Erin Bergman conducted a reference check for threadleaf brodiaea (*Brodiaea filifolia*), Orcutt's brodiaea *(Brodiaea orcuttii*), and San Diego button celery (*Eryngium aristulatum* var. *parishii*) on the morning of May 21, 2021, before conducting rare plant surveys. These species were the only ones that were determined to have a potential to occur within the project site. This reference check was based on collections documented within the Calflora database. The Calflora database offers GPS point locations for plant species across California (Calflora 2022). Ms. Bergman collected coordinates from the database as close to the site as possible to ensure phenology would be similar. Ms. Bergman targeted two locations for Brodiaea within a 2 to 5-mile radius of the Project site and one location for San Diego button celery within 5 miles of the Project site. Ms. Bergman observed all species in full bloom (in high densities) before going to the site to perform the field surveys. On May 21, 2021, temperatures for the reference check were between 69°F and 77°F, winds were 0 to 4 miles per hour, and skies were clear.

Immediately after the reference check, Ms. Bergman conducted a focused special-status rare plant survey within the project site on May 21, 2021, methods of which are summarized below. The full rare plant survey report is included in this memo as Appendix C, Focused Rare Plant Survey Report for Parcel ID 2191153300, City of San Marcos, San Diego County, California.

Conditions for the survey were the same as those for the reference check—temperatures were between 69°F and 77°F, winds were 0 to 4 miles per hour, and skies were clear. Surveys for special-status species were conducted within the Project site by walking transects. Ms. Bergman used both the Collector mobile application and Dudek forms mobile application to record data and map any rare plant species. Transects were included in the Collector mobile

application as guidance. These transects were spread at a distance of 10 feet to cover every section of the Project site, including areas with high-density vegetation. Ms. Bergman followed these 10-foot transect lines across the Project site. Focused special-status plant surveys conformed to the California Native Plant Society Botanical Survey Guidelines (CNPS 2001), Protocols for Surveying and Evaluating Impacts to Special Status Native Populations and Natural Communities (CDFG 2009), and U.S. Fish and Wildlife Services General Rare Plant Survey Guidelines (Cypher 2002).

An additional focused rare plant survey, with an emphasis on thread-leaved brodiaea (*Brodiaea filifolia*; CRPR 1B.1, CE, FT) and Orcutt's brodiaea (*Brodiaea orcuttii*; CRPR 1B.1) was conducted on May 31, 2023, by botanist Charles Adams. The reference check was conducted on May 30, 2023, one day prior to conducting the rare plant survey. This reference check was based on known populations within a 5-mile radius of the proposed project site. Mr. Adams observed both species in full bloom (in high densities). The temperatures for the reference check were between 63°F and 70°F, winds were 0 to 4 miles per hour, and skies were overcast. Conditions for the focused rare plant survey were the same as those for the reference check—temperatures were between 63°F and 70°F, winds were 0 to 4 miles per hour, and skies were moderately overcast. Surveys for special-status species were conducted within the Project site by walking transects. Mr. Adams used both the Collector mobile application and Dudek forms mobile application to record data. Transects were included in the Collector mobile application as guidance. These transects were spread at a distance of 10 feet to cover every section of the project site, including areas with high-density vegetation. Mr. Adams followed these 10-foot transect lines across the project site. This focused special-status plant survey conformed to the appropriate guidelines of the prior survey(s).

All plant species encountered during the field surveys were identified to subspecies or variety, if applicable, to determine sensitivity status. Moreover, all plant species encountered in the field were recorded. Latin and common names for plant species with a California Rare Plant Rank follow the California Native Plant Society's Online Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2021). For plant species without a California Rare Plant Rank, Latin names follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson 2021) and common names follow the California Natural Community list (CDFW 2021) or the U.S. Department of Agriculture Natural Resources Conservation Service Plants Database (USDA 2021).

4 Results

4.1 Vegetation Mapping Results

The Multiple Habitat Conservation Program (MHCP) organizes vegetation into habitat group types: Wetland Communities, Rare Upland, Coastal Sage Scrub, Chaparral, Annual Grassland, and Other (Table 2) (SANDAG 2003). Only one vegetation community, disturbed habitat, was identified within the project site and described in more detail below (Figure 2, Vegetation Communities and Land Cover Types). Disturbed habitat would be categorized under Group F – Other Lands.

Disturbed Habitat

Disturbed habitat are areas that have been physically disturbed and are no longer recognizable as a native or naturalized vegetation association, however these areas may continue to retain soil substrate. If vegetation is present, it is almost entirely composed of non-native vegetation, such as ornamentals or ruderal exotic species (Oberbauer et al. 2008). Examples of these areas may include graded landscapes, graded firebreaks, graded construction pads, temporary

SOURCE: San Diego Public Imagery 2019, Open Street Map 2019

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0 40 80 Feet

FIGURE 2

Vegetation Communities and Land Cover Types

Capalina Apartments Project

construction staging areas, off-road-vehicle trails, areas repeatedly cleared for fuel management, or areas that are repeatedly used in ways that prevent revegetation (e.g., parking lots, trails that have persisted for years).

Disturbed habitat occupies the entire 2.54-acre project site. The site is regularly mowed and maintained, and is dominated by species commonly found in disturbed areas including Russian thistle *(Salsola tragus*), Bermuda grass (*Cynodon dactylon*), tocalote (*Centaurea melitensis)*, short-pod mustard (*Hirschfeldia incana*), and various species of bromes (*Bromus sp.*) and erodium (*Erodium* sp.). There were six native species documented throughout the site including California encelia (*Encelia californica),* mulefat *(Baccharis salicifolia),* coyote brush (*Baccharis pilularis* ssp. *consanguinea),* telegraph weed (*Heterotheca grandiflora*), western ragweed *(Ambrosia psilostachya),* and gumplant (*Grindelia camporum*). All of these species were present in limited capacity and scattered throughout the site. Specifically, the one individual mulefat that was present was singular in nature and growing along the fenceline adjacent to a paved parking lot that bordered the site, so it did not constitute a native riparian vegetation community formation. None of the native plant species found are associated with sensitive habitats. Lastly, there are several non-native trees scattered throughout the site including Mexican fan palms (*Washingtonia robusta)* and Peruvian pepper tree *(Schinus molle).*

Additionally, the small strip of land that is designated as public right-of-way along the project's frontage onto Capalina Road is 0.15-acres and also consists of disturbed habitat.

Lastly, the developed area that abuts the western side of the project site that is under an SDCWA easement and that may be used for parking is 1.42 acres and currently consists of an old, paved parking lot.

4.2 Rare Plant Survey/Special-Status Plants

No rare plants were observed within the project site during the focused rare plant survey conducted by Erin Bergman in May 2021, or during the follow-up focused rare plant survey conducted by Charles Adams on May 31, 2023. As stated previously, the full rare plant survey report is included in this memo as Appendix C, Focused Rare Plant Survey Report for Parcel ID 2191153300, City of San Marcos, San Diego County, California. Based on review of the site, three special-status plant species had a high potential to occur within the project site: Orcutt's brodiaea, threadleaf brodiaea and San Diego button celery. Although not present within the project site, these three species are discussed in detail below.

Orcutt's brodiaea and threadleaf brodiaea have been documented as occurring throughout the City of San Marcos. These species are members of the Brodiaea (*Themidaceae*) family. Threadleaf brodiaea and Orcutt's brodiaea bloom from March through July in grasslands, freshwater wetlands, wetland/riparian, vernal pools, foothill woodland, and coastal scrub habitats. Orcutt's brodiaea and threadleaf brodiaea are perennial herbs (bulbs). Threadleaf brodiaea occur at elevations between 25 feet and 860 feet above mean sea level. Orcutt's brodiaea occur at elevations between 25 feet and 5,249 feet above mean sea level. Both species have been recorded near the Project site (CNPS 2021; Reiser 2001). The Jepson bioregional range for threadleaf brodiaea is based on the elevation range restrictions (Jepson 2021), which shows its potential range throughout north coastal San Diego County, western Riverside County, southern Orange County, southeast Los Angeles County, and southwestern San Bernardino County. The Jepson bioregional range for Orcutt's brodiaea shows possibility for occurrence throughout most of San Diego County (excluding the very eastern portion), southwestern Riverside County, Orange County, and the southwestern section of San Bernardino County.

San Diego button celery is a member of the celery (*Apiaceae*) family. San Diego button celery blooms from April through July in grasslands with vernal pools, freshwater wetlands, wetland riparian habitat, and coastal sage scrub with vernal pools or vernal wetlands. San Diego button celery is an annual herb and occurs at elevations up to 2,460 feet above mean sea level. San Diego button celery has been recorded near the Project site within San Marcos (CNPS 2021). The Jepson bioregional range for San Diego button celery is based on the elevation range restrictions (Jepson 2021), which shows its potential for occurrence throughout western San Diego County and into parts of central San Diego County, western Riverside County, and throughout north–central Orange County.

A total of 32 plants were observed during 2021 and 2022 surveys, including 6 native (19%) and 25 non-native (81%) species. A cumulative list of all plant species observed within the project site is presented in Appendix A, Plant Species List. All plant species encountered during the field surveys were identified to subspecies or variety, if applicable, to determine sensitivity status. Latin and common names for plant species with a California Rare Plant Rank follow the California Native Plant Society's Online Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2022). For plant species without a California Rare Plant Rank, Latin names follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson 2022) and common names follow the California Natural Community list (CDFW 2022c) or the U.S. Department of Agriculture Natural Resources Conservation Service Plants Database (USDA 2022).

4.3 Special-Status Wildlife Species

No special-status wildlife were observed within the project site during the biological surveys conducted in 2021 and 2022. No special-status wildlife species are expected to occur within the project site based on reasoning including but not limited to available occurrence data, habitat requirements, site elevation, level of disturbance, and surrounding urbanization.

A total of 5 commonly occurring wildlife species were detected and can be found in Appendix B, Wildlife Compendium. Latin and common names of animals follow Crother (2017) for reptiles and amphibians, American Ornithological Society (AOS 2018) for birds, and Wilson and Reeder (2005) for mammals.

During the general habitat assessment, the site was assessed for potential presence of suitable fairy shrimp habitat. Due to the highly disturbed nature of the site (regular mowing and anthropogenic activity), lack of road ruts, earthen depressions, as well as lack of vernal pool associated plant species, it was determined that fairly shrimp were not expected within the project site due to lack of suitable habitat and conditions.

There is no federally designated critical habitat (USFWS 2022b) for special-status wildlife located within the project site.

4.4 Soils

According to the USDA Web Soil Survey, the dominant soil type present within the subject parcel (approximately 62% of the site) is Diablo clay, 2 to 9 percent slopes. There is a minor amount (less than 1% of the site) of Diablo clay, 9 to 15 percent slopes. The Diablo series consists of well-drained moderately deep to deep clays derived from soft calcareous sandstone and shale. These soils are found on uplands. These soils typically have a very slow infiltration rate (high runoff potential) when thoroughly wet (USDA NRCS 1973), which is not conducive to pooling. The second most dominant soil type on site (approximately 37%) is Las Flores loamy fine sand, 2 to 9 percent slopes. The Las Flores soil series is moderately well-drained with medium to rapid runoff and very slow

permeability. All of these soil types underlie disturbed habitat and no signs of vernal pools or vernal pool associated plant species were observed within the survey area.

5 Impacts and Mitigation

The project is expected to permanently impact the entire project site, which consists of 2.54 acres of disturbed habitat, through grading and development of the proposed project. There will likely be an additional 0.15 acres of permanent impacts to the project's frontage onto Capalina Road which is within the public right-of-way and currently consists of disturbed habitat, but will be improved to public street standards by adding a sidewalk, curb, and gutter(s). Finally, the developed area that abuts the western side of the project site is under an SDCWA easement and there is a reciprocal parking agreement for the project, so no improvements are anticipated for this area.

These impacts are shown in Figure 3, Proposed Impacts to Vegetation Communities and Land Cover Types.

Impacts to Group F vegetation communities/land cover types are considered less than significant per the Draft San Marcos Subarea Plan.

Based on the literature and database review, rare plant survey, vegetation mapping, and general habitat assessment there are no sensitive biological resources within the project site. Additionally, no potential wetland or non-wetland waters, jurisdictional aquatic features, or associated riparian habitat were documented within the project site. Therefore, the proposed project would not have any direct impacts to special-status biological resources.

The California Fish and Game Code protects bird nests and the MBTA prohibits the intentional take of any migratory bird or any part, nest, or eggs of any such bird. Construction-related ground-disturbing activities (clearing, grubbing, grading) or other activities that result in the removal of vegetation that occur during the nesting bird season, or any impacts to active nests or the young of nesting bird species, as well as impacts to raptors that could nest in the mature ornamental trees on site, would be potentially significant. This impact shall be mitigated to less than significant through nesting bird surveys and establishment of appropriate buffers, as described in MM-BIO-1 (Nesting Bird Surveys).

MM-BIO-1 Nesting Bird Surveys. Construction-related ground-disturbing activities (e.g., clearing/grubbing, grading, and other intensive activities) that occur during the breeding season (typically February 1 through September 15) shall require a one-time biological survey for nesting bird species to be conducted within the limits of grading within 72 hours prior to construction. This survey is necessary to ensure avoidance of impacts to nesting raptors and/or birds protected by the federal Migratory Bird Treaty Act and California Fish and Game Code, Sections 3503 and 3513. If any active nests are detected, the area shall be flagged and mapped on the construction plans or a biological resources figure, and the information provided to the construction supervisor and any personnel working near the nest buffer. Active nests will have buffers established around them (e.g., 250 feet for passerines to 500 feet for raptors) by the project biologist in the field with brightly colored flagging tape, conspicuous fencing, or other appropriate barriers or signage. The project biologist shall serve as a construction monitor during those periods when construction activities occur near active nest areas to avoid inadvertent impacts to these nests. The project biologist may adjust the

SOURCE: San Diego Public Imagery 2019, Open Street Map 2019

DUDEK

0 40 80 Feet

FIGURE 3

Impacts to Vegetation Communities and Land Cover Types

Capalina Apartments Project

250-foot or 500-foot setback at his or her discretion depending on the species and the location of the nest (e.g., if the nest is well protected in an area buffered by dense vegetation). However, if needed, additional qualified monitor(s) shall be provided in order to monitor active nest(s) or other project activities in order to ensure all of the project biologist's duties are completed. Once the nest is no longer occupied for the season, construction may proceed in the setback areas.

If construction activities, particularly clearing/grubbing, grading, and other intensive activities, stop for more than 3 days, an additional nesting bird survey shall be conducted within the proposed impact area.

Should you have any questions relating to this report and its findings, please do not hesitate to contact me at 760.334.1993 or scarey@dudek.com.

Respectfully Submitted,

Shana Carey

Shana Carey
Biologist

Att.: *Figure 1, Project Location and Vicinity*
Figure 2, Vegetation Communities and Land Cover Types
Figure 3, Proposed Impacts to Vegetation Communities and Land Cover Types
A, Plant Compendium
B, Wildlife Compendium
C, Rare Plant Survey Report

6 References

City of San Marcos. 2001. *Draft Natural Community Conservation Plan for the City of San Marcos*. May 2001.

City of San Marcos. 2012. *City of San Marcos General Plan*. Adopted by City Council Resolution February 14, 2012. https://www.san-marcos.net/work/economic-development/general-plan.p.html

NETR (National Environmental Title Research). 2022. Address search for Capalina Road, San Marcos, California. Accessed October 12, 2022. http://www.historicaerials.com/.

SANDAG (San Diego Association of Governments). 2003. *Multiple Habitat Conservation Program Final MHCP Plan*. Administered by SANDAG. March 2003. https://www.sandag.org/programs/environment/habitat_preservation/mhcp_vol1.pd

U.S. Department of Agriculture 1973 Soil Survey, San Diego Area, California. Soil Conservation Service and Forest Service. Roy H. Bowman, ed. San Diego. December.

Attachment A

Plant Compendium

Angiosperms

Eudicots

AMARANTHACEAE – AMARANTH FAMILY

* Schinus molle – Peruvian pepper tree

ASTERACEAE – SUNFLOWER FAMILY

Ambrosia psilostachya – western ragweed
Baccharis pilularis ssp. *consanguinea* – chaparral broom, coyote brush
Baccharis salicifolia ssp. *salicifolia* – mule-fat, seep-willow
Encelia californica – California encelia
Grindelia camporum – gumplant
Heterotheca grandiflora – telegraph weed
* *Centaurea melitensis* – tocalote
* *Hedypnois cretica* – crete hedypnois

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* *Hirschfeldia incana* – short-pod mustard
* *Rapistrum rugosum* – annual bastard-cabbage

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* *Washingtonia robusta* – Mexican fan palm

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* *Asphodelus fistulosus* – hollow-stem asphodel

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* *Bromus diandrus* – ripgut grass
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* *Festuca perennis* – perennial rye grass
* *Bromus rubens* – foxtail chess, red brome
* *Cenchrus setaceus* – African fountain grass
* *Hordeum murinum* – barley

* signifies introduced (non-native) species

Attachment B

Wildlife Compendium

Birds

Finches

FRINGILLIDAE – FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Haemorhous mexicanus – house finch

Spinus psaltria – lesser goldfinch

Flycatchers

TYRANNIDAE – TYRANT FLYCATCHERS

Sayornis nigricans – black phoebe

Jays, Magpies and Crows

CORVIDAE – CROWS AND JAYS

Corvus brachyrhynchos – American crow

Pigeons and Doves

COLUMBIDAE – PIGEONS AND DOVES

Zenaida macroura – mourning dove

INTENTIONALLY LEFT BLANK

Attachment C

Rare Plant Survey Report

605 THIRD STREET
ENCINITAS, CALIFORNIA 92024
T 760.942.5147 F 760.632.0164

June 1, 2021 13346

Attn: Saba Family Trust
41309 Avenida Biona
Temecula, California 92591

Subject: *Focused Rare Plant Survey Report for Parcel ID 2191153300, City of San Marcos, San Diego County, California*

Dear Saba Family Trust:

Dudek conducted a focused survey for plants that are considered rare, listed, or special status (rare plant survey) on a commercial lot for the Saba Family Trust, Parcel ID 2191153300 (Project). Dudek Botanist, Erin Bergman conducted surveys for the Project on May 21, 2021 with a special emphasis on cluster lilies (*Brodiaea* species). The Project area is a 2.539 acre parcel (Figure 1, Project Location) within the City of San Marcos, the municipality of Oceanside-Escondido, San Diego County, California (the City). This letter report provides the methods and results of the rare plant survey.

1 Introduction

1.1 Project Location

The Project site consists of one parcel within the City, encompassed by development. The Project site is surrounded by commercial lots, paved roads, residential lots, and transportation corridors. The Project site is accessible from Capalina Road or West Mission Road in the City. Central coordinates for the Project parcel are 33.1516 North and 117.1952 West. The Project site has relatively flat topography. The Project site is at an elevation of approximately 595 feet above mean sea level.

2 Rare Plants

2.1 Reference Population Checks

Plant species bloom at slightly different times each year depending on temperature, rainfall patterns, elevation, and other environmental factors. Reference population checks involve locating populations of target species during a timeframe when they are known to be blooming or exhibiting other phenological characteristics that allow for species identification. Observations of reference populations during peak phenology provide assurance that these species would be identifiable if they were present in a Project area.

2.2 Spring Rare Plants

Two rare Brodiaea have high potential to occur in the vicinity of the Project site during the spring season. Orcutt's brodiaea (*Brodiaea orcuttii*) and threadleaf brodiaea (*Brodiaea filifolia*) have been documented as occurring

throughout the City of San Marcos. These species are members of the Brodiaea (Themidaceae) family. Threadleaf brodiaea and Orcutt's brodiaea bloom from March through July in grasslands, freshwater wetlands, wetland/riparian, vernal pools, foothill woodland, and coastal scrub habitats. Orcutt's brodiaea and threadleaf brodiaea are perennial herbs (bulbs). Threadleaf brodiaea occur at elevations between 25 feet and 860 feet above mean sea level. Orcutt's brodiaea occur at elevations between 25 feet and 5,249 feet above mean sea level. Both species have been recorded near the Project site (CNPS 2021; Reiser 2001). The Jepson bioregional range for threadleaf brodiaea is based on the elevation range restrictions (Jepson 2021), which shows its potential range throughout north coastal San Diego County, western Riverside County, southern Orange County, southeast Los Angeles County, and southwestern San Bernardino County. The Jepson bioregional range for Orcutt's brodiaea shows possibility for occurrence throughout most of San Diego County (excluding the very eastern portion), southwestern Riverside County, Orange County, and the southwestern section of San Bernardino County.

San Diego button celery (*Eryngium aristulatum* var. *parishii*) has high potential to occur within the vicinity of the Project site, and is most easily identified during the spring survey season. San Diego button celery is a member of the celery (Apiaceae) family. San Diego button celery blooms from April through July in grasslands with vernal pools, freshwater wetlands, wetland riparian habitat, and coastal sage scrub with vernal pools or vernal wetlands. San Diego button celery is an annual herb and occurs at elevations up to 2,460 feet above mean sea level. San Diego button celery has been recorded near the Project site within San Marcos (CNPS 2021). The Jepson bioregional range for San Diego button celery is based on the elevation range restrictions (Jepson 2021), which shows its potential for occurrence throughout western San Diego County and into parts of central San Diego County, western Riverside County, and throughout north–central Orange County.

3 Methods

3.1 Reference Check Methods

Dudek botanist Erin Bergman conducted a reference check for threadleaf brodiaea, Orcutt's brodiaea, and San Diego button celery on the morning of May 21, 2021, before conducting rare plant surveys. This reference check was based on collections documented within the Calflora database. The Calflora database offers GPS point locations for plant species across California (Calflora 2021). Ms. Bergman collected coordinates from the database as close to the site as possible to ensure phenology would be similar. Ms. Bergman targeted two locations for Brodiaea within a 2 to 5-mile radius of the Project site and one location for San Diego button celery within 5 miles of the Project site. Ms. Bergman observed all species in full bloom (in high densities) before going to the site to perform the field surveys (Attachment A, Reference Site Photos). On May 21, 2021, temperatures for the reference check were between 69°F and 77°F, winds were 0 to 4 miles per hour, and skies were clear. Observe live footage of reference check on May 21, 2021, for Orcutt's brodiaea here: https://www.youtube.com/watch?v=ZF1OzxrWjFk and live footage of reference check on May 21, 2021, for threadleaf brodiaea here: https://www.youtube.com/watch?v=u1-kSCX0G-w

3.2 Focused Special-Status Plant Survey

Ms. Bergman conducted a focused special-status rare plant survey within the Project site on May 21, 2021. Conditions for the survey were the same as those for the reference check—temperatures were between 69°F and

77°F, winds were 0 to 4 miles per hour, and skies were clear. Surveys for special-status species were conducted within the Project site by walking transects. Ms. Bergman used both the Collector mobile application and Dudek forms mobile application to record data and map any rare plant species. Transects were included in the Collector mobile application as guidance. These transects were spread at a distance of 10 feet to cover every section of the Project site, including areas with high-density vegetation. Ms. Bergman followed these 10-foot transect lines across the Project site. Focused special-status plant surveys conformed to the California Native Plant Society Botanical Survey Guidelines (CNPS 2001), Protocols for Surveying and Evaluating Impacts to Special Status Native Populations and Natural Communities (CDFG 2009), and U.S. Fish and Wildlife Services General Rare Plant Survey Guidelines (Cypher 2002).

All plant species encountered during the field surveys were identified to subspecies or variety, if applicable, to determine sensitivity status. Moreover, all plant species encountered in the field were recorded. Latin and common names for plant species with a California Rare Plant Rank follow the California Native Plant Society's Online Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2021). For plant species without a California Rare Plant Rank, Latin names follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson 2021) and common names follow the California Natural Community list (CDFW 2021) or the U.S. Department of Agriculture Natural Resources Conservation Service Plants Database (USDA 2021).

3.3 Survey Limitations

There were no factors that limited the results of the focused rare plant survey. The focused rare plant survey was conducted on May 21, 2021, the same day that rare plant surveys on the Project site were performed, which is considered reasonable timing for spring blooming rare plant species.

Rainfall was enough that threadleaf brodiaea, Orcutt's brodiaea, and San Diego button celery were observed less than two miles from the Project site in very high densities. Therefore, these species would have been observed if present.

All surveys were conducted during daylight hours under weather conditions that did not preclude observation of plant species (e.g., surveys were not conducted during heavy fog or rain).

4 Results

4.1 Plant Species Diversity

Ms. Bergman observed 32 species that are included in the plant compendium (Attachment B) during the spring season survey.

A total of 32 species from the Project site are listed in Attachment B, Plant Compendium, of which 6 are native (19%) and 26 non-native (81%). This low native plant diversity reflects the high density of non-native species that have created monotypic stands. The site is dominated almost entirely by monotypic stands of annual bastardcabbage (*Rapistrum rugosum*) and ripgut brome (*Bromus diandrus*) (See Attachment C, Site Photos).

4.2 Rare Plant Location Results

No rare plants were observed within the Project site.

5 Discussion

The focused rare plant survey found no rare plants during the spring bloom period within the Project site.

Both brodiaea species were blooming within the City of San Marcos on two nearby parcels. Reference checks found Brodiaea blooming with relatively high density less than 2 miles from this site (May 21, 2021). San Diego button celery was observed less than one mile from the site in full bloom and in high density numbers. If threadleaf brodiaea, Orcutt's brodiaea, San Diego button celery, or other rare spring species were present, they would have been observed during the rare plant survey.

It should be noted that rare plants can be found on disturbed sites. However, this site was extraordinarily disturbed with European grasses and broadleaf mustards. The non-natives occurred at such a high density that few native plant species were present. Due to the density and success of non-native species on-site, monotypic stands of non-native grasses and mustard have formed. The Project site has limited plant species diversity.

San Diego button celery typically occurs within wetlands, or grassland habitat with vernal pools which were absent from the Project site. No wetlands were present within the Project site.

A few other rare species had low potential to occur like San Diego thorn-mint (*Acanthomintha ilicifolia*) and small-flowered morning glory (*Convolvulus simulans*). However, due to the levels of disturbance within the Project site and sensitivity of these species, these rare plant species are not expected to occur. In addition, spreading navarretia (*Navarretia fossalis*) had low potential to occur but due to the absence of vernal wetlands, vernal pools, wetlands, and the sensitivity of this species to non-natives, spreading navarretia is not expected to occur.

Overall, the site is exceptionally disturbed, lacks rare spring plant species, and is encompassed by development.

If you have any questions regarding this letter report, please feel free to contact me at ebergman@dudek.com.

Sincerely,

Erin Bergman
Botanist

Att.: *Figure 1*
Attachment A, Reference Site Photos
Attachment B, Plant Compendium
Attachment C, Project Site Photos
cc: *Saba Family Trust*
Callie Amoaku, Dudek

6 References

Calflora. 2021. Calflora Plant Database. Accessed July 2020. https://www.calflora.org/.

CDFG (California Department of Fish and Game). 2009. *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*. Prepared by the California Natural Resources Agency, Department of Fish and Game. November 24, 2009.

CDFW (California Department of Fish and Wildlife). 2021. Natural Communities List Arranged Alphabetically by Life Form. January 24, 2018. Accessed April 2021. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153398&inline.

CNPS (California Native Plant Society). 2001. *California Native Plant Society Botanical Survey Guidelines*. December 9, 1983; revised June 2, 2001. https://cnps.org/wp-content/uploads/2018/03/cnps_survey_guidelines.pdf.

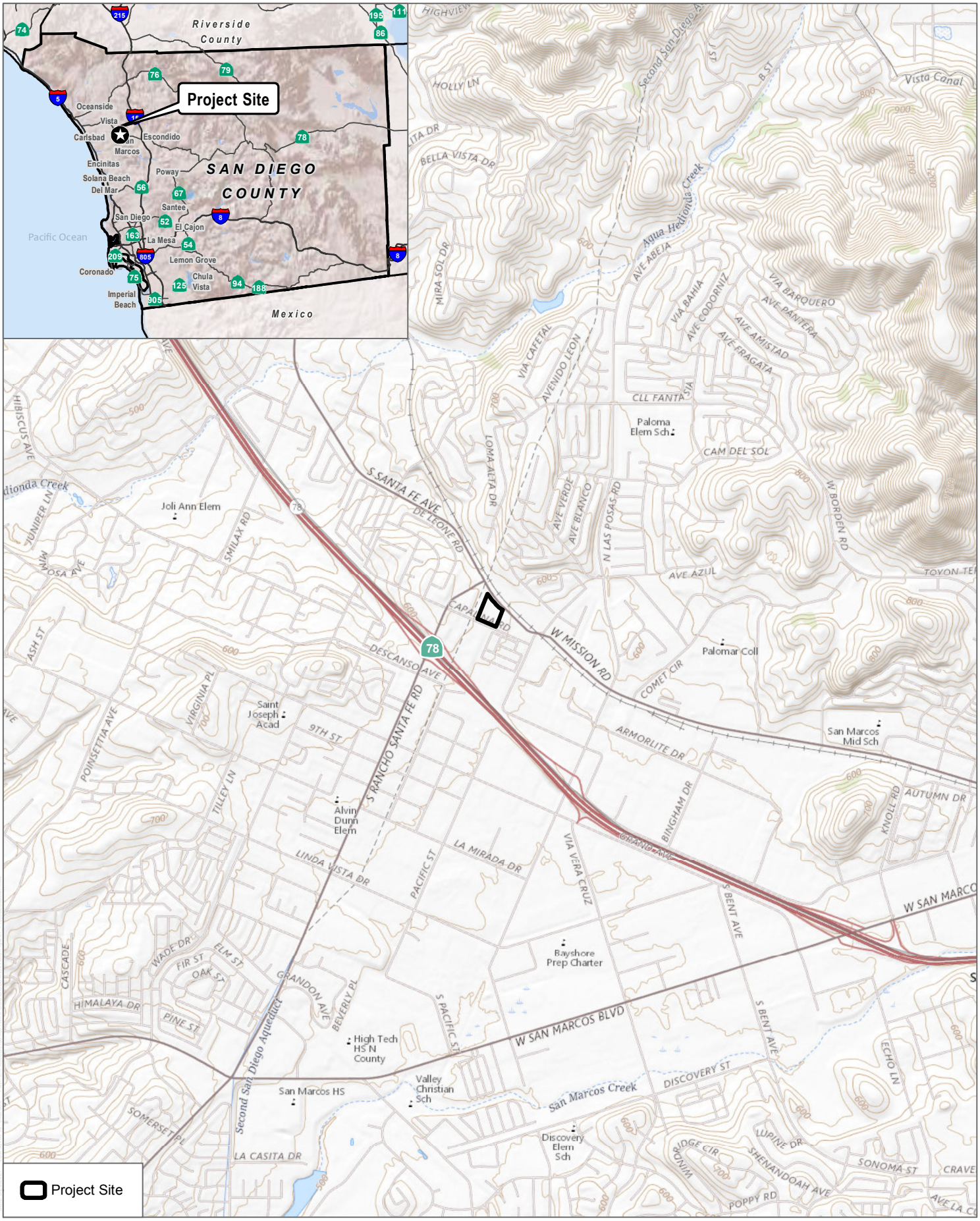
CNPS. 2021. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Accessed 2021. http://www.rareplants.cnps.org.

Cypher, E. 2002. *General Rare Plant Survey Guidelines*. https://www.fws.gov/sacramento/es/Survey-Protocols-Guidelines/Documents/rare_plant_protocol.pdf.

Jepson Flora Project. 2021. "Jepson eFlora." The Jepson Herbarium. Accessed May 2021. http://ucjeps.berkeley.edu/interchange/index.html.

Reiser. 2001. *The Rare Plants of San Diego County*. Accessed July 2020. https://download-pdfs.com/v6/preview/?pid=6&offer_id=398&ref_id=15ae1c2c6c59dae7cf96a4nE0Th5Qm0h_e6cef1e4_c28f910b&sub1=fh9643&keyword=Rare%20plants%20of%20San%20Diego%20County%20-%20Craig%20H.%20Reiser.

USDA (U.S. Department of Agriculture). 2021. "California." State PLANTS Checklist. Accessed May 2021. http://plants.usda.gov/dl_state.html.



SOURCE: USGS 7.5-Minute Series San Marcos Quadrangle

DUDEK

0 1,000 2,000 Feet

FIGURE 1

Project Location

Saba Family Trust

Attachment A

Reference Site Photos

	
Orcutt's brodiaea (*Brodiaea orcuttii*)	Threadleaf brodiaea (*Brodiaea filifolia)*
	
San Diego button celery (*Eryngium aristulatum* var. *parishii*)	

Attachment B

Plant Compendium

Angiosperms

Eudicots

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* *Hordeum murinum* – barley

* signifies introduced (non-native) species

Attachment C

Project Site Photos