Diamond Street Industrial

Technical Appendices

Appendix C1

Biological Resources Report

Melrose and Diamond Industrial Project

Biological Resources Assessment

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Executive Summary

This Biological Resources Assessment report documents the findings of a biological survey conducted by Rincon Consultants, Inc. (Rincon) and evaluates potential impacts from the implementation of the Melrose and Diamond Industrial Project located in the city of San Marcos (City), California. The 22.89-acre project site is located northeast of the intersection of Melrose Drive and Diamond Street. The project proposes to split the site into two parcels: A and B. Parcel A would have approximately 16.12 acres and would be developed into an industrial pad with associated 2:1 graded slopes; Parcel B would contain approximately 6.77 acres of designated open space. Project development includes the following components:

- An existing Community Facilities District-landscaped slope in the western portion of the site adjacent to Melrose Drive would be reconfigured
- A private driveway originating from the intersection of Melrose Drive and Diamond Street would be constructed along a portion of the southeast project site boundary
- A water quality basin would be constructed in the southern corner of the project site adjacent to Melrose Drive
- A desiltation basin would be constructed in the eastern corner of the site

The study area has a history of disturbance and contains fill from prior adjacent land uses including a quarry and the Brookfield Homes residential development. A Final Map (Map No. 12781) for City of San Marcos Tract No. 292 was recorded for the site in the early 1990s encompassing the entire project site with an industrial project. The City subsequently in their General Plan Update looked to identify a wildlife corridor in the approximate northeastern portion of the property in 2012. Existing structures on the project site include a utility tower associated with a 150-foot wide San Diego Gas and Electric Easement in the southwestern portion of the site and a number of storm drain pipe pieces in the central portion of the site along the eastern boundary. Multiple dirt trails throughout the site suggest off-road vehicle and pedestrian use. Several open geotechnical excavations were also observed throughout the site. These open excavations were assumed to be geotechnical in origin due to a known geotechnical study prepared by Geocon, Inc. on the site in 2001 (Geocon 2001).

The project site is located within the boundaries of the San Diego Association of Governments (SANDAG) Final Multiple Habitat Conservation Program (MHCP), but not within a Focused Planning Area (FPA) or Biological Core and Linkage Area. One MHCP-covered species, wart-stemmed ceanothus, is present on the project site. Conservation of this species on the project site is not required under the MHCP since the project site is outside of an FPA. Several special-status wildlife species also have potential to occur on the project site. The project site also contains vegetation communities considered sensitive by the MHCP, including Coastal Sage Scrub-Chaparral Transition, Diegan Coastal Sage-Scrub, Disturbed Diegan Coastal Sage Scrub, Natural Floodchannel/Streambed, and Mulefat Scrub. Implementation of mitigation measures described in this report would reduce potential impacts to these species and sensitive habitats to less than significant.

The project site also contains 0.21 acre of San Diego Regional Water Quality Control Board (RWQCB) non-wetland waters of the State and 0.45 acre of California Department of Fish and Wildlife (CDFW) jurisdictional area. Project implementation would permanently impact 0.06 acre of RWQCB waters of the State and 0.12 acre of CDFW jurisdictional area. Implementation of the mitigation measures described in this report would reduce these impacts to less than significant.

1 Introduction

This Biological Resources Assessment (BRA) provides information pertaining to the existing biological resources observed by Rincon for the Melrose and Diamond Industrial Project (project). This BRA includes a description of relevant biological resources present or potentially present on the project site. The purpose of this BRA is to document the existing conditions of the site and to evaluate the potential for impacts to biological resources, facilitating the City's environmental review of the project. This BRA is based on a desktop analysis and reconnaissance survey, and does not constitute a focused survey report for listed or other special-status species or a formal permitting-level jurisdictional delineation report for waters of the State or waters of the U.S.

1.1 Project Location and Description

The 22.89-acre project site is identified as Assessor Parcel Numbers 223-341-03 through -014 and -016. The project site is located northeast of the intersection of Melrose Drive and Diamond Street in the city of San Marcos, San Diego County, California (Figure 1), and can be found on the U.S. Geologic Survey (USGS) *Rancho Santa Fe, California* 7.5-minute topographic quadrangle map as seen in Figure 2.

The project proposes to split the site into two parcels: A and B. Parcel A would have approximately 16.12 acres and would be developed into an industrial pad with associated 2:1 graded slopes; Parcel B would contain approximately 6.77 acres of designated open space. Project development on Parcel A includes the following components:

- An existing Community Facilities District-landscaped slope in the western portion of the site adjacent to Melrose Drive would be reconfigured
- A private driveway originating from the intersection of Melrose Drive and Diamond Street would be constructed along a portion of the southeast project site boundary
- A water quality basin would be constructed in the southern corner of the project site adjacent to Melrose Drive
- A desiltation basin would be constructed in the eastern corner of the site

1.2 Surrounding Land Uses and Setting

The site is bounded by the following as seen in Figure 3:

- A citrus grove (designated in the County as permanent open space) to the north
- Designated open space managed by the Center for Natural Lands Management to the northwest, east and southeast
- Industrial development to the southwest
- Residential development to the west

The project site is approximately 0.5 mile southwest of Lake San Marcos and west of San Marcos Creek, as seen on Figure 2.

Figure 1 Regional Location

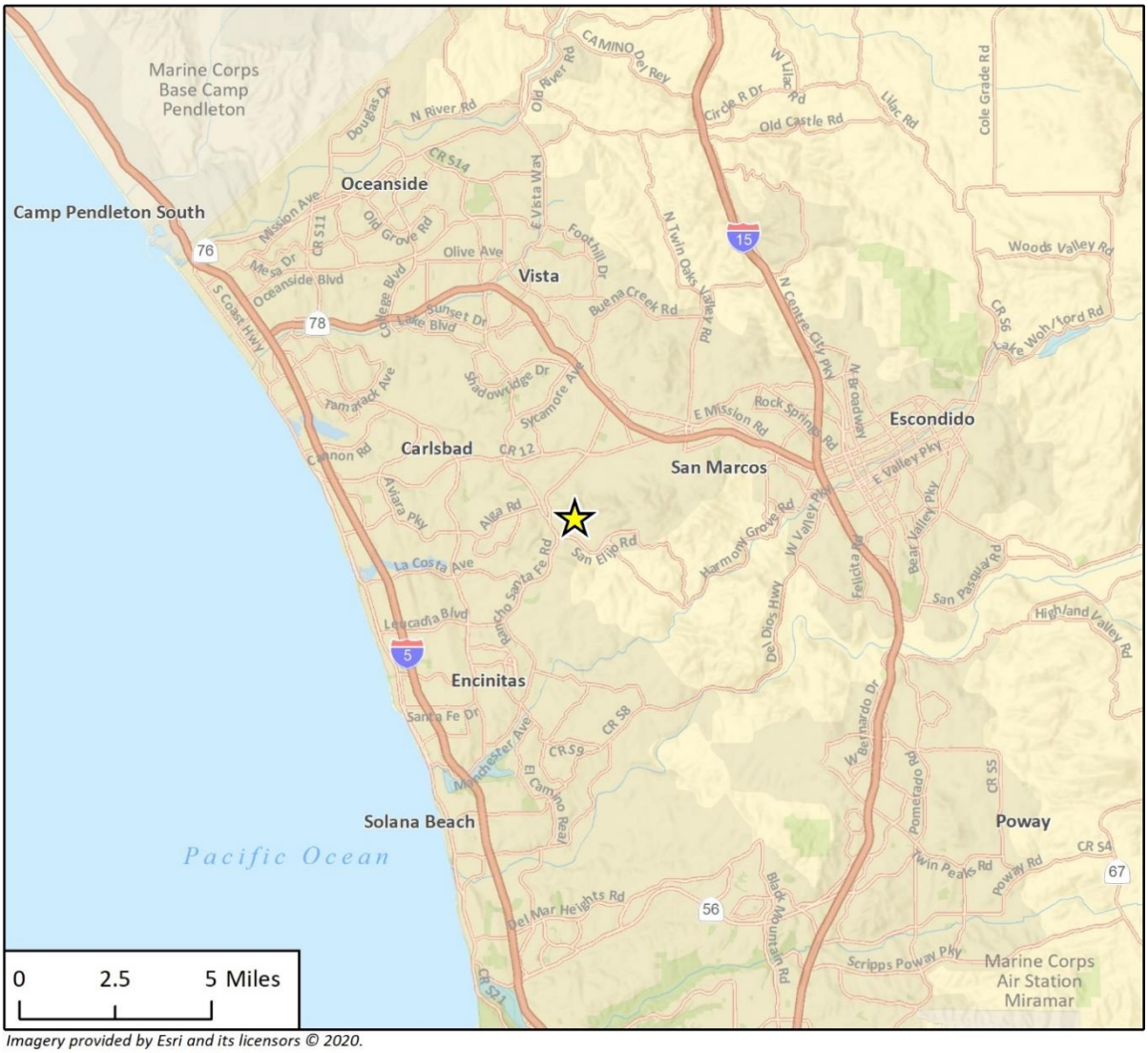
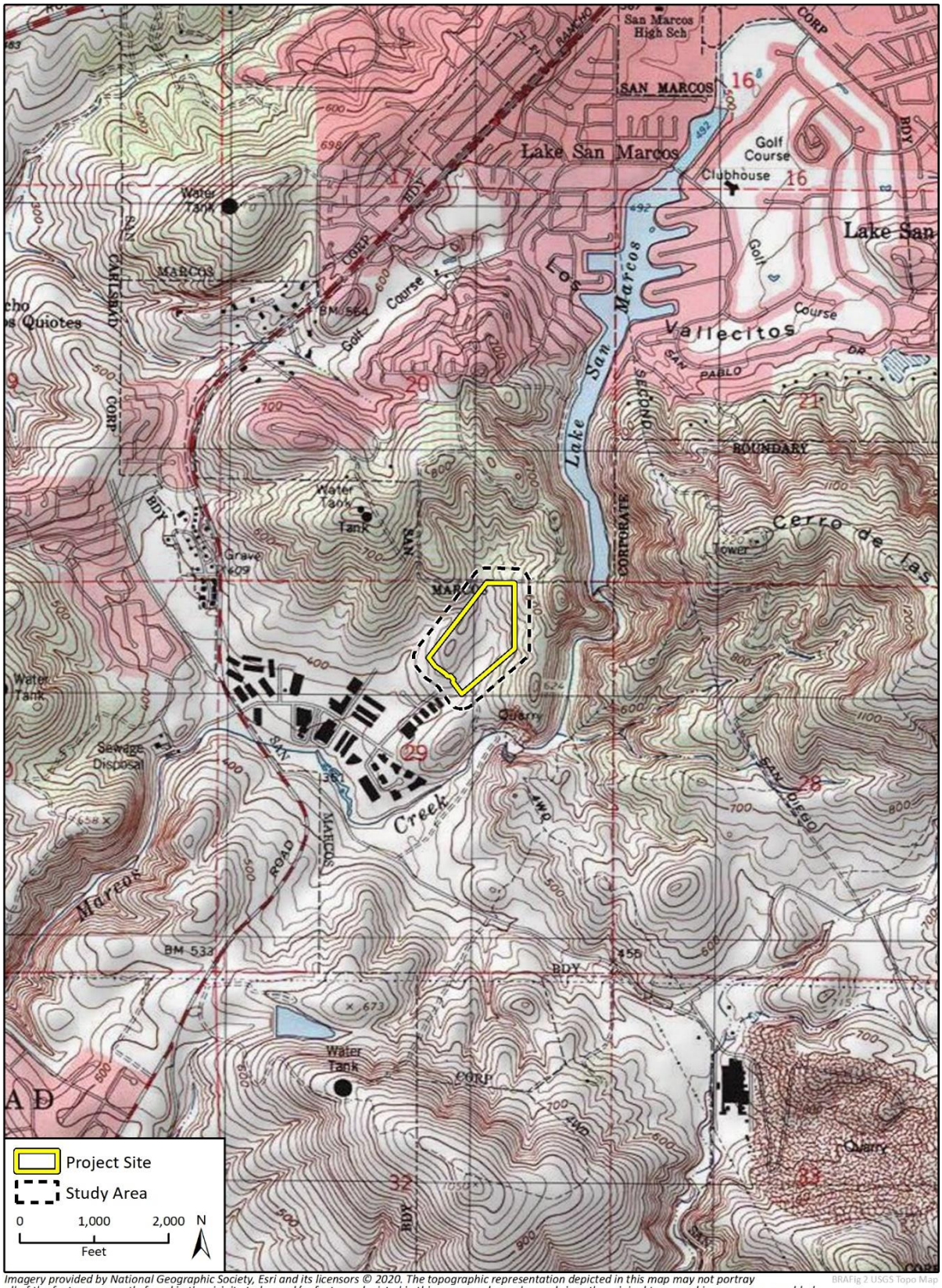


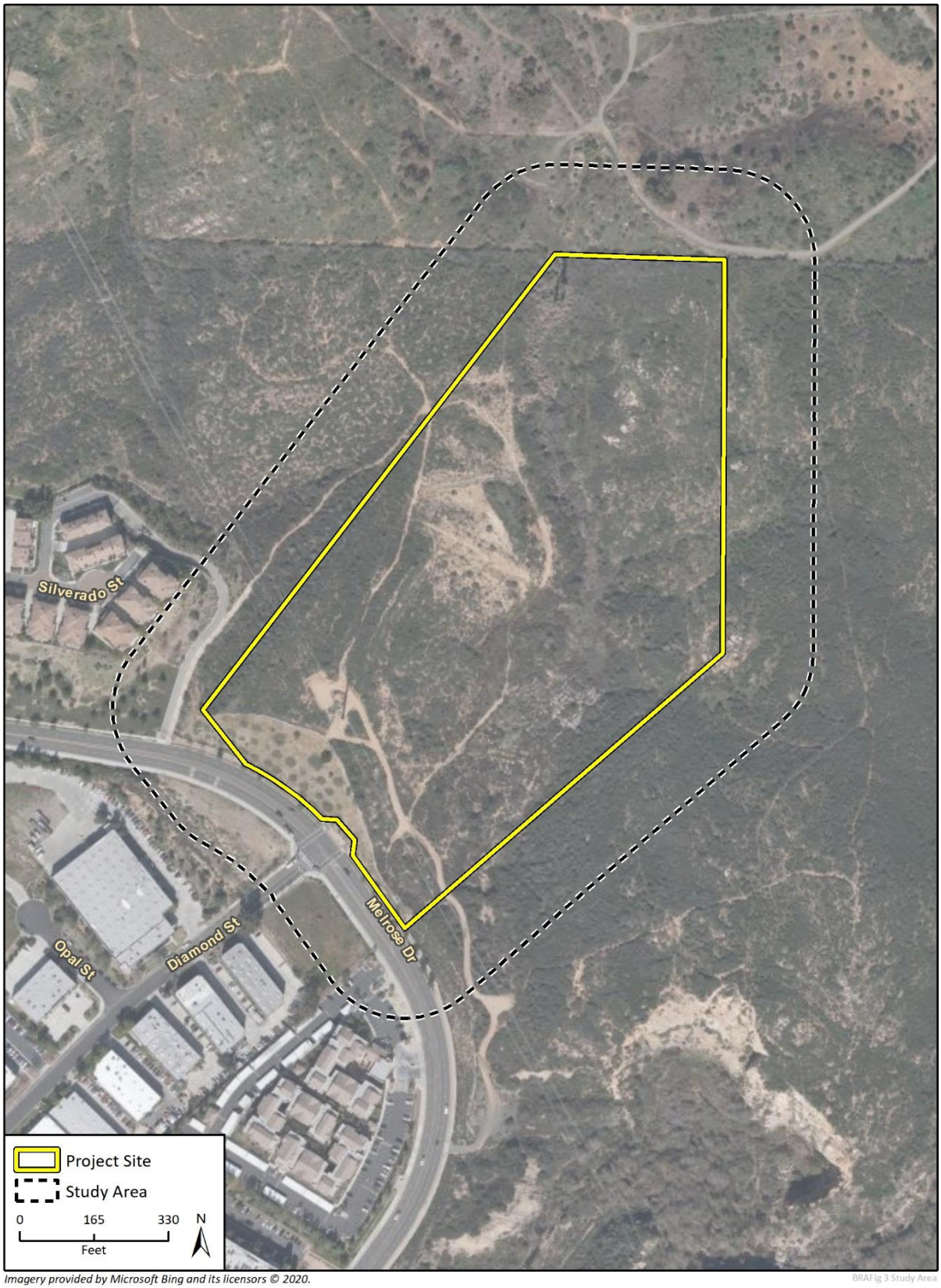
Figure 2 USGS Topographic Map



Imagery provided by National Geographic Society, Esri and its licensors © 2020. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

BRAFig 2 USGS Topo Map

Figure 3 Study Area



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BRAFig 3 Study Area

2 Methodology

Biological conditions within the study area (project site and 200-foot buffer) were evaluated by confirming applicable biological regulations, policies, and standards; reviewing biological literature and querying available databases pertinent to the study area and vicinity; and conducting a reconnaissance-level biological survey of the study area. The methods employed are described in detail below. The findings and opinions conveyed in this BRA are based on this methodology; therefore, all quantitative impact assumptions are estimates.

2.1 Regulatory Overview

Regulated or sensitive resources studied and analyzed herein include special-status plant and animal species, nesting birds and raptors, sensitive plant communities, jurisdictional waters and wetlands, wildlife movement, and locally protected resources, such as protected trees. For the purpose of this BRA, potential impacts to biological resources were analyzed based on the following statutes and regulations:

Federal

- Federal Endangered Species Act (ESA) (16 U.S. Code [USC] Sections [§§] 1531 - 1544)
- Federal Clean Water Act (CWA) (33 USC §§ 1251 - 1376)
- Migratory Bird Treaty Act (MBTA) (16 USC §§ 703 - 711)
- The Bald and Golden Eagle Protection Act (16 USC §§ 668 – 668d)
- Navigable Waters Protection Rule (United States Environmental Protection Agency and United States Army Corps of Engineers [USACE] 2020)

State

- California Environmental Quality Act (CEQA)
- California Endangered Species Act (CESA)
- California Fish and Game Code (CFGC) (CFGC Section [§] 1600 et seq.)
- Native Plant Protection Act (NPPA) (CFGC §§ 1900 – 1913)
- Porter-Cologne Water Quality Control Act (California Water Code section 13000 et seq.)

Local

- SANDAG Final MHCP Volume I and II
- City of San Marcos General Plan (2013)
- City of San Marcos Draft Subarea Habitat Conservation Plan/Natural Communities Conservation Plan (Subarea Plan)

Multiple Habitat Conservation Program

The MHCP is a comprehensive conservation planning process that addresses the needs of multiple plant and animal species in northwestern San Diego County. The MHCP covers the cities of Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach, and Vista. Its goal is to conserve

approximately 19,000 acres of habitat, of which roughly 8,800 acres (46 percent) are already in public ownership and contribute toward the habitat preserve system for the protection of rare, threatened, or endangered species (AMEC Earth & Environmental, Inc. [AMEC] et al. 2003a, 2003b).

The MHCP Subregional Plan and Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR) were adopted and certified by the SANDAG Board of Directors on March 28, 2003. A Subarea Plan for the City has been prepared, but it must be adopted by the City and implementing agreements with the CDFW and United States Fish and Wildlife Service (USFWS) must be signed before incidental take permits can be issued.

FOCUS PLANNING AREAS

The MHCP identifies a series of FPAs within which some lands will be dedicated for preservation of native habitats. These areas contain both "hard line" areas, which will be preserved as open space, and "soft line" areas, which will include both development and open space to be determined through the planning process (AMEC et al. 2003a, 2003b). Several objectives were incorporated into the process of designing the MHCP FPAs:

- Conserve as much of the biologically most important habitat lands remaining in the subregion as possible, in a system that minimizes preserve fragmentation
- Maximize the inclusion of public lands within the preserve
- Maximize the inclusion of lands already conserved as open space, where appropriate
- Maintain individual property rights and economic viability for the subregion (AMEC et al. 2003a, 2003b)

BIOLOGICAL CORE AND LINKAGE AREAS

The MHCP identifies Biological Core and Linkage Areas (BCLA) as those areas determined biologically valuable for inclusion in the regional preserve system (AMEC et al. 2003a, 2003b). BCLAs were designed to conserve sensitive species and corridors between areas of high-quality habitat and to provide avenues for wildlife movement between these areas.

COVERED SPECIES

A covered species is one for which take authorization would be provided under the MHCP because long-term viability was determined to be adequately maintained under a particular preserve system design. The federal action addressed in the MHCP is the issuance of incidental take permits for all species on the Covered Species list whether they currently are listed or are to be listed in the future. The MHCP covered species include 20 plant species and 30 wildlife species.

City of San Marcos Draft Subarea Habitat Conservation Plan/Natural Communities Conservation Plan

The City Draft Subarea Habitat Conservation Plan/Natural Communities Conservation Plan (hereafter, Draft Subarea Plan) comprehensively addresses how the City will conserve natural biotic communities and sensitive plant and wildlife species. The Draft Subarea Plan has been prepared in response to direction from the USFWS and the CDFW to meet the applicable requirements of the federal and State Endangered Species Acts and the Natural Community Conservation Planning Act of 1992. The City's Draft Subarea Plan is not formally approved and adopted, so all projects are required to obtain applicable permits for impacts to listed species as per Section 10 or Section 7 of the ESA. Also, because the City does not have an approved Subarea Plan, the mitigation

requirements for impacts to the biological resources are based on ratios provided by the approved MHCP (AMEC et al. 2003a, 2003b). Although the Draft Subarea Plan has not yet been approved, the City has used the plan as a guide for open space design and preservation.

City of San Marcos General Plan

The Conservation and Open Space Element of the 2013 San Marcos General Plan contains several policies pertaining to the protection of biological resources (City of San Marcos 2013). The following goals and policies apply to the project:

- **Goal COS-1:** Identify, protect, and enhance significant ecological and biological resources within San Marcos and its adaptive Sphere of Influence.
  - **Policy COS-1.1:** Support the protection of biological resources through the establishment, restoration, and conservation of high-quality habitat areas
  - **Policy COS-1.2:** Ensure that new development, including Capital Improvement Projects, maintain the biotic habitat value of riparian areas, oak woodlands, habitat linkages, and other sensitive biological habitats
- **Goal COS-2:** The City is committed to conserving, protecting, and maintaining open space, agricultural, and limited resources for future generations. By working with property owners, local organizations, and state and federal agencies, the City can limit the conversion of resource lands to urban uses.
  - **Policy COS-2.1:** Provide and protect open space areas throughout the City for its recreational, agricultural, safety, and environmental value
  - **Policy COS-2.2:** Limit, to the extent feasible, the conversion of open space to urban uses and place a high priority on acquiring and preserving open space lands for recreation, habitat protection and enhancement, flood hazard management, water and agricultural resources protection, and overall community benefit
  - **Policy COS-2.6:** Preserve healthy mature trees where feasible; where removal is necessary, trees shall be replaced at a ratio of 1:1

2.2 Guidelines for Determining CEQA Significance

The following threshold criteria, as defined by the CEQA Guidelines Appendix G Initial Study Checklist, were used to evaluate potential environmental effects. Based on these criteria, the proposed project would have a significant effect on biological resources if it would:

a) *Have substantial adverse effects, 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 Wildlife or U.S. Fish and Wildlife Service.*

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

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

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

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

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

2.3 Literature and Database Review

Information on biological resources was compiled from a variety of publicly available sources including:

- Aerial imagery
- Topographic map of *Rancho Santa Fe, California* USGS 7.5-minute topographic quadrangle (USGS 2020a)
- CDFW's *California Natural Diversity Data Base* (CNDDB) was queried for special-status plant and wildlife species and communities in the project region, defined as within a five (5)-mile radius of the study area (CDFW 2020a)
- California Native Plant Society's (CNPS) *Inventory of Rare and Endangered Plants of California* (online edition) was queried for special-status plant species in the project region, defined as the *Rancho Santa Fe, California* USGS 7.5-minute topographic quadrangle and surrounding eight quadrangles (CNPS 2020)
- Biogeographic Information and Observation System (BIOS) (CDFW 2020b)
- Special Animals List (CDFW 2020c)
- Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2020d)
- National Hydrography Dataset (USGS 2020b)
- USFWS Critical Habitat Portal (USFWS 2020a)
- USFWS National Wetlands Inventory (NWI) (USFWS 2020b)
- U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA NRCS 2020)
- Multiple Species Conservation Program for the Cities of Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach, and Vista Volume I and II (County of San Diego, 2009)
- SANDAG *Parcel Lookup Tool* was reviewed to determine areas designated in the MHCP Subarea Plan (SANDAG 2020)
- SanGIS geographic information system data regarding biological resources was reviewed (SanGIS 2020)
- Natural Community Conservation Plan for the City of San Marcos (City of San Marcos 2001)
- The City General Plan (City of San Marcos 2013)
- Biological Resources Report and Impact Assessment for the Diamond Street Extension Project (Dudek & Associates, Inc. 2002)
- Geotechnical Investigation for Martin Business Park, City of San Marcos T.S.M. 292 (Geocon, Inc. 2001)

2.4 California Gnatcatcher Protocol Survey

As described in the Biological Resources Report and Impact Assessment for the Diamond Street Extension Project (Dudek & Associates, Inc. 2002), a focused survey for coastal California gnatcatcher (CAGN, *Polioptila californica californica*) was conducted. Dudek & Associates, Inc. (Dudek) wildlife biologist Jeffrey D. Priest (Permit No. TE840619-1) conducted protocol surveys for CAGN on August 15, August 22, and September 11, 2002.

2.5 Reconnaissance Survey

On June 18, 2020, Rincon biologists Jared Reed and Emily Kochert conducted a biological reconnaissance field survey from 0630 to 1430 to document existing biological conditions within the study area, including plant and wildlife species, vegetation communities, jurisdictional waters and wetlands, and the potential for presence of special-status species and/or habitat. Temperatures ranged from 63 to 80 degrees Fahrenheit during the survey with overcast skies at 0630 to clearing and partly sunny skies by 1430.

The survey consisted of walking meandering transects throughout the study area, where accessible. The biologists visually scanned for special-status species (or sign thereof) and habitats suitable for these species. Binoculars were used to scan those areas otherwise inaccessible by foot and to scan shrubs for the presence of nests.

A jurisdictional delineation was also conducted using a sub-meter accurate Trimble hand-held GPS unit. Any potentially jurisdictional aquatic resources encountered were documented. The biologists dug two soil pits and assessed general soil characteristics using the Web Soil Survey and hydric soils list to determine if soils mapped in the area were hydric (USDA NRCS 2020a and b). The biologists also assessed these sample points for the presence of hydrophytic vegetation and wetland hydrology. The lateral limits of San Diego RWQCB-jurisdictional “waters of the State” were determined based on the Ordinary High Water Mark. The lateral limits of CDFW jurisdiction were determined based on the bed and bank widths or the outermost extent of riparian vegetation, whichever was greater.

2.6 Vegetation Communities

Vegetation classification was based on the classification systems provided in the Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008) to provide consistency with the SANDAG MHCP; and modified as appropriate to reflect the existing site conditions. Where applicable, vegetation communities were further classified using A Manual of California Vegetation, Second Edition (Sawyer et al. 2009) to better identify the species composition and provide consistency with CDFW classifications. Sensitive vegetation community ranking is based on MHCP habitat groups (SANDAG 2003). The MHCP designates six habitat group categories:

- Group A. Wetland Communities
- Group B. Rare Upland
- Group C. Coastal Sage Scrub
- Group D. Chaparral

- Group E. Annual Grassland
- Group F. Other

2.7 Flora

All plant species observed in the study area were noted, and plants that could not be identified in the field were identified later using taxonomic keys (Baldwin et al. 2012). The reconnaissance survey included a directed search for special-status plants that would have been apparent at the time of the survey.

2.8 Fauna

Animal species observed directly or detected from calls, tracks, scat, nests, or other sign were documented. Zoological nomenclature for birds is in accordance with the Cornell Lab of Ornithology (Cornell University 2020); for mammals using Mammals of California (Wilson and Reeder 2005); and for amphibians and reptiles using Society for the Study of Amphibians and Reptiles' (SSAR) Checklist of the Standard English & Scientific Names of Amphibians & Reptiles (SSAR 2017).

2.9 Survey Limitations

The potential presence of special-status species is based on the literature review and field survey that intended to assess general habitat suitability within the study area only. Definitive surveys to confirm the presence or absence of special-status species were not performed and are not included in this BRA. The findings and opinions included in this BRA are based exclusively on the above methodology. The survey was conducted outside of the typical blooming period for several the common and special-status plant species. As the survey was performed during the day, identification of nocturnal animals was limited to detected sign if present on site.

2.10 Special-Status Biological Resources Assessments

Local, state, and federal agencies regulate special-status species and other sensitive biological resources, and may require an assessment of their presence or potential presence to be conducted prior to the approval of proposed development on a property. This section discusses sensitive biological resources observed in the study area and evaluates the potential for the study area to support additional sensitive biological resources. Assessments for the potential occurrence of special-status species are based upon known ranges, habitat preferences for the species, species occurrence records from the CNDDB, species occurrence records from other sites in the vicinity of the study area, previous reports for the study area, and the results of surveys of the study area. The potential for each special-status species to occur in the study area was evaluated according to the following criteria:

- **No Potential.** Habitat on and adjacent to the study area is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, project area history, disturbance regime); for plants, the species has no recorded occurrences within 5 miles of the study area indicating that the study area may be outside of the range of the species (e.g., the species is known from Coastal Sage Scrub, but only along the coastal

margin); or, the species is conspicuous and would have certainly been identified on site if present (e.g., oak trees). Protocol surveys (if conducted) did not detect species.

- **Low Potential.** The species is not likely to be found on the study area. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the study area is unsuitable or of very poor quality, and/or there are no recent records of the species within 5 miles of the study area.
- **Moderate Potential**. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the study area is unsuitable. The species has a moderate probability of being found on the study area.
- **High Potential.** All the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the study area is highly suitable. The species has a high probability of being found on the study area.
- **Present.** Species is observed on the study area or has been recorded (e.g., CNDDB, other reports) on the study area recently (within the last five years).

For the purpose of this BRA, special-status species are those plants and animals listed, proposed for listing, or candidates for listing as Threatened or Endangered by the USFWS under the ESA; those listed as Threatened, Endangered, or Rare by the CDFW under CESA or the NPPA; those designated as Fully Protected species by the State; those recognized as Species of Special Concern (SSC) or a Watch List (WL) species by the CDFW; Covered Species identified in the MHCP; and regulations and plants occurring on lists 1 and 2 of the CNPS California Rare Plant Rank (CRPR) system per the following definitions:

- **CRPR 1A** = Plants presumed extirpated in California and either rare or extinct elsewhere;
- **CRPR 1B** = Plants rare, threatened, or endangered in California and elsewhere;
- **CRPR 2A** = Plants presumed extirpated in California but common elsewhere;
- **CRPR 2B** = Plants rare, threatened, or endangered in California but more common elsewhere;

Additionally, CNPS assigns the following threat codes:

- 0.1 - Seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat);
- 0.2 – Moderately threatened in California (20-80 percent occurrences threatened/moderate degree and immediacy of threat); and
- 0.3 - Not very threatened in California (<20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known).

3 Results

This section discusses the results of the site visit, description of site conditions, and an evaluation of the potential for federal and state listed species to occur. A compendium of plant and wildlife species observed in the study area is included as Appendix A. Photographs of the study area are included as Appendix B.

3.1 Existing Conditions

The study area has a history of disturbance and contains fill from prior adjacent land uses including a quarry and the Brookfield Homes residential development. A Final Map (Map No. 12781) for City of San Marcos Tract No. 292 was recorded for the site in the early 1990s encompassing the entire project site with an industrial project. The City subsequently in their General Plan Update looked to identify a wildlife corridor in the approximate northeastern portion of the property in 2012. Existing structures on the project site include a utility tower associated with a 150-foot wide San Diego Gas and Electric Easement in the southwestern portion of the site and a number of storm drain pipe pieces in the central portion of the site along the eastern boundary. Multiple dirt trails throughout the site suggest off-road vehicle and pedestrian use. Several open geotechnical excavations were also observed throughout the site. These open excavations were assumed to be geotechnical in origin due to a known geotechnical study prepared by Geocon, Inc. on the site in 2001 (Geocon 2001).

Topography and Soils

The topography of the study area consists of steep to gently sloping rocky hills in the western, northeastern and eastern portions of the site and an intervening canyon generally running north to south in the central portion of the site, with elevations ranging from approximately 430 feet above mean sea level (AMSL) in the south corner to approximately 565 feet AMSL in the northeast corner. Soils underlying the study area consist of the following two types, as shown mapped Figure 4, Cieneba rocky coarse sandy loam, 9 to 30 percent slopes, eroded; and Exchequer rocky silt loam, 30 to 70 percent slopes (NRCS 2020a). The following are the official soils series descriptions for each soil series (NRCS 2020b).

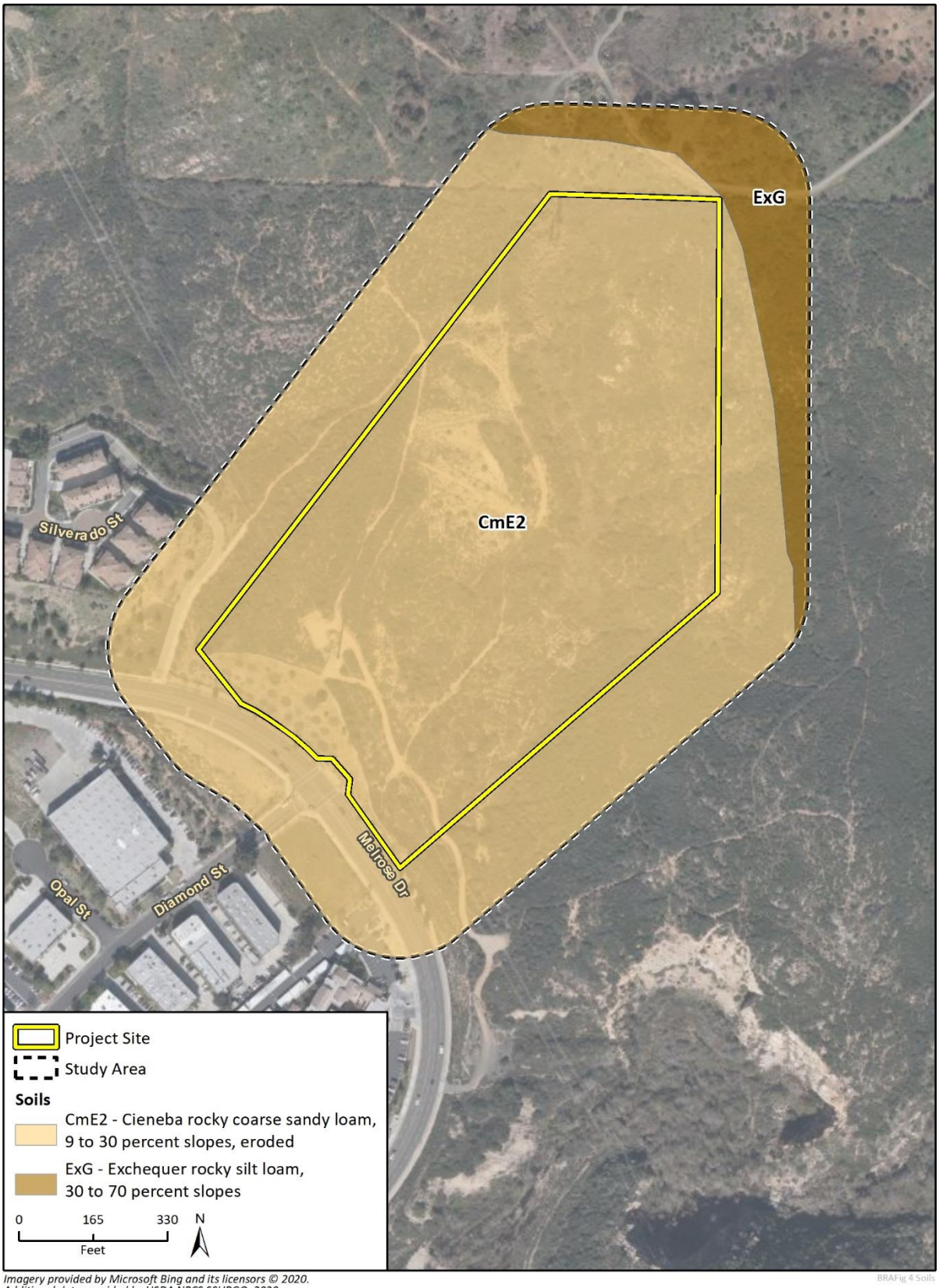
Cieneba Series

Cieneba rocky coarse sandy loam, 9 to 30 percent slopes, comprises most of the study area. The Cieneba series consists of very shallow and shallow, somewhat excessively drained soils that formed in material weathered from granitic rock. The soils have low to high runoff, with moderately rapid permeability in the soil and much slower in the weathered bedrock. Associated vegetation is typically chaparral, with widely spread foothill pine (*Pinus sabiniana*) or oak (*Quercus* spp.) tree; chaparral vegetation is found in portions of the study area as further described below. Rock outcrops cover approximately 10 percent of the surface within the study area. This soil type is not identified as hydric by the USDA NRCS (2020c).

Exchequer Series

Exchequer rocky silt loam, 30 to 70 percent slopes, is limited to the north, northeast, and east portions of the study area. The Exchequer series consists of shallow, somewhat excessively drained

Figure 4 Soils Map



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Additional data provided by USDA NRCS SSURGO, 2020.

BRAFig 4 Soils

soils that formed in residuum weathered from hard andesitic breccia, schist, and metamorphosed volcanic rocks. These soils are on undulating to steep uplands. The soils have medium to rapid runoff and moderate permeability. Associated vegetation is typically annual grasses with small herbaceous plants, scattered blue oaks (*Quercus douglasii*) or dense shrubs. Dense shrubs are prevalent throughout the study area. This soil type is not identified as hydric by the USDA NRCS (2020c).

According to Geocon, Inc.'s Geotechnical Investigation (Geocon 2001), the project site contains four surficial soil types and one geologic formation. The four surficial soil types consist of undocumented fill, topsoil, colluvium, and alluvium. The geologic formation is comprised of Cretaceous Granitic Rock.

3.2 Vegetation Communities and Land Cover

Vegetation communities in the study area were mapped using aerial imagery during the field survey. In order of prevalence, the vegetation communities and land cover types documented in the study area include: coastal sage-chaparral transition, Diegan coastal sage scrub, disturbed Diegan coastal sage scrub, disturbed habitat, agriculture, developed, ornamental, natural flood channel/streambed, pampas grass (*Cortaderia selloana*) – Mexican fan palm (*Washingtonia robusta*), pampas grass patches and mulefat scrub (Table 1 and Figure 5). A list of plant species encountered during the survey is provided in Appendix A.

Table 1 Summary of Vegetation Communities

Vegetation Community/ Land Cover Type (Holland Code)	MHCP Habitat Group	Sensitive	Project Site (acres)	Study Area (acres)
Coastal Sage-Chaparral Transition (37G00)	Group C	Yes	5.04	15.85
Diegan Coastal Sage Scrub (32500)	Group C	Yes	5.82	8.10
Disturbed Diegan Coastal Sage Scrub (32500)	Group C	Yes	7.23	7.25
Disturbed Habitat (11300)	Group F	No	2.94	4.63
Agriculture (18000)	Group F	No	0.09	3.22
Developed (12000)	–/–	No	0.00	2.65
Ornamental	–/–	No	1.09	2.36
Natural Floodchannel/Streambed	Group A	Yes	0.44	0.44
Pampas Grass – Mexican Fan Palm	–/–	No	0.12	0.12
Pampas Grass Patches	–/–	No	0.10	0.11
Mulefat Scrub[1]	Group A	Yes	0.01	0.01
Total			**22.89**	**44.75**

[1]The MHCP recognizes "Riparian Scrub," a broad category that includes Mulefat Scrub.

–/– Semi-natural stands are not ranked and not considered sensitive (CDFW 2020a). "Developed" and "Ornamental" are not officially identified as defined vegetation communities in *A Manual of California Vegetation* (Sawyer et al. 2009) and are not considered sensitive.

Coastal Sage – Chaparral Transition (37G00)

This vegetation community is the most prevalent community within the study area (15.85 acres) and comprises a mix of coastal sage scrub and chaparral species. The shrub layer is dense and

dominated by chamise (*Adenostoma fasciculatum*), laurel sumac (*Malosma laurina*), woolly-leaved ceanothus (*Ceanothus*

tomentosus), black sage (*Salvia mellifera*) and California buckwheat (*Eriogonum fasciculatum*). Wart-stemmed ceanothus (*Ceanothus verrucosus*), an MHCP-covered and CRPR 2B.2 species, and California sagebrush (*Artemisia californica*) are present as subdominant species. The herbaceous layer is dominated by fascicled tarplant (*Deinandra fasciculata*) and ripgut brome (*Bromus diandrus*). Coastal sage scrub/chaparral mix is considered a sensitive community by the MHCP, falling under Habitat Group C. This vegetation community was further classified using Sawyer et al. (2009), which resulted in the designation of the following four alliances:

Chamise Chaparral

Chamise chaparral (*Adenostoma fasciculatum* Alliance) is concentrated in the central portion of the study area. Chamise is the dominant species.

Chamise – Black Sage Chaparral

Chamise – black sage chaparral (*Adenostoma fasciculatum – Salvia mellifera* Alliance) is also concentrated in the central portion of the study area. Dominant species include chamise, California buckwheat, black sage, and California sagebrush.

Hairy Leaf – Woolly Leaf Ceanothus Chaparral

Hairy leaf – woolly leaf ceanothus chaparral (*Ceanothus oliganthus, tomentosus* Alliance) is in the north, east, and west portions of the study area. Woolly-leaved ceanothus and chamise are the dominant species.

Wart-stemmed Ceanothus Chaparral

Wart-stemmed ceanothus chaparral (*Ceanothus verrucosus* Alliance) is also located in the north, east and west portions of the study area. Wart-stemmed ceanothus is the dominant species. The areas where the wart-stemmed ceanothus in the study area is located are outside of an FPA.

Diegan Coastal Sage Scrub (32500)

This vegetation community comprises 8.10 acres of the study area. The shrub layer is dense and dominated by California buckwheat, California sagebrush and laurel sumac, with black sage, coyote brush (*Baccharis pilularis*), deerweed (*Acmispon glaber*), chaparral mallow (*Malacothamnus fasciculatus*) and broom baccharis (*Baccharis sarothroides*) present as subdominant species. The herbaceous layer is dense and relatively diverse, consisting of fascicled tarplant, chaparral dodder (*Cuscuta californica*), chalk dudleya (*Dudleya pulverulenta*), cliff aster (*Malacothrix saxatalis*), chia (*Salvia columbariae*), dwarf plantain (*Plantago erecta*), common cryptantha (*Cryptantha intermedia*), and sapphire woollystar (*Eriastrum sapphirinum*). Several non-native species including tocalote (*Centaurea melitensis*), black mustard (*Brassica nigra*), slender wild oat (*Avena barbata*) and ripgut brome are also common throughout this community.

Diegan Coastal Sage Scrub is considered a sensitive community by the MHCP, falling under Habitat Group C. The Diegan Coastal Sage Scrub was further classified using Sawyer et al. (2009), which resulted in the designation of the following two alliances:

California Sagebrush-California Buckwheat Scrub

California sagebrush-California buckwheat scrub (*Artemisia californica-Eriogonum fasciculatum* Shrubland Alliance) is found throughout the study area. California sagebrush and California buckwheat are codominant.

California Buckwheat Scrub

California buckwheat scrub (*Eriogonum fasciculatum* Shrubland Alliance) is found in more disturbed areas of Diegan coastal sage scrub, where monotypic stands of California buckwheat are present.

Disturbed Diegan Coastal Sage Scrub (32500)

This vegetation community comprises 7.25 acres of the study area and is structurally similar to Diegan Coastal Sage Scrub but has been subjected to prior disturbance due to topographic alterations and placement of debris and storm drainpipe pieces. As a result, much of the disturbed Diegan coastal sage scrub is in recovery and contains a high proportion of bare ground and weedy species. Dominant shrub species include California buckwheat, California sagebrush, coyote brush and broom baccharis, and dominant herbaceous species include fascicled tarplant, fountain grass (*Pennisetum setaceum*), ripgut brome and slender wild oat.

Agriculture (18000)

This vegetation community is situated adjacent to the project site and comprises 3.22 acres in the northern portion of the study area. This land cover type is comprised of a citrus grove and contains very little native vegetation.

Developed (12000)

This land cover type comprises 2.65 acres in the study area and is directly associated with areas covered by preexisting developments (i.e., buildings and paved roads). It is not officially identified in the MHCP or Sawyer et al. (2009) as a defined vegetation community or land cover type.

Disturbed Habitat (11300)

This land cover type comprises 4.63 acres of the study area and generally lacks vegetation and is comprised of dirt roads, trails and other topographically disturbed areas such as the existing San Diego Gas and Electric easement in the southwest portion of the study area. Dirt roads and trails are located throughout the study area.

Ornamental

This land cover type comprises 2.36 acres of the study area and contains planted ornamental vegetation adjacent to developed areas. It is not officially identified in the MHCP or Sawyer et al. (2009) as a defined vegetation community or land cover type.

Natural Floodchannel/Streambed

This land cover type comprises 0.44 acre of the study area and is directly associated with the primary drainage and its tributary in the north, central and eastern portions of the study area. The northern, upstream portion of the primary drainage is comprised of dense pampas grass with a Mexican fan palm overstory, while the central and downstream portions comprise broad-leaved

cattail (*Typha latifolia*), bristly ox-tongue (*Helminthotheca echioides*), Italian thistle (*Carduus pycnocephalus*), slender wild oat, black mustard, tumbleweed (*Amaranthus albus*), rabbitsfoot grass (*Polypogon monspeliensis*), tall flatsedge (*Cyperus eragrostis*), and curly dock (*Rumex crispus*). The tributary is generally comprised of dense California sagebrush, California buckwheat and tocalote. Natural floodchannel/streambed is considered a sensitive community by the MHCP, falling under the Habitat Group A. The lateral extent of Natural floodchannel/streambed was also found to be equivalent to that of CDFW- and RWQCB- jurisdictional limits. The USACE would not regulate the natural flood channel/streambed due to the lack of a surface connection to nearby navigable waters of the U.S. in a typical year. Refer to Section 4.6 for further discussion.

Pampas Grass – Mexican Fan Palm

This vegetation community comprises 0.12 acre within the northern portion of the study area. Pampas grass and Mexican fan palm are codominant. It is not officially identified in the MHCP or Sawyer et al. (2009) as a defined vegetation community or land cover type. This community is generally located in an upland area immediately adjacent to the Natural Floodchannel/Streambed land cover type (refer to Figure 5).

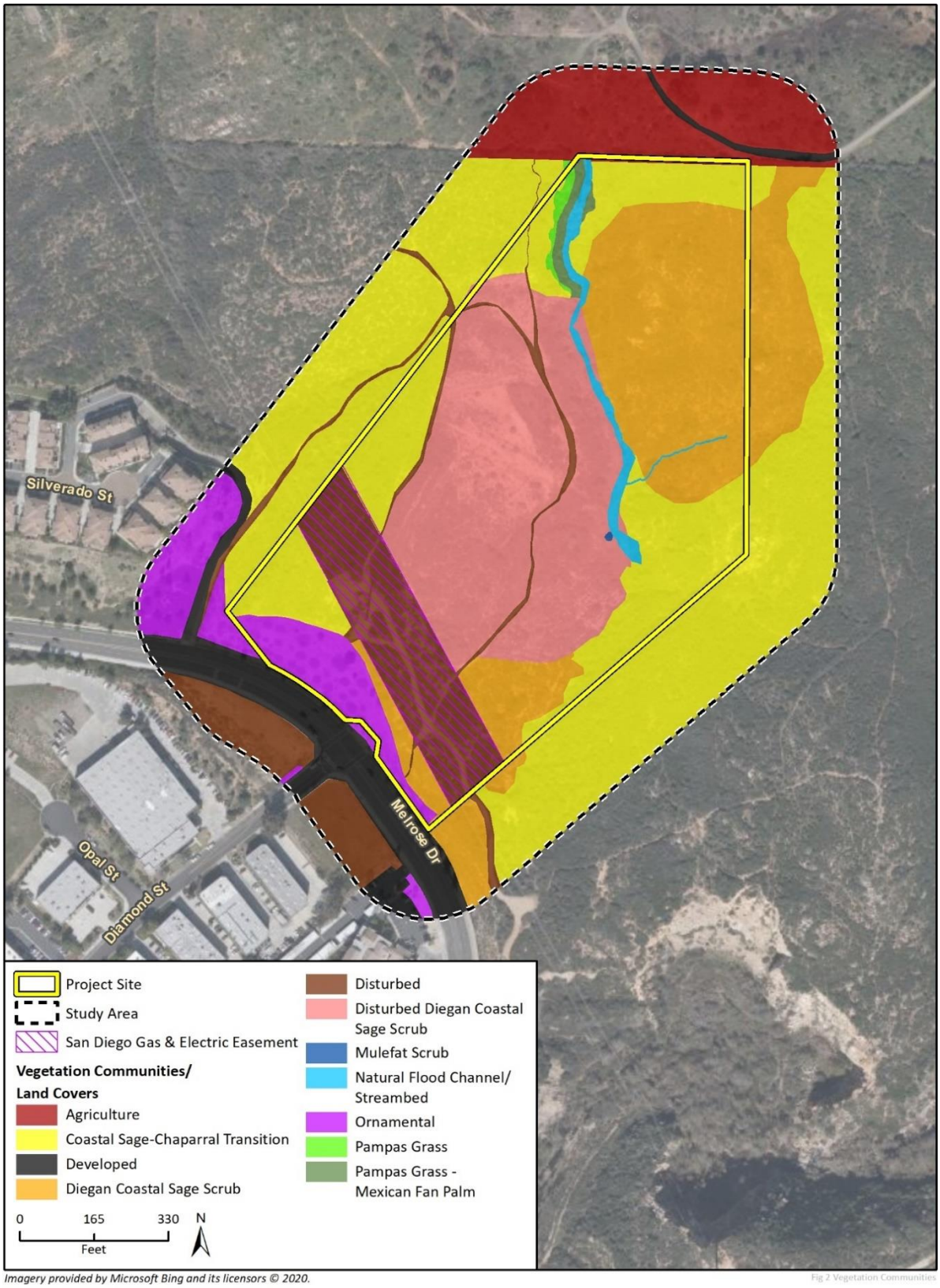
Pampas Grass (*Cortaderia jubata, selloana* Semi-Natural Alliance)

Approximately 0.11 acre of pampas grass patches are located in the north portion of the study area. Pampas grass in this portion of the study area is dense and is the dominant species. Though it is not officially identified in the MHCP, pampas grass patches are recognized as a semi-natural alliance in Sawyer et al. (2009).

Mulefat Scrub

A small patch (0.01 acre) of mulefat (*Baccharis salicifolia*) is located in the downstream portion of the drainage within the central portion of the study area. The MHCP recognizes the broader "Riparian Scrub" community and categorizes it as a Group A habitat. Mulefat scrub falls within the riparian scrub category, therefore the MHCP would consider mulefat scrub as sensitive. The community is adjacent to the Natural Floodchannel/Streambed land cover type in the central portion of the site and is within the CDFW jurisdictional area associated with the main drainage.

Figure 5 Vegetation Communities



3.3 General Wildlife

The study area provides suitable native habitat that can support native wildlife species common in the MHCP Plan Area. Mammal species expected to pass through the study area include mule deer (*Odocoileus hemionus*), coyote (*Canis latrans*), bobcat (*Lynx rufus*), and potentially mountain lion (*Puma concolor*). Avian activity was moderate during the site visit. Rincon biologists observed common avian species such as northern mockingbird (*Mimus polyglottos*), house finch (*Haemorhous mexicanus*), mourning dove (*Zenaida macroura*), and spotted towhee (*Pipilo maculatus*). The site is highly suitable for birds due to the presence of available habitat. There is also a high potential for migrating birds to utilize the site. No non-native wildlife species were observed in the study area. Refer to Appendix A for the full list of wildlife species observed.

3.4 General Vegetation

The study area contains multiple vegetation communities comprised of native and non-native plants. In the central portion of the study area, the disturbed Diegan coastal sage scrub community was dominated by California buckwheat, California sagebrush, coyote brush, broom baccharis, fascicled tarplant, and fountain grass. The outer edges of the study area were dominated by coastal sage and chaparral community species such as chamise, laurel sumac, woolly-leaved ceanothus, black sage, and California buckwheat. Refer to Appendix A for the full list of plant species observed.

4 Special-Status Biological Resources

The study area contains special-status biological resources, including sensitive vegetation communities, sensitive plant species, suitable habitat for sensitive wildlife species and nesting birds, and potentially jurisdictional drainages. This section discusses special-status biological resources observed within the study area and evaluates the potential for the study area to support other sensitive resources. Appendix C provides the complete list of all special-status resources with records in the CNDDB within five miles of the study area and CNPS within the nine USGS topographic quadrangle query for the study area.

4.1 Sensitive Vegetation Communities

The Coastal Sage-Chaparral Transition, Diegan Coastal Sage Scrub, Disturbed Diegan Coastal Sage Scrub, Natural Floodchannel/Streambed and Mulefat Scrub mapped in the study area fall within the MHCP's "Coastal Sage Scrub" and "Riparian and Wetland" habitat groups and types (AMEC et al. 2003a, 2003b), considered Group C and Group A habitats, respectively, per the MHCP (SANDAG 2003). Within the study area, the Coastal Sage-Chaparral Transition community is in the north, east, and west portions of the site and connects to adjacent open space to the east and west. The Diegan Coastal Sage Scrub and Disturbed Diegan Coastal Sage Scrub communities are in the central, northeast, and south portions of the site and connect to adjacent open space to the northwest, east, and southeast. The Natural Floodchannel/Streambed and Mulefat Scrub communities are isolated and in the northern, central, and eastern portions of the site (refer to Figure 5).

One (1) of the seven (7) sensitive vegetation communities that have been recorded in the vicinity of the study area, southern willow scrub, was identified by Dudek in the upstream portion of the primary drainage in the study area near the north property boundary. This vegetation community is no longer present in the study area, presumably due to drought conditions and invasion of Mexican fan palms and pampas grass since Dudek's 2002 surveys.

4.2 Special-Status Species

This section discusses and evaluates the potential for the study area to support special-status species. Assessments for the potential occurrence of federal and state listed species are based upon known ranges, habitat preferences for the species, species occurrence records from the CNDDB and CNPS, species occurrence records from other sites in the vicinity of the study area, previous reports for the project site, and the results of the survey of the study area.

Based on queries of the CNDDB and CNPS, there are 41 special-status plant species and 30 special-status wildlife species documented within a 5-mile radius of the study area and within the 9 quadrangle search. Suitable habitat for several special-status species is present in the study area.

4.3 Special-Status Plants

The database queries identified 41 special-status plants within the *Rancho Santa Fe, CA* USGS topographic quadrangle and eight surrounding quadrangles. The only special-status plant species observed in the study area during the survey was wart-stemmed ceanothus. The survey, however,

was not conducted during the optimal blooming season for some of the species with some level of potential to occur. Many of the species with recorded occurrences in the project vicinity are associated with habitats not found in the study area, including species associated with vernal pools, which are not present on site. The study area has a history of disturbance and contains fill from prior adjacent land uses and a San Diego Gas and Electric easement, which has altered the vegetation communities and soils, limiting the potential for the species that have associated habitats on site. Aside from wart-stemmed ceanothus, which has been documented as present in the study area, five (5) species have low potential to occur on site: San Diego ambrosia (*Ambrosia pumila*), summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*), beach goldenaster (*Heterotheca sessiliflora* ssp. *sessiliflora*), sea dahlia (*Leptosyne maritima*), and Munz's sage (*Salvia munzii*).

Wart-stemmed Ceanothus

The coastal sage scrub and chaparral vegetation communities present within the study area provide high quality habitat for wart-stemmed ceanothus (a CRPR 2B.2 and MHCP covered species). Large numbers of wart-stemmed ceanothus were observed throughout the coastal sage-chaparral transition vegetation community mapped in the north, east, southeast, west, and southwest portions of the study area (refer to Figure 5). According to the Biological Resources Report and Impact Assessment for the Diamond Street Extension Project (Dudek & Associates, Inc. 2002), approximately 440 individuals of this species are estimated to occur on site. Rincon estimates that approximately 600 wart-stemmed ceanothus individuals are currently present on the project site, as this species is widespread along the margins of the study area.

San Diego Ambrosia

The federally listed as endangered San Diego ambrosia has a low potential to occur in the study area. Marginal habitat for the species is present and there are records from within the nine (9) quadrangle search associated with the study area. The species occurs primarily on upper terraces of rivers and drainages and has been found in association with vernal pools. Within these areas, the San Diego ambrosia is found in open grassland of native and non-native plant species, and openings in Coastal Sage Scrub, and primarily on sandy loam or clay soils. The species may also be found in ruderal habitat types (disturbed communities containing a mixture of native and nonnative grasses and forbs), such as fire fuel breaks and edges of dirt roadways. Non-native grassland and ruderal habitat types provide adequate habitat San Diego ambrosia; however, non-native plants can out-compete the species for resources in some situations (USFWS 2010).

This MHCP-covered species has a low potential to occur in the Disturbed Habitat, Diegan Coastal Sage Scrub, and Disturbed Diegan Coastal Sage Scrub portions of the study area.

Summer Holly

Summer holly often occurs in mixed chaparral and cismontane woodland, sometimes in post-burn conditions. This MHCP-covered species has been determined to have a low potential to occur in the study area due to marginally suitable habitat (Coastal Sage-Chaparral Transition), as well as being present throughout San Diego County. It has a CNPS CRPR that indicates it is rare, threatened, or endangered in California and elsewhere, with 20 to 80 percent occurrences threatened with a moderate degree and immediacy of threat (CRPR 1B.2).

Beach Goldenaster

Beach goldenstar occurs on sandy sites in coastal dunes, coastal scrub, and coastal chaparral. This species has been determined to have a low potential to occur in the study area due to marginally suitable habitat (Coastal Sage-Chaparral Transition, Diegan Coastal Sage Scrub and Disturbed Diegan Coastal Sage Scrub). It has a CNPS CRPR that indicates it is rare, threatened, or endangered in California and elsewhere, with over 80 percent of occurrences threatened with a high degree and immediacy of threat (CRPR 1B.1).

Sea Dahlia

Sea dahlia occurs on a variety of soil types, including sandstone, in coastal scrub and coastal bluff scrub. This species has been determined to have a low potential to occur in the study area due to marginally suitable habitat (Diegan Coastal Sage Scrub and Disturbed Diegan Coastal Sage Scrub). It has a CNPS CRPR that indicates it is rare, threatened, or endangered in California but more common elsewhere, with 20-80 percent occurrences threatened with a moderate degree and immediacy of threat (CRPR 2B.2).

Munz's Sage

Munz's sage occurs in rocky soil on rolling hills and slopes in coastal scrub and chaparral. This species has been determined to have a low potential to occur in the study area due to marginally suitable habitat (Coastal Sage-Chaparral Transition, Diegan Coastal Sage Scrub, and Disturbed Diegan Coastal Sage Scrub). It has a CNPS CRPR that indicates it is rare, threatened, or endangered in California but more common elsewhere, with 20 to 80 percent occurrences threatened with a moderate degree and immediacy of threat (CRPR 2B.2).

4.4 Special-Status Wildlife

The review of biological databases resulted in the identification of 30 special-status wildlife species within five (5) miles of the study area. Of these 30, 13 species were determined to have at least a moderate potential to occur due to the presence of suitable habitat in the study area.

California Glossy Snake

California glossy snake (*Arizona elegans occidentalis*) is patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California. This species is a habitat generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils. California glossy snake, an SSC, has a moderate potential of occurring in the study area.

Orange-throated Whiptail

Orange-throated whiptail (*Aspidoscelis hyperythra*), a WL and MHCP covered species, requires intact coastal sage scrub, with California buckwheat as the dominant species, and sage (*Salvia* sp.), yucca (*Yucca* sp.), cactus (*Opuntia* sp.), and sagebrush (*Artemisia* sp.) present. This species has a high potential to occur in the study area due to the high suitability of Diegan Coastal Sage Scrub and Disturbed Coastal Sage Scrub on site, in which California buckwheat and California sagebrush are prevalent.

Coastal Whiptail

Coastal whiptail (*Aspidoscelis tigris stejnegeri*), an SSC, is found in deserts and semi-arid areas with sparse vegetation and open areas, and woodland and riparian areas. This species can occur in firm, sandy, or rocky soils. Coastal whiptail has a high potential to occur in the more open scrub areas on site.

Red-diamond Rattlesnake

Red-diamond rattlesnake (*Crotalus ruber*), an SSC, occurs in rocky areas and dense vegetation in chaparral, woodland, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains. This species needs rodent burrows, cracks in rocks, or surface cover objects. Red-diamond rattlesnake has a moderate potential to occur in the dense Coastal Sage-Chaparral Transition areas on site.

Coast Horned Lizard

Coast horned lizard (*Phrynosoma blainvillii*, SSC) frequents a wide variety of habitats, but is most common in lowlands along sandy washes with scattered low bushes. This species requires open areas for sunning, bushes for cover, patches of loose soil for burial, and an abundant supply of ants and other insects. Coast horned lizard has a moderate potential to occur in scrub and chaparral areas in the study area.

Coast Patch-nosed Snake

Coast patch-nosed snake (*Salvadora hexalepis virgultea*, SSC) occurs in brushy or shrubby vegetation in coastal Southern California. This species requires small mammal burrows for refuge and overwintering sites. Coast patch-nosed snake has a moderate potential to occur in the study area.

Southern California Rufous-crowned Sparrow

Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), a WL and MHCP covered species, is found in open oak woodlands and dry uplands with grassy vegetation and bushes. This species is often found near rocky outcroppings, and occurs in coastal scrublands and chaparral areas. The Southern California rufous-crowned sparrow has a moderate potential to occur in the Coastal Sage-Chaparral Transition, Diegan Coastal Sage Scrub, and Disturbed Diegan Coastal Sage Scrub habitats in the study area.

Bell's Sage Sparrow

Bell's sage sparrow (*Artemisiospiza belli belli*), a WL and MHCP covered species, nests in chaparral dominated by fairly dense stands of chamise. This species is found in coastal sage scrub in the south portion of its' range. The Bell's sage sparrow nest is located on the ground beneath a shrub or in a shrub six (6)-18 inches above the ground. Its territories are about 50 yards apart. Bell's sage sparrow has a moderate potential to occur in the Coastal Sage-Chaparral Transition, Diegan Coastal Sage Scrub, and Disturbed Diegan Coastal Sage Scrub habitats in the study area.

Coastal California Gnatcatcher

Coastal California gnatcatcher, a Federally Threatened, SSC and MHCP covered species, is an obligate, permanent resident of coastal sage scrub below 2500 ft in Southern California. This species occurs in low coastal sage scrub in arid washes and on mesas and slopes. According to the USFWS

Critical Habitat Portal (USFWS 2020a), the study area is located within critical habitat for CAGN. In addition, the most recent CNDDB observation within a 5-mile radius of the study area is from 2017. The study area supports suitable habitat for CAGN, and additional habitat is adjacent to the study area to the northwest, east and southeast. According to Dudek (2002), the total acreage of critical habitat for CAGN is separated into 13 Critical Habitat Units; the study area is in Critical Habitat Unit 3 (North San Diego MHCP), which is approximately 29,320 acres in size and is particularly critical to CAGN conservation in this portion of the County.

Focused surveys for CAGN were conducted by Dudek for the Diamond Street extension project in 2002. No CAGNs were detected on site during the surveys. However, one pair of CAGNs was incidentally observed off site, adjacent to and north of the northerly terminus of Diamond Street. Neither individual was banded. Dudek determined that the observed pair represented one of the two adjacent CAGN pairs previously identified for take authorization per the Biological Opinion for the Brookfield Homes/University Commons project; USFWS Log No. 1-6-00-F-2285; USACE File No. 200100025-SKB. Dudek additionally stated that CAGN has a moderate potential to occur on site, and that CAGN may use the site periodically for dispersal and foraging purposes.

The 2017 CAGN observation occurred approximately 4 miles away from the study area in the vicinity of South Lake. According to the CNDDB, this detection occurred in Disturbed Diegan Coastal Sage Scrub, a habitat type found on the project site. According to the USFWS Federal Register 50 CFR Part 17 Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the Coastal California Gnatcatcher (Polioptila californica californica); Final Rule (USFWS 2007), the listed critical habitat primary constituent elements (PCEs) include:

1. Space for individual and population growth and for normal behavior;
2. Food, water, air, light, minerals, or other nutritional or physiological requirements;
3. Cover or shelter;
4. Sites for breeding, reproduction, or rearing (or development) of offspring; and
5. Habitats that are protected from disturbance or are representative of the historic, geographical, and ecological distributions of a species.

The project site contains all 5 of these necessary habitat features. All shrub species within coastal sage scrub are used by CAGN (USFWS 2017). CAGN are typically found in stands of coastal sage scrub with moderate shrub canopy cover, generally greater than 50 percent, which is the case on the project site. CAGN also use non-sage scrub habitat such as chaparral, grassland, and riparian habitats where they occur near sage scrub. Coastal Sage – Chaparral Transition and riparian habitats are present on the project site. Additionally, the project site contains both shallow slopes (less than 20 percent) and steeper slopes (greater than 20 percent). CAGN nests are typically more successful on shallow slopes than on steeper slopes (USFWS 2017). Sage scrub and chaparral habitats provide essential foraging habitat supporting insects for CAGN nestlings and adults, cover to escape predation during foraging and nesting, shelter from adverse environmental conditions, and space for population growth.

Considering the short distance between Dudek's (2002) CAGN observation and the project site, the recent CNDDB observation within 5 miles of the study area, and the high suitability of Diegan Coastal Sage Scrub and Disturbed Diegan Coastal Sage Scrub on site, Rincon has determined that the CAGN has a high potential to occur in the Diegan Coastal Sage Scrub and Disturbed Diegan Coastal Sage Scrub in the study area.

Dulzura Pocket Mouse

The Dulzura pocket mouse (*Chaetodipus californicus femoralis*), an SSC, occurs in a variety of habitats including coastal scrub, chaparral, and grassland in the county. This species is specifically attracted to grass-chaparral edges. The Dulzura pocket mouse has a moderate potential to occur in the Coastal Sage-Chaparral Transition, Diegan Coastal Sage Scrub, and Disturbed Coastal Sage Scrub areas in the study area.

Northwestern San Diego Pocket Mouse

The northwestern San Diego pocket mouse (*Chaetodipus fallax*), an SSC and MHCP covered species, is found in chaparral, grasslands, scrub forests, and deserts. Major habitat requirements include the presence of low growing vegetation or rocky outcroppings, as well as sandy soil in which this species dig burrows. The northwestern San Diego pocket mouse has a moderate potential to occur in the Coastal Sage-Chaparral Transition, Diegan Coastal Sage Scrub and Disturbed Diegan Coastal Sage Scrub habitats in the study area.

San Diego Black-tailed Jackrabbit

The San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), an SSC and MHCP covered species, occurs in intermediate canopy stages of shrub habitats and open shrub/herbaceous and tree/herbaceous edges in coastal sage scrub habitats in Southern California. This species has a moderate potential to occur in the Diegan Coastal Sage Scrub and Disturbed Diegan Coastal Sage Scrub habitats in the study area.

San Diego Desert Woodrat

San Diego desert woodrat (*Neotoma lepida intermedia*), an SSC species, occurs in coastal scrub of Southern California from San Diego County to San Luis Obispo County. This species prefers moderate to dense canopies. The San Diego desert woodrat is particularly abundant in rock outcrops, rocky cliffs, and slopes. This species has a moderate potential to occur in the Diegan Coastal Sage Scrub and Disturbed Diegan Coastal Scrub habitats in the study area.

4.5 Nesting Birds

The Mexican fan palm trees and numerous shrubs in the study area provide suitable nesting habitat for nesting birds and raptors. Species such as red-tailed hawk (*Buteo jamaicensis*) and white-tailed kite (*Elanus leucurus*) may nest in the palm trees during the nesting season (generally February 1 through August 31). In addition, the sage scrub and chaparral shrubs in the study area may provide nesting habitat for a variety of bird species. Nesting birds are protected pursuant to the CFGC and MBTA.

4.6 Jurisdictional Waters and Wetlands

The study area is within the Batiquitos Lagoon Watershed (Hydrologic Unit Code 180701090451), which is in the San Marcos Hydrologic Area and therefore in the larger Carlsbad Hydrologic Unit. The results below are summarized from a recent Jurisdictional Delineation Report (Rincon 2020).

Two drainages, a primary drainage and a tributary, were observed on site. The primary drainage is heavily invaded by non-native vegetation, primarily pampas grass and Italian thistle. This drainage

consists indicators of regular flow, bed, and banks. This drainage originates at the north property boundary of the project site, presumably from the adjacent citrus grove to the north, and traverses south into the central portion of the project site where it dissipates to sheet flow. According to the USFWS NWI, this main drainage is mapped as a freshwater forested/shrub wetland (USFWS 2020b). Our field observations, however, led to the conclusion that this drainage does not contain wetlands due to the fact that the drainage only met one of the three parameters needed to determine presence of a wetland despite the presence of broad-leaved cattail, a wetland obligate species, at one of the sample points. An additional, smaller drainage joins the main drainage from the east. The unnamed drainages were observed to have a clearly defined channel, with bed and banks.

The study area is in the San Marcos Creek Watershed which ultimately flows to Batiquitos Lagoon; however, the main drainage does not have a surface connection to San Marcos Creek during a typical year. Because the drainages do not have a clear surface connection to nearby navigable waters of the U.S., it is anticipated they would not be regulated as jurisdictional "waters of the U.S." by the USACE under the 2020 Navigable Water Protection Rule. An Approved Jurisdictional Determination (AJD) form will be processed with the USACE. CDFW and the RWQCB are likely to assert jurisdiction over the drainages in the study area. Rincon preliminarily determined that 1,261 linear feet and 0.45 acre of CDFW jurisdiction and 0.21 acre of RWQCB jurisdiction are present in the study area. A jurisdictional waters and wetlands delineation report was completed by Rincon in December 2020 (Rincon 2020).

4.7 Wildlife Movement

Wildlife movement corridors, or habitat linkages, are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as providing a linkage between foraging and denning areas, or they may be regional in nature. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Others may be important as dispersal corridors for young animals. A group of habitat linkages in an area can form a wildlife corridor network.

The study area is surrounded by conserved lands managed by the Center for Natural Lands Management, a citrus grove designated in the county as permanent open space to the north, and mixed residential and industrial development to the west and southwest, respectfully. Despite the fact that a Final Tract Map designating development of the entire project site was recorded in the early 1990s, the City looked to identify a habitat corridor in the approximate northeast portion of the project site in conjunction with the surrounding conserved land in its Natural Community Conservation Plan (City of San Marcos 2001). No physical barriers to connectivity exist within the study area and migrating wildlife would be expected to pass through it from the surrounding conserved land. The site, therefore, supports wildlife movement.

Common bird species are likely to use the vegetation on the project site for nesting, and mammal, amphibian, and reptile species are likely to raise their young in burrows on the project site. The project site is similar to the surrounding areas, and there are no unique features on the project site that would make it particularly important as a wildlife nursery from a regional perspective.

5 Project Impact Analysis

The CEQA requires that impacts of a proposed project be analyzed for significance. Impacts of the project on biological resources are described below. Where warranted, recommended mitigation measures are provided. The proposed project would directly impact special-status vegetation communities and could potentially directly impact special-status plant and wildlife species.

5.1 Special-Status Species

The proposed project would have a significant effect on biological resources if it would:

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

Impact-1: Special-status Plant Species

One special-status plant species, wart-stemmed ceanothus, is present throughout the coastal sage-chaparral transition vegetation community in the study area. Rincon estimates approximately 600 individuals are present on the project site. Approximately 3.35 acres out of the total 5.04 acres (or 66%) of coastal sage-chaparral transition on the project site would be impacted by project implementation. Approximately 1.69 acres of coastal sage-chaparral transition that contains wart-stemmed ceanothus individuals would be avoided in Lot B.

The MHCP adequately conserves this species regionally by conserving 71% of potential habitat, 75% of point locations (130 of 173 locations are in an FPA), and 78% of major populations. Most conserved populations are in relatively large and connected habitat blocks that contribute to species viability. The majority of points (75%) falls within an FPA and will be conserved at 100% in hardline areas and the FPA percentage (or mitigation ratio) in softline areas in the FPA. The project site is outside of an FPA, therefore, conservation of wart-stemmed ceanothus on the project site is not required (AMEC 2003b). The removal of wart-stemmed ceanothus on the project site would therefore not be significant.

Impact-2: Coastal California Gnatcatcher

A pair of coastal California gnatcatchers were identified adjacent to the project site by Dudek in 2002. The project could directly impact CAGN through destruction of occupied nests during vegetation removal on the project site if vegetation clearance occurs during the CAGN nesting season. Indirect impacts to CAGN due to construction noise[1], and dust are also possible, which could cause nest failures due to parental abandonment. Impacts to CAGN are considered significant without mitigation.

"Take" of the species, as defined in the ESA as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or to attempt to engage in any such conduct" (16 United States Code 1542(b)), is not expected from the implementation of the proposed project since vegetation clearance is expected to occur outside of the nesting season and the applicable mitigation measures

[1] The USFWS typically considers noise in excess of 60 dBA Leq. to constitute a risk of impacting nesting birds.

below will be implemented. Recent USFWS (2018a) guidance on when to seek an incidental take permit (ITP) was issued that provided a summary of the legal guidance on the definitions of "harm" and "harass." It also provides the following questions that should be asked before a determination is made that an action involving habitat modification is likely to result in take:

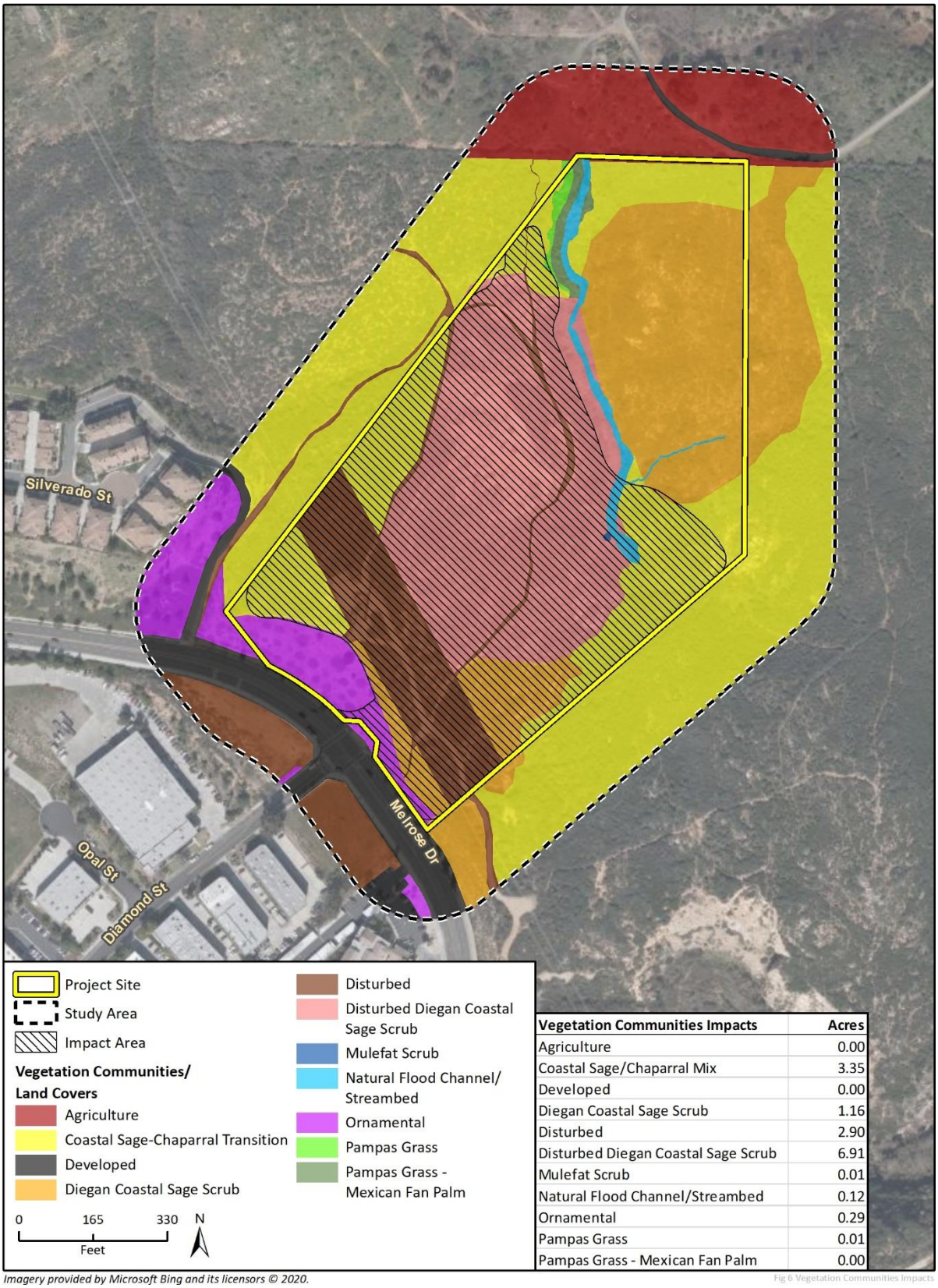
6. Is the modification of habitat significant?
7. If so, does that modification also significantly impair an essential behavior pattern of a listed species?
8. And, is the significant modification of the habitat, with a significant impairment of an essential behavior pattern, likely to result in the actual killing or injury of wildlife?

The proposed project would directly impact 3.35 acres of Coastal Sage-Chaparral Transition, 1.16 acres of Diegan Coastal Sage Scrub, and 6.91 acres of Disturbed Diegan Coastal Sage Scrub (Figure 6), habitat types that are used by CAGN for most of its life history. The proposed development area is composed mainly of disturbed coastal sage scrub vegetation and a small amount of CAGN preferred habitat (*Artemisia californica-Eriogonum fasciculatum* shrubland alliance). In addition, as detailed under Impact-5, the project would be required to preserve Coastal Sage-Chaparral Transition and Diegan Coastal Sage Scrub at a ratio of 1:1 through either on-site preservation, off-site acquisition, in lieu fees, a purchase of credits from an approved mitigation bank, or a combination thereof, compliant with the MHCP which would contribute to the regional availability of CAGN habitat.

CAGN that is present both on-site and in adjacent areas would also be potentially affected by indirect impacts associated with the project, such as dust, noise, human presence, nighttime lighting, increase in predators, and spread of non-native species into occupied habitat. These indirect impacts could result in nest failures or individual mortality of CAGN.

The implementation of project design features and MM-1 through MM-5 would reduce potential impacts to CAGN to less than significant by requiring an updated protocol CAGN survey, the implementation of CAGN avoidance measures prior to and during construction, implementation of a Workers Environmental Awareness Program (WEAP) to educate construction workers, the delineation of work areas to avoid additional impacts, and a Biological Monitor for activities in and around sensitive habitat areas. Implementation of MM-2 would reduce impacts to nesting CAGN (and nesting birds in general) by surveying to identify nests in the open space areas surrounding the project site. As a project design feature, all vegetation clearing and earthwork would be initiated between September 1 through February 14, outside of the breeding season for CAGN, which would avoid direct impacts to occupied nests. If vegetation clearing or earthwork would start outside of those dates, then surveys would be conducted prior to vegetation clearing. If nests are found, they would be avoided by establishing a 500-foot buffer around the nest as a mitigation measure to allow vegetation clearance or earthwork to continue. MM-5 requires CAGN avoidance measures be implemented to avoid impacts from construction and noise on CAGN. MM-2 requires a nesting bird survey be conducted during the breeding season of the species to determine if there are active CAGN nests in the open space adjacent to the project site and actions to limit any indirect impacts to the species. MM-3 requires a WEAP be implemented that would educate project construction workers on the sensitive species that could occur, as well as measures to reduce indirect impacts to the environment (e.g., picking up trash to not subsidize potential predators of CAGN). As an additional project design feature to address potential indirect impacts, the constructed slopes would be vegetated with appropriate native plant species which would minimize spread of non-native species from the development area into occupied habitat. MM-4 requires that the work limits

Figure 6 Impacted Vegetation Communities



Vegetation Communities Impacts	Acres
Agriculture	0.00
Coastal Sage/Chaparral Mix	3.35
Developed	0.00
Diegan Coastal Sage Scrub	1.16
Disturbed	2.90
Disturbed Diegan Coastal Sage Scrub	6.91
Mulefat Scrub	0.01
Natural Flood Channel/Streambed	0.12
Ornamental	0.29
Pampas Grass	0.01
Pampas Grass - Mexican Fan Palm	0.00

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Fig 6 Vegetation Communities Impacts

be delineated, which would ensure that project impacts to potential habitat for the species (3.35 acres of Coastal Sage-Chaparral Transition, 1.16 acres of Diegan Coastal Sage Scrub, and 6.91 acres of Disturbed Diegan Coastal Sage Scrub) beyond the acreages discussed herein are less than significant, leaving as much habitat as possible in the adjacent open space. MM-5 would require a Biological Monitor be present during initial clearing, grading, and construction in sensitive habitat areas, and construction would be temporarily halted to allow wildlife to move out of the work area. MM-6 requires a total of 3.35 acres of Coastal Sage-Chaparral Transition and 8.07 acres of Diegan Coastal Sage Scrub be preserved at a 1:1 ratio. This can be accomplished through either on-site preservation, off-site acquisition, in-lieu fees, a purchase of credits from an approved mitigation bank, or a combination thereof as approved by the Planning Manager.

Based on the analysis above, and the project design and mitigation proposed, impacts to CAGN would be reduced to less than significant.

Impact-3: Other Special-status Wildlife Species

California glossy snake, orange-throated whiptail, coastal whiptail, red-diamond rattlesnake, coast horned lizard, coast patch-nosed snake, Southern California rufous-crowned sparrow, Bell's sage sparrow, Dulzura pocket mouse, northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit, and San Diego desert woodrat all have either a moderate or high potential to occur on the project site, primarily within the Coastal Sage-Chaparral Transition, Diegan Coastal Sage Scrub, and Disturbed Diegan Coastal Sage Scrub. Southern California rufous-crowned sparrow, Bell's sage sparrow, and San Diego black-tailed jackrabbit are highly mobile and would likely escape direct impacts from vegetation removal and grading activities associated with the project by moving into the undisturbed open space to the north, northwest, east, and southeast. Some mortality to the species could occur, but project implementation would not impact a large enough number of individuals to cause a substantial adverse effect to the species, especially given the very small number of individuals likely to be impacted. MM-3 requires a WEAP be implemented for the project, which would include a discussion of these special-status wildlife species which have potential to occur on the project site and would instruct the contractor to avoid these species. MM-5 requires a Biological Monitor to conduct daily pre-construction surveys and be present during initial clearing, grading, and construction in sensitive habitat areas, and construction would be temporarily halted to allow wildlife to move out of the work area. With the implementation of these mitigation measures, impacts to other special-status wildlife species would be reduced to less than significant.

Impact-4: Nesting Birds and Raptors

The project could adversely affect raptors and other nesting birds if construction occurs while they are present on or adjacent to the project site through direct mortality. The loss of a nest due to construction activities is prohibited by law and mitigation measures are proposed to ensure compliance.

MM-1 through MM-5 would be implemented by the project to reduce impacts to special-status wildlife species. MM-2 requires a nesting bird survey be conducted to determine the presence of nesting birds and the establishment of the appropriate buffer for any nests that are found to keep construction activities from causing nest failure. MM-3 requires a WEAP be implemented for the project, and a part of that WEAP would be the discussion of nesting birds and "no work" buffers required by MM-2 that would be established for any active nests that are in or near the project site. MM-5 would require a Biological Monitor be present during initial clearing, grading, and construction in sensitive habitat areas to avoid impacts to nesting birds and raptors. With the

implementation of these mitigation measures, the project would avoid violations of the MBTA and CFGC.

5.2 Riparian Habitat or Sensitive Natural Communities

The proposed project would have a significant effect on biological resources if it would:

b) Have a substantial adverse impact 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 Wildlife or US Fish and Wildlife Service.

Impact-5: Riparian Habitat and Other Sensitive Natural Communities

Project implementation would impact 0.12 acre of Natural Floodchannel/Streambed and 0.01 acre of Mulefat Scrub, both of which are considered Habitat Group A. Wetland/Riparian by the MHCP. The project would also result in the direct removal of 3.35 acres of Coastal Sage-Chaparral Transition, 1.16 acres of Diegan Coastal Sage Scrub, and 6.91 acres of Disturbed Diegan Coastal Sage Scrub that falls under the MHCP's Habitat Group C definition of Coastal Sage/Chaparral Mix and Coastal Sage Scrub, which are considered sensitive habitats. Impacts to vegetation communities are shown on Figure 6 and summarized in Table 2.

Table 2 Impacts to Vegetation Communities and Land Cover

Habitat Group	Vegetation Community/Land Cover Type (Holland Code)	Acres Impacted	Sensitive
A	Natural Floodchannel/Streambed	0.12	Yes
A	Mulefat Scrub	0.01	Yes
C	Coastal Sage-Chaparral Transition (37G00)	3.35	Yes
C	Diegan Coastal Sage Scrub (32500)	1.16	Yes
C	Disturbed Diegan Coastal Sage Scrub (32500)	6.91	Yes
F	Disturbed Habitats	2.90	No
N/A	Ornamental	0.29	No
N/A	Pampas Grass	0.01	No
Total		**14.75**	

MM-4 requires that the work limits be delineated, which would ensure that project impacts are limited to the smallest extent possible, leaving as much vegetation as possible in the adjacent open space. MM-5 would require a Biological Monitor be present during initial clearing, grading, and construction in sensitive habitat areas. MM-6 requires a total of 0.12 acre of Natural Floodchannel/Streambed, 0.01 acre of Mulefat Scrub, 3.35 acres of Coastal Sage-Chaparral Transition, and 8.07 acres of Diegan Coastal Sage Scrub be preserved at a 1:1 ratio. With the implementation of these mitigation measures, impacts to riparian habitat and other sensitive vegetation communities would be reduced to less than significant.

5.3 Wetlands

The proposed project would have a significant effect on biological resources if it would:

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

Despite the presence of broad-leaved cattail, a wetland obligate species, at one of the sample points, no definable wetlands were identified within the study area; therefore, implementation of the proposed project would not have a substantial adverse effect on State or federally protected wetlands.

As shown on Figure 7, project implementation would impact the downstream portion of the primary drainage and its tributary. Approximately 228 linear feet and 0.12 acre of CDFW jurisdiction and 0.06 acre of RWQCB jurisdiction would be affected. Impacts to Natural Floodchannel/Streambed, Mulefat Scrub, Coastal Sage/Chaparral Transition, Diegan Coastal Sage Scrub, Disturbed Diegan Coastal Sage Scrub, and CDFW and RWQCB jurisdiction would be considered significant without mitigation.

MM-7 requires impacts to 0.12 acre of CDFW jurisdiction and 0.06 acre of RWQCB jurisdiction be mitigated at a 2:1 ratio. This can be accomplished through either on-site preservation and restoration, off-site acquisition, in-lieu fees, a purchase of credits from an approved mitigation bank, or a combination thereof as approved by the Planning Manager, CDFW, and RWQCB.

5.4 Wildlife Movement

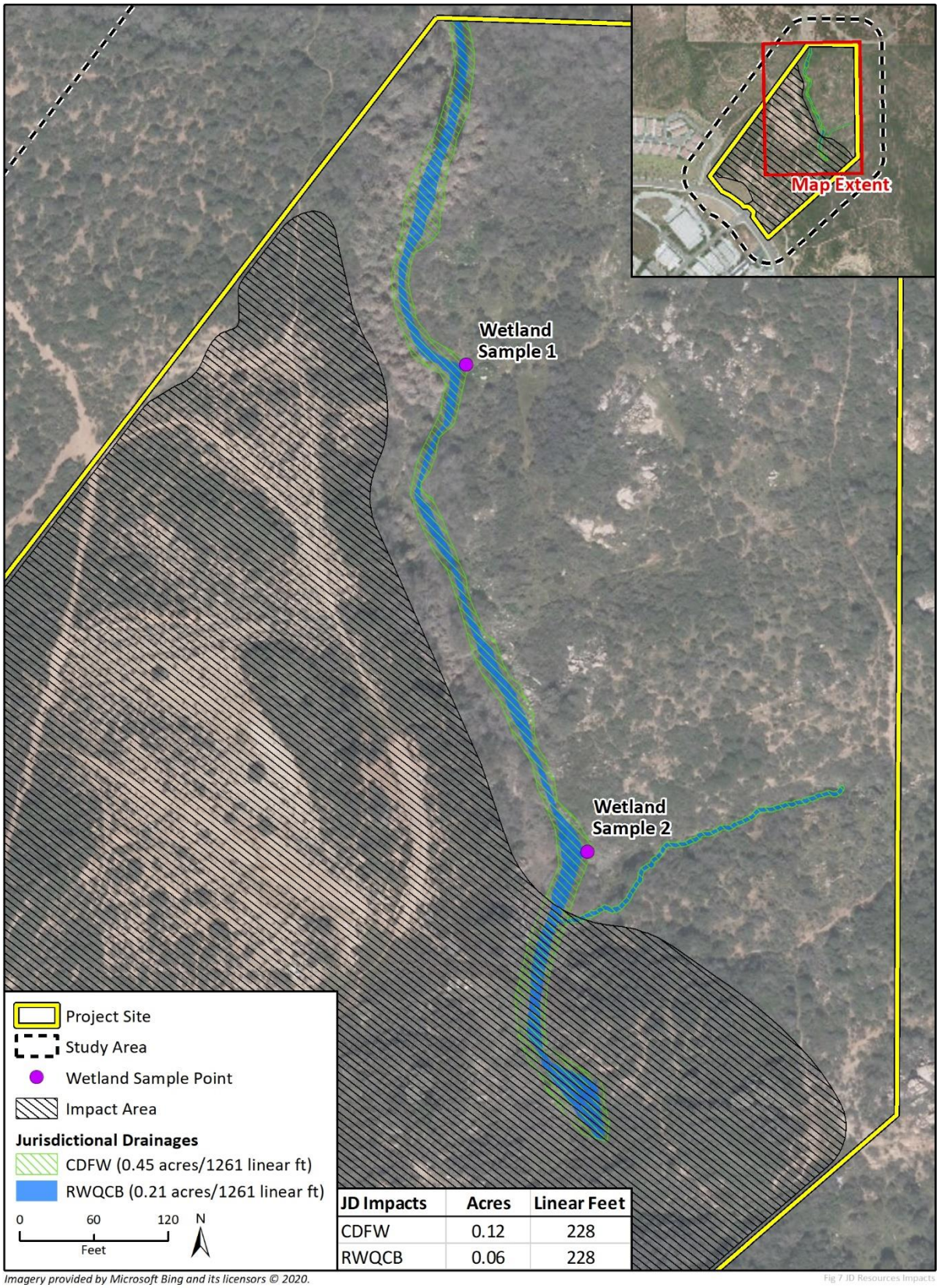
The proposed project would have a significant effect on biological resources if it would:

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

The City looked to identify a habitat corridor in the approximate northeast portion of the project site in conjunction with the surrounding conserved land in its Natural Community Conservation Plan (City of San Marcos 2001). No physical barriers to connectivity exist within the study area and migrant wildlife would be expected to pass through it from the surrounding conserved land. Therefore, the site supports wildlife movement. As the proposed project is currently designed, the northeastern portion of the study area would be conserved as open space, allowing this wildlife corridor to remain. Project implementation would not have a substantial adverse effect on wildlife movement.

Common bird species are likely to use the vegetation on the project site for nesting, and mammal, amphibian, and reptile species are likely to raise their young in burrows on the project site. The project site is similar to the surrounding areas, and there are no unique features on the project site that would make it particularly important as a wildlife nursery from a regional perspective. Project impacts on any wildlife nursery sites would therefore be less than significant.

Figure 7 Jurisdictional Resources



5.5 Local Policies and Ordinances

The proposed project would have a significant effect on biological resources if it would:

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

The Conservation and Open Space Element of the City's General Plan includes policies related to the protection of biological resources. The applicable policies, as well as the project's consistency with these policies, are presented below:

Policy COS-1.1: Support the protection of biological resources through the establishment, restoration, and conservation of high-quality habitat areas.

With the exception of on-site Coastal Sage-Chaparral Transition and Diegan Coastal Sage Scrub, a large portion of the project site would not be characterized as a high-quality habitat area. Mitigation for impacts to Natural Floodchannel/Streambed, Mulefat Scrub, Coastal Sage-Chaparral Transition, Diegan Coastal Sage Scrub, and Disturbed Diegan Coastal Sage Scrub is identified in MM-6, which requires a total of 11.55 acres of these vegetation communities be preserved at a 1:1 ratio. MM-7requires impacts to 0.12 acre of CDFW jurisdiction and 0.06 acre of RWQCB jurisdiction be mitigated at a 2:1 ratio. This can be accomplished through either on-site preservation and restoration, off-site acquisition, in lieu fees, a purchase of credits from an approved mitigation bank, or a combination thereof as approved by the Planning Manager, CDFW and RWQCB. Additionally, the City previously approved a Final Map designating development of the entire project site in the early 1990s. The current project proposes development of only a portion of the project site. Therefore, implementation of the project does not conflict with this policy.

Policy COS-1.2: Ensure that new development, including Capital Improvement Projects, maintain the biotic habitat value of riparian areas, oak woodlands, habitat linkages, and other sensitive habitats.

The project site supports riparian areas and a habitat linkage. On site Natural Floodchannel/Streambed, Mulefat Scrub, Coastal Sage-Chaparral Transition, Diegan Coastal Sage Scrub, and Disturbed Diegan Coastal Sage Scrub is considered sensitive; however, mitigation for impacts to habitat is identified in MM-6, which would require a total of 11.55 acres of these vegetation communities be preserved at a 1:1 ratio. MM-7 requires impacts to 0.12 acre of CDFW jurisdiction and 0.06 acre of RWQCB jurisdiction be mitigated at a 2:1 ratio. This can be accomplished through either on-site preservation and restoration, off-site acquisition, in lieu fees, a purchase of credits from an approved mitigation bank, or a combination thereof as approved by the Planning Manager, CDFW and RWQCB. The project would avoid most of the primary drainage and its tributary and would avoid the City-identified wildlife corridor in the northeastern portion of the project site. The proposed project would therefore maintain most of the biotic habitat value of the on-site riparian area and that of the wildlife corridor on site. Additionally, the City previously approved a Final Map designating development of the entire project site in the early 1990s. The current project proposes development of only a portion of the project site. Therefore, the project does not conflict with this policy.

Policy COS-2.1: Provide and protect open space areas throughout the City for its recreational, agricultural, safety, and environmental value.

The project site has a history of disturbance and contains fill from prior adjacent land uses including a quarry and the Brookfield Homes residential development. A Final Map (Map No. 12781) for City of San Marcos Tract No. 292 was recorded for the site in the early 1990s encompassing the entire project site with an industrial project. The current project proposes development of only a portion of the project site. Parcel B would be comprised of the avoided open space and would be a legally recorded lot. Therefore, implementation of the project does not conflict with this policy.

Policy COS-2.2: Limit, to the extent feasible, the conversion of open space to urban uses and place a high priority on acquiring and preserving open space lands for recreation, habitat protection and enhancement, flood hazard management, water and agricultural resources protection, and overall community benefit.

The project site has a history of disturbance and contains fill from prior adjacent land uses including a quarry and the Brookfield Homes residential development. A Final Map (Map No. 12781) for City of San Marcos Tract No. 292 was recorded for the site in the early 1990s encompassing the entire project site with an industrial project. The current project proposes development of only a portion of the project site. Parcel B would be comprised of the avoided open space and would be a legally recorded lot. Mitigation for habitat impacts can be accomplished through either on-site preservation and restoration, off-site acquisition, in lieu fees, a purchase of credits from an approved mitigation bank, or a combination thereof as approved by the Planning Manager, CDFW and RWQCB. Therefore, implementation of the project does not conflict with this policy.

Policy COS-2.6: Preserve healthy mature trees where feasible; where removal is necessary, trees shall be replaced at a ratio of 1:1.

Several mature Mexican fan palms are located along the upstream portion of the primary drainage near the north property boundary. Project implementation would not remove these trees, as they are located outside of the project development footprint. Therefore, implementation of the project does not conflict with this policy.

5.6 Habitat Conservation Plans

The proposed project would have a significant effect on biological resources if it would:

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

The study area is located within the MHCP, which identifies a series of FPAs within which some lands will be dedicated for preservation of native habitats. BCLAs were designed to conserve sensitive species and corridors between areas of high-quality habitat and to provide avenues for wildlife movement between these areas. Impacts to wart-stemmed ceanothus, CAGN, other special-status wildlife species described in Impact-3 above, and riparian habitat and other sensitive natural communities would conflict with the MHCP and would be a significant impact without mitigation.

The study area is not located within an FPA, as illustrated in Figure 2-1 of the Final MHCP Plan (AMEC et al. 2003b). The project area is not within a BCLA, as illustrated in Figure 2-3 of the Final MHCP Plan (AMEC et al. 2003b). Descriptions of how impacts would be reduced to less than significant are presented above and in the MMs below. Additionally, MM-8 requires measures be implemented to reduce indirect impacts to the environment (e.g., picking up trash). With the

implementation of these mitigation measures, the project would not conflict with the MHCP provisions.

6 Mitigation, Monitoring, and Reporting

The following mitigation measures are proposed to reduce potential project impacts to below a level of significance.

6.1 Mitigation for Special-Status Species

MM-1: Coastal California Gnatcatcher Surveys

Protocol Surveys

An update presence/absence protocol survey of the project site and a 500-foot buffer around the project site shall be conducted by a qualified biologist with a valid USFWS 10(a)(1)(A) permit to determine the presence of CAGN that could be affected by construction activities, including vegetation clearance. In accordance with the USFWS survey protocol, a minimum of six breeding season surveys will be conducted at least one week apart from March 15, 2021 through June 30, 2021. The results of the survey shall be submitted to the USFWS upon completion of the survey.

Pre-Vegetation Clearance Survey

If CAGN is detected during the protocol survey, vegetation clearing shall only be conducted between September 1 and February 14, outside of the breeding season for CAGN. If vegetation clearing would start outside of those dates, then surveys would be conducted prior to vegetation clearing. If nests are found, they would be avoided by establishing a 500-foot buffer around the nest as a mitigation measure to allow vegetation clearance to continue. No more than three (3) days prior to the clearing of vegetation, a qualified biologist shall conduct one survey for CAGN to ensure that the vegetation on site is not occupied by the species. If the vegetation clearance survey identifies the presence of CAGN, the project biologist shall delay the removal of vegetation until CAGN has left the project site of their own volition.

MM-2: Nesting Birds and Raptors

If site clearing activities are conducted between February 1 and August 31, a qualified biologist shall conduct a nesting bird survey no more than three days prior to the start of such activities to identify nesting birds within the project site and a 250-foot buffer around the project site. If any nests are found, their locations shall be flagged and an appropriate avoidance buffer, ranging in size from 25 to 50 feet for passerines, and up to 500 feet for raptors depending upon the species and the proposed work activity, shall be determined and demarcated by a qualified biologist with bright orange construction fencing or other suitable flagging. Active nests shall be monitored at a minimum of once per week until it has been determined that the nest is no longer being used by either the young or adults. No disturbance shall occur within this buffer until the qualified biologist confirms that breeding/nesting is completed, and all the young have fledged. If project activities must occur within the buffer, activities shall be conducted at the discretion of the qualified biologist and with monitoring and management to ensure that nesting birds and the nests are not disturbed. If no nesting birds are observed during the survey or during other monitoring activities, then no further actions shall be necessary. A follow-up survey will be needed if site clearing does not occur within three days after the initial survey.

MM-3: Worker Environmental Awareness Program

The applicant is required to have a WEAP for the construction crew that will be developed and implemented by a qualified biologist. Each employee (including temporary, contractors, and subcontractors) will receive the WEAP on the first day of working on the proposed project. They will be advised of the potential impact to the listed species and the potential penalties for taking such species. At a minimum, the WEAP will include the following topics: occurrence of the listed and sensitive species in the area, their general ecology, sensitivity of the species to human activities, legal protection afforded these species, penalties for violations of Federal and State laws, reporting requirements, and project features designed to reduce direct and indirect impacts to these species and promote continued successful occupation of the project area environs.

MM-4: Work Limit Delineation

Construction work areas shall be delineated and marked clearly, by flagging or temporary orange construction fencing, in the field prior to habitat removal, and the marked boundaries will be maintained and clearly visible to personnel on foot and by heavy equipment operators. Fencing shall be placed on the impact side to reduce the potential for additional vegetation loss within open space. Fencing shall be put in place by a qualified biologist or the project applicant. All temporary fencing shall be removed only after the conclusion of all grading, clearing, and construction. Employees shall strictly limit their activities and vehicles to the proposed project areas, staging areas, and routes of travel. The biological monitor shall verify that the limits of construction have been properly staked and are readily identifiable. Intrusion by unauthorized vehicles outside of construction limits shall be prohibited, with control exercised by an on-site foreman. Access routes to the construction area outside of work hours shall be blocked with physical barriers, such as concrete blocks or large equipment.

MM-5: Biological Monitor

A City-approved, qualified biologist shall be present during all vegetation clearing and other activities with the potential to affect CAGN and will monitor the project to ensure that there are no unanticipated impacts to the CAGN and its habitat. The biologist shall have the authority to halt all associated project activities that may be in violation of the protective measures.

If CAGN are found to be within the survey area (project site plus a 500-foot buffer) during protocol or pre-construction surveys, the following avoidance and minimization measures shall be implemented.

a. To reduce potential noise impacts to nesting CAGN, a qualified biologist shall monitor noise levels with a noise monitoring device at an appropriate distance from the nest to determine if construction activity noise is above 60 dBA, the standard level requested by the USFWS, or if noise levels above 60 dBA have the potential to affect any CAGN nests.
b. If/when an active CAGN nest is identified, an acoustician shall monitor noise at the edge of construction as directed by the qualified biologist. If noise levels continue to exceed 60 dBA, the acoustician shall consult with the qualified biologist and provide requirements for the construction contractor to make operational and barrier changes to reduce noise levels to 60 dBA during the breeding season (February 15 through August 31). Noise monitoring will occur during operational changes and installation of barriers, as needed, to ensure their effectiveness. If the noise meets or exceeds the 60 dB(A) Leq threshold, or if the biologist determines that the activities in general are disturbing the nesting activities, the biologist shall have the authority to

halt construction and shall consult with the CDFW and USFWS to devise methods to reduce the noise and/or disturbance in the vicinity. This may include methods such as, but not limited to, turning off vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nesting coastal CAGN and the activities, and working in other areas until the young have fledged.

All active nests will be reported within 24 hours to the USFWS upon detection.

6.2 Mitigation for Sensitive Vegetation Communities

MM-6: Mitigation for Natural Floodchannel/Streambed, Mulefat Scrub, Coastal Sage-Chaparral Transition, Diegan Coastal Sage Scrub, and Disturbed Diegan Coastal Sage Scrub

The MHCP has classified vegetation communities and landcover into six classes, as shown in Table 3, based on rarity and ecological importance (AMEC et al. 2003a, 2003b). The MHCP has also established mitigation ratios based upon whether the impacted habitat is within or outside an FPA.

Table 3 MHCP Habitat Group and Type and Associated Mitigation Ratios

Habitat Group	Type	Mitigation Ratio by Location of Impacted Habitat Outside Focus Planning Area
A	Coastal salt marsh, alkali marsh, freshwater marsh, estuarine, salt pan/mudflats, riparian forest, riparian woodland, riparian scrub, vernal pool, disturbed wetland, flood channel, fresh water	No net loss goal (mitigation varies by type of replacement habitat)
B	Southern coastal bluff scrub, maritime succulent scrub, southern maritime chaparral, Engelmann oak woodland, coast live oak woodland, native grassland	2:1
C	Coastal sage scrub, coastal sage/chaparral mix	1:1
D	Chaparral (excluding southern maritime chaparral)	0.5:1
E	Annual (non-native) grassland	0.5:1
F	Disturbed, agriculture land, eucalyptus	None

Source: AMEC et al. 2003a, 2003b

The project site is not within an MHCP FPA; therefore, permanent loss of Natural Floodchannel/Streambed and Mulefat Scrub will be mitigated at a minimum 1:1 ratio in accordance with Table 4-7 of the MHCP (AMEC et al. 2003a), and permanent loss of Coastal Sage-Chaparral Transition, Diegan Coastal Sage Scrub, and Disturbed Diegan Coastal Sage Scrub will be mitigated at a 1:1 ratio. Section 5.2.1 of the City of San Marcos Draft Subarea Habitat Conservation Plan references the preferred order of mitigation to be on-site mitigation, off-site acquisition, in-lieu fees, and mitigation credits. For mitigation purposes, the Diegan Coastal Sage Scrub and Disturbed Diegan Coastal Sage Scrub acreages on the project site that would be impacted have been combined as these two (2) vegetation communities are considered to have similar sensitivity under the MHCP. Thus, a minimum of 0.12 acre of Natural Floodchannel/Streambed, 0.01 acre of Mulefat Scrub, 3.35 acres of Coastal Sage-Chaparral Transition, and 8.07 acres of Diegan Coastal Sage Scrub will be preserved by the project applicant through either on-site preservation, off-site acquisition, in lieu fees, a purchase of credits from an approved mitigation bank, or a combination thereof as approved by the Planning Manager prior to issuance of the grading permit.

6.3 Mitigation for Jurisdictional Waters

MM-7: Mitigation for Jurisdictional Waters

An AJD Form will be processed with USACE and permit authorizations from RWQCB and CDFW will be obtained prior to project implementation. To mitigate temporary impacts to CDFW and RWQCB jurisdictional areas, the project applicant shall restore temporarily disturbed jurisdictional areas at a 1:1 ratio. To mitigate permanent impacts to 0.12 acre of CDFW jurisdiction and 0.06 acre of RWQCB jurisdiction, the project applicant shall restore in-kind habitat on site at a 2:1 ratio, as approved by CDFW and RWQCB. If on-site restoration is infeasible, mitigation may be completed by providing adequate funding to either a third-party organization, conservation bank or in-lieu fee program for the in-kind creation or restoration at a 2:1 ratio. If mitigation is implemented off site, mitigation lands should be in the same County as the site. Mitigation shall be implemented prior to issuance of the grading permit.

MM-8: Best Management Practices

The following best management practices (BMPs) shall be implemented for project construction activities in the project site.

- No pets or firearms will be allowed at the project site during construction activities
- During project activities, all trash that may attract predators will be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas
- All refueling or maintenance activities will be conducted at least 100 feet outside of jurisdictional waters and wetlands. Pallets or secondary containment areas for chemicals, drums, or bagged materials will be provided. Should spills occur, materials and/or contaminants will be cleaned from the project site and recycled or disposed of to the satisfaction of the RWQCB
- All vehicles and equipment will be in good working condition and free of leaks
- Construction work will be restricted to daylight hours (7:00 a.m. to 7:00 p.m.)
- All open trenches will be completely and securely covered at the end of each day or constructed with appropriate exit ramps to allow species that accidentally fall into a trench to escape. Trenches will remain open for the shortest period necessary to complete required work and will be checked for sensitive resources immediately prior to backfilling
- No water will be impounded in a manner to attract sensitive species
- Erosion control and landscaping specifications will allow only natural-fiber, biodegradable meshes, and coir rolls, (i.e., no plastic-mesh temporary erosion control measures) to prevent impacts to the environment, fish, and terrestrial wildlife
- During construction, the project will make all reasonable efforts to limit the use of imported soils for fill. Soils currently existing on site should be used for fill material. If the use of imported fill material is necessary, the imported material must be obtained from a source known to be free of invasive plant species
- Equipment and vehicles must be free of caked on mud and weed seeds/propagules before accessing and leaving the project site
- Crews will stay on designated, flagged routes to avoid rodent burrows

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8 List of Preparers

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Appendix A

Floral and Faunal Compendium

Floral and Faunal Compendium

Scientific Name	Common Name	Status	Origin
Plants			
Acmispon glaber	deerweed	–	native
Adenostoma fasciculatum	chamise	–	native
Amaranthus albus	tumbleweed	–	non-native
Artemisia californica	California sagebrush	–	native
Avena barbata	slender wild oats	Cal-IPC Moderate	non-native
Baccharis pilularis	coyote brush	–	native
Baccharis salicifolia	mulefat	–	native
Brassica nigra	black mustard	Cal-IPC Moderate	non-native
Bromus hordeaceus	soft chess	Cal-IPC Limited	non-native
Bromus madritensis	red brome	Cal-IPC High	non-native
Calystegia macrostegia	bindweed	–	native
Carduus pycnocephalus	Italian thistle	Cal-IPC Moderate	non-native
Ceanothus tomentosus	woolly-leaved ceanothus	–	native
Ceanothus verrucosus	wart-stemmed ceanothus	CRPR 2B.2	native
Centaurea melitensis	tocalote	Cal-IPC Moderate	non-native
Centaurea solstitialis	yellow star thistle	Cal-IPC High	non-native
Cercocarpus betuloides	California mountain mahogany	–	native
Cortaderia selloana	pampas grass	Cal-IPC High	non-native
Crocanthemum scoparium	peak rush-rose	–	native
Cryptantha intermedia	common cryptantha	–	native
Cuscuta californica	chaparral dodder	–	native
Cyperus eragrostis	tall flatsedge	–	native
Daucus pusillus	rattlesnake carrot	–	native
Deinandra fasciculata	fascicled tarplant	–	native
Dudleya pulverulenta	chalk dudleya	–	native
Encelia californica	California bush sunflower	–	native
Eriastrum sapphirinum	sapphire woollystar	–	native
Erigeron canadensis	horseweed	–	native
Eriogonum fasciculatum	California buckwheat	–	native
Eriophyllum confertiflorum	golden yarrow	–	native
Erodium cicutarium	redstem filaree	Cal-IPC Limited	non-native
Euphorbia polycarpa	rattlesnake weed	–	native
Foeniculum vulgare	sweet fennel	Cal-IPC Moderate	non-native
Gazenia linearis	gazenia	Cal-IPC Moderate	non-native
Hazardia squarrosa	sawtooth goldenbush	–	native
Heliotropium curassavicum	wild heliotrope	–	native
Helminthotheca echioides	bristly ox-tongue	Cal-IPC Limited	non-native
Heteromeles arbutifolia	toyon	–	native

Scientific Name	Common Name	Status	Origin
Hirschfeldia incana	shortpod mustard	Cal-IPC Moderate	non-native
Hordeum sp.	barley	–	
Isocoma menziesii var. *menziesii*	coastal goldenbush	–	native
Lactuca serriola	prickly lettuce	–	non-native
Lepidium didymium	lesser swine cress	–	non-native
Limonium sinuatum	sinuate sea-lavender	–	non-native
Lysimachia arvensis	scarlet pimpernel	–	non-native
Malacothamnus fasciculatus	chaparral bush mallow	–	native
Malacothrix saxatilis	cliff aster	–	native
Malosma laurina	laurel sumac	–	native
Mesembryanthemum nodiflorum	slenderleaf iceplant	Cal-IPC Limited	non-native
Nicotiana glauca	tree tobacco	Cal-IPC Moderate	non-native
Pennisetum setaceum	crimson fountain grass	Cal-IPC Moderate	non-native
Plantago erecta	dwarf plantain	–	native
Polypogon monspeliensis	rabbitsfoot grass	Cal-IPC Limited	non-native
Pluchea sericea	arrow-weed	–	native
Pseudognaphalium biolettii	bicolor cudweed	–	native
Quercus agrifolia	coast live oak	–	native
Rumex crispus	curly dock	Cal-IPC Limited	non-native
Salsola tragus	Russian thistle	Cal-IPC Limited	non-native
Salvia columbariae	chia	–	native
Salvia mellifera	black sage	–	native
Sambucus nigra ssp. *caerulea*	blue elderberry	–	native
Scrophularia californica	California bee plant	–	native
Sonchus oleraceus	common sow-thistle	–	non-native
Tamarix sp.	tamarisk	–	non-native
Typha latifolia	broad-leaved cattail	–	native
Uropappus lindleyi	Lindley's silverpuffs	–	native
Washingtonia robusta	Mexican fan palm	Cal-IPC Moderate	non-native
Xanthium strumarium	cocklebur	–	native
Xylococcus bicolor	mission manzanita	–	native
Zeltnera venusta	California centaury	–	native
Wildlife			
Aphelocoma californica	California scrub-jay	–	native
Buteo jamaicensis	red-tailed hawk	–	native
Callipepla californica	California quail	–	native
Chamaea fasciata	wrentit	–	native
Geothlypis trichas	common yellowthroat	–	native
Haemorhous mexicanus	house finch	–	native
Melozone crissalis	California towhee	–	native

Scientific Name	Common Name	Status	Origin
Mimulus polyglottos	northern mockingbird	–	native
Pipilo maculatus	spotted towhee	–	native
Polioptila caerulea	blue-gray gnatcatcher	–	native
Psaltriparus minimus	bushtit	–	native
Spinus psaltria	lesser goldfinch	–	native
Stelgidopteryx serripennis	northern rough-winged swallow	–	native
Sylvilagus audubonii	desert cottontail	–	native
Thryomanes bewickii	Bewick's wren	–	native
Zenaida macroura	mourning dove	–	native

CRPR (CNPS California Rare Plant Rank)

1A = Presumed Extinct in California

1B = Rare, Threatened, or Endangered in California and elsewhere

2 = Rare, Threatened, or Endangered in California, but more common elsewhere

3 = Need more information (a Review List)

4 = Plants of Limited Distribution (a Watch List)

CRPR Threat Code Extension

.1 = Seriously endangered in California (>80% of occurrences threatened / high degree and immediacy of threat)

.2 = Fairly endangered in California (20-80% of occurrences threatened)

.3 = Not very endangered in California (<20% of occurrences threatened)

California Invasive Plant Council (Cal-IPC)

Limited = Invasive but ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

Moderate = Have substantial and apparent, but generally not severe, ecological impacts on physical processes, plant and animal communities, and vegetation structure. Reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.

High = Have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.

Sources: June 18, 2020 biological reconnaissance survey; CDFW 2020c, 2020d; Cal-IPC 2020; Calflora 2020

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Appendix B

Site Photographs

Photograph 1. Northwest view of dirt road and SDG&E easement.

Photograph 2. Northwest view of ornamental area near Melrose Drive and adjacent concrete culvert.

Photograph 3. View of disturbed coastal sage scrub, facing south.

Photograph 4. Representative view of coastal sage scrub vegetation community with palm trees.

Photograph 5. Representative view of disturbed coastal sage scrub with storm drain pipes.

Photograph 6. Upstream view of pampas grass and Mexican fan palms in drainage.

Photograph 7. Upstream view of main drainage with pampas and California buckwheat.

Photograph 8. Downstream view of main drainage with Italian thistle and pampas grass in channel bed.

Photograph 9. Upstream view of main drainage with dense broad-leaved cattail, bristly ox-tongue and pampas grass.

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Appendix C

Special-Status Species Evaluation Table

Special-Status Species Evaluation Table

Scientific Name Common Name	Status Fed/State ESA CRPR,CDFW MHCP Covered	Habitat Requirements	Potential for Occurrence/ Basis for Determination
Plants			
Acanthomintha ilicifolia San Diego thorn-mint	FT/SE 1B.1 MHCP Covered Species	Chaparral, coastal scrub, valley and foothill grassland, vernal pools. Endemic to active vertisol clay soils of mesas and valleys. Usually on clay lenses within grassland or chaparral communities. 10-960 meters (m). annual herb. Blooms Apr-Jun	**No Potential.** The species' associated soils are not present in the study area.
Adolphia californica California adolphia	None/None 2B.1	Chaparral, coastal sage scrub, valley and foothill grassland. On clay soils within grassland, coastal sage scrub, or chaparral; various exposures. 10-740 m. perennial deciduous shrub. Blooms Dec-May	**No Potential.** The species' associated soils are not present in the study area. This species was not detected during the reconnaissance survey.
Ambrosia pumila San Diego ambrosia	FE/None 1B.1 MHCP Covered Species	Chaparral, coastal scrub, valley and foothill grassland. Sandy loam or clay soil; sometimes alkaline. In valleys; persists where disturbance has been superficial. Sometimes on margins or near vernal pools. 20-415 m. perennial rhizomatous herb. Blooms Apr-Oct	**Low Potential.** Limited suitable habitat (sandy areas) present in the study area. This species was not detected during the reconnaissance survey.
Arctostaphylos glandulosa ssp. Crassifolia Del Mar manzanita	FE/None 1B.1 MHCP Covered Species	Chaparral. Sandy coastal mesas and ocean bluffs; in chaparral or Torrey pine (*Pinus torreyana* ssp. *torreyana*) forest. 0-365 m. perennial evergreen shrub. Blooms Dec-Jun	**No Potential.** Suitable habitat is not present in the study area, which is too far from the coast. This species was not detected in the study area.
Atriplex coulteri Coulter's saltbush	None/None 1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland. Ocean bluffs, ridgetops, as well as alkaline low places. Alkaline or clay soils. 3-460 m. perennial herb. Blooms Mar-Oct	**No Potential.** The species' associated soils are not present in the study area.
Atriplex pacifica South Coast saltscale	None/None 1B.2	Coastal scrub, coastal bluff scrub, playas, coastal dunes. Alkali soils. <140 m. annual herb. Blooms Mar-Oct	**No Potential.** The species' associated soils are not present in the study area.
Atriplex parishii Parish's brittlescale	None/None 1B.1	Vernal pools, chenopod scrub, playas. Usually on drying alkali flats with fine soils. 25-1900 m. annual herb. Blooms Jun-Oct	**No Potential.** The species' associated habitat is not present in the study area.
Baccharis vanessae Encinitas baccharis	FT/SE 1B.1 MHCP Covered Species	Chaparral, cismontane woodland. On sandstone soils in steep, open, rocky areas with chaparral associates. 60-720 m. perennial deciduous shrub. Blooms Aug, Oct, Nov	**No Potential.** This conspicuous shrub species was not observed during the reconnaissance survey.
Bloomeria clevelandii San Diego goldenstar	None/None 1B.1	Coastal sage scrub, chaparral, valley and foothill grassland, freshwater wetlands in vernal pools and clay soils. 50-465 m. perennial bulbiferous herb. Blooms Apr-May.	**No Potential.** The species' associated soils are not present in the study area.

Scientific Name Common Name	Status Fed/State ESA CRPR,CDFW MHCP Covered	Habitat Requirements	Potential for Occurrence/ Basis for Determination
Brodiaea filifolia thread-leaved brodiaea	FT/SE 1B.1	Chaparral (openings), cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools. Usually associated with annual grassland and vernal pools; often surrounded by shrubland habitats. Occurs in openings on clay soils. 25-1120 m. perennial bulbiferous herb. Blooms Mar-Jun	**No Potential.** Annual grassland, vernal pools and clay soils are not present in the study area.
Brodiaea orcuttii Orcutt's brodiaea	None/None 1B.1	Vernal pools, valley and foothill grassland, closed-cone coniferous forest, cismontane woodland, chaparral, meadows and seeps. Mesic, clay habitats; usually in vernal pools and small drainages. 30-1692 m. perennial bulbiferous herb. Blooms May-Jul	**No Potential.** Clay soils are not present in the study area.
Ceanothus cyaneus Lakeside ceanothus	None/None 1B.2	Chaparral, closed-cone coniferous forest. 235-755 m. perennial evergreen shrub. Blooms Apr-Jun	**No Potential.** The study area is outside this species' known geographic range.
Ceanothus verrucosus wart-stemmed ceanothus	None/None 2B.2 MHCP Covered Species	Chaparral. 1-380 m. perennial evergreen shrub. Blooms Dec-May	**Present.** Approximately 440 individuals were observed by Dudek in 2002.
Centromadia parryi ssp. *Australis* southern tarplant	None/None 1B.1	Marshes and swamps (margins), valley and foothill grassland, vernal pools. Often in disturbed sites near the coast at marsh edges; also in alkaline soils sometimes with saltgrass (*Distichlis spicata*). Sometimes on vernal pool margins. 0-975 m. annual herb. Blooms May-Nov	**No Potential.** Marshes, swamps, grassland, and vernal pools are not present in the study area.
Chorizanthe orcuttiana Orcutt's spineflower	FE/SE 1B.1	Coastal scrub, maritime chaparral, closed-cone coniferous forest. Sandy sites and openings; sometimes in transition zones. 3-125 m. annual herb. Blooms Mar-May	**No Potential.** The study area is outside the known range of the species, with most records being coastal.
Clarkia delicata delicate clarkia	None/None 1B.2	Cismontane woodland, chaparral. Often on gabbro soils. 235-1000 m. annual herb. Blooms Apr-Jun	**No Potential.** The study area is outside the known range of the species.
Comarostaphylis diversifolia ssp. *diversifolia* summer holly	None/None 1B.2 MHCP Covered Species	Chaparral, cismontane woodland. Often in mixed chaparral in California, sometimes post-burn. 30-790 m. perennial evergreen shrub. Blooms Apr-Jun	**Low Potential.** Limited potential chaparral habitat is present in the study area. This species was not seen during the reconnaissance survey.
Corethrogyne filaginifolia var. *incana* San Diego sand aster	None/None 1B.1	Coastal scrub, coastal bluff scrub, chaparral. Most sites are disturbed, so hard to tell. Possibly in disturbed sites and ecotones. 3-115 m. perennial herb. Blooms Jun-Sep	**No Potential.** The study area is outside the known range of the species, with most records being coastal.

Scientific Name Common Name	Status Fed/State ESA CRPR,CDFW MHCP Covered	Habitat Requirements	Potential for Occurrence/ Basis for Determination
Corethrogyne filaginifolia var. *linifolia* Del Mar Mesa sand aster	None/None 1B.1 MHCP Covered Species	Chaparral, coastal scrub, coastal bluff scrub. In coastal, shrubby communities on maritime sandy sediments and conglomerates; in openings. 15-150 m. perennial herb. Blooms May, Jul, Aug, and Sep	**No Potential.** The species' associated soils are not present in the study area.
Cryptantha wigginsii Wiggins' cryptantha	None/None 1B.2	Coastal scrub. Often on clay soils. 45-110 m. annual herb. Blooms Feb-Jun	**No Potential.** The species' associated soils are not present in the study area.
Dudleya blochmaniae ssp. *Blochmaniae* Blochman's dudleya	None/None 1B.1	Coastal scrub, coastal bluff scrub, chaparral, valley and foothill grassland. Open, rocky slopes; often in shallow clays over serpentine or in rocky areas with little soil. 5-450 m. perennial herb. Blooms Apr-Jun	**No Potential.** Only chalk dudleya (*Dudleya pulverulenta*) was detected in the study area.
Dudleya variegata variegated dudleya	None/None 1B.2	Chaparral, coastal scrub, cismontane woodland, valley and foothill grassland. In clay soils; sometimes associated with vernal pool margins. 3-580 m. perennial herb. Blooms Apr-Jun	**No Potential.** Only chalk dudleya (*Dudleya pulverulenta*) was detected in the study area.
Dudleya viscida sticky dudleya	None/None 1B.2	Coastal scrub, coastal bluff scrub, chaparral, cismontane woodland. On north and south-facing cliffs and banks. 10-550 m. perennial herb. Blooms May-Jun	**No Potential.** Only chalk dudleya (*Dudleya pulverulenta*) was detected in the study area.
Eryngium aristulatum var. *parishii* San Diego button-celery	FE/SE 1B.1	Vernal pools, coastal scrub, valley and foothill grassland. San Diego mesa hardpan and claypan vernal pools and southern interior basalt flow vernal pools; usually surrounded by scrub. 20-620 m. annual/perennial herb. Blooms Apr-Jun	**No Potential.** The species' associated habitat is not present in the study area.
Ferocactus viridescens San Diego barrel cactus	None/None 2B.1 MHCP Covered Species	Chaparral, coastal scrub, valley and foothill grassland, vernal pools. Often on exposed, level or south-sloping areas; often in coastal scrub near crest of slopes. 3-450 m. perennial stem succulent. Blooms May-Jun	**No Potential.** This species was not detected in the study area during the reconnaissance survey.
Hazardia orcuttii Orcutt's hazardia	None/ST 1B.1 MHCP Covered Species	Maritime chaparral, coastal scrub. Often on clay; in grassy edges of chaparral and coastal scrub. 80-85 m. perennial evergreen shrub. Blooms Aug-Oct	**No Potential.** The species' associated clay soils are not in the study area. The CNDDB occurrence within the five-mile radius is a transplant outside of its native habitat/range.
Heterotheca sessiliflora ssp. *Sessiliflora* beach goldenaster	None/None 1B.1	Coastal dunes, coastal scrub, chaparral (coastal). Sandy sites. 0-1225 m. perennial herb. Blooms Mar-Dec	**Low Potential.** Limited potential coastal sage scrub is present in the study area.

Scientific Name Common Name	Status Fed/State ESA CRPR,CDFW MHCP Covered	Habitat Requirements	Potential for Occurrence/ Basis for Determination
Horkelia truncata Ramona horkelia	None/None 1B.3	Chaparral, cismontane woodland. Habitats in California include: mixed chaparral, vernal streams, and disturbed sites near roads. Clay soil; at least sometimes on gabbro. 400-1300 m. perennial herb. Blooms May-Jun	**No Potential.** The species' associated soils are not present in the study area. Additionally, the study area is outside of the species' known geographic range.
Isocoma menziesii var. *decumbens* decumbent goldenbush	None/None 1B.2	Coastal scrub, chaparral. Sandy soils; often in disturbed sites. 10-135 m. perennial shrub. Blooms Apr-Nov	**No Potential.** *I. m.* var. *menziesii* was identified as occurring in the study area based upon the plants being glabrous or slightly hairy, sometimes resinous, as opposed to *I. m.* var. *decumbens* being prominently long-soft-hairy or tomentose.
Iva hayesiana San Diego marsh-elder	None/None 2B.2 MHCP Covered Species	Marshes and swamps, alkali sinks, wetland-riparian, and playas. 10-500m. perennial herb. Blooms Apr-Oct.	**No Potential.** The species' associated habitat is not present in the study area.
Lasthenia glabrata ssp. *Coulteri* Coulter's goldfields	None/None 1B.1	Coastal salt marshes, playas, vernal pools. Usually found on alkaline soils in playas, sinks, and grasslands. 1-1220 m. annual herb. Blooms Feb-Jun	**No Potential.** The species' associated habitat is not present in the study area.
Leptosyne maritima sea dahlia	None/None 2B.2	Coastal scrub, coastal bluff scrub. Occurs on a variety of soil types, including sandstone. 5-150 m. perennial herb. Blooms Mar-May	**Low Potential.** Limited potential habitat (coastal sage scrub) is present in the study area.
Monardella hypoleuca ssp. *lanata* felt-leaved monardella	None/None 1B.2	Chaparral, cismontane woodland. Occurs in understory in mixed chaparral, chamise chaparral, and southern oak woodland; sandy soil. 300-1575 m. perennial rhizomatous herb. Blooms Jun-Aug	**No Potential.** The study area is outside this species' known geographic range.
Navarretia fossalis spreading navarretia	FT/None 1B.1 MHCP Covered Species	Vernal pools, chenopod scrub, marshes and swamps, playas. San Diego hardpan and San Diego claypan vernal pools; in swales and vernal pools, often surrounded by other habitat types. 30-655 m. annual herb. Blooms Apr-Jun	**No Potential.** The species' associated habitat is not present in the study area.
Pinus torreyana ssp. *Torreyana* Torrey pine	None/None 1B.2 MHCP Covered Species	Closed-cone coniferous forest, chaparral. On dry, sandstone slopes. 30-160 m. perennial evergreen tree.	**No Potential.** The species' associated soils are not present in the study area.
Pogogyne abramsii San Diego mesa mint	FE/SE 1B.1	Vernal pools within grasslands, chamise chaparral, or coastal sage scrub communities. 90-200 m. annual herb. Blooms Mar-Jul	**No Potential.** The species' associated habitat (vernal pools) is not present in the study area.

Scientific Name Common Name	Status Fed/State ESA CRPR,CDFW MHCP Covered	Habitat Requirements	Potential for Occurrence/ Basis for Determination
Quercus dumosa Nuttall's scrub oak	None/None 1B.1 MHCP Covered Species	Closed-cone coniferous forest, chaparral, coastal scrub. Generally, on sandy soils near the coast; sometimes on clay loam. 15-400 m. perennial evergreen shrub. Blooms Feb-Apr (May-Aug)	**No Potential.** This species was not detected during the reconnaissance survey.
Salvia munzii Munz's sage	None/None 2B.2	Coastal scrub, chaparral. Rolling hills and slopes, in rocky soil. 115-1065 m. perennial evergreen shrub. Blooms Feb-Apr	**Low Potential.** Limited potential coastal sage scrub and chaparral habitat is present in the study area. This species has not been observed in the study area.
Stemodia durantifolia purple stemodia	None/None 2B.1	Sonoran desert scrub. Sandy soils; mesic sites. 180-300 m. perennial herb. Blooms (Jan) Apr, Jun, Aug, Sep, Oct, Dec	**No Potential.** The species' associated habitat is not present in the study area. Additionally, the study area is outside of the species' known geographic range.
Suaeda esteroa estuary seablite	None/None 1B.2	Marshes and swamps. Coastal salt marshes in clay, silt, and sand substrates. 0-80 m. perennial herb. Blooms (May)Jul-Oct(Jan)	**No Potential.** The species' associated habitat is not present in the study area. Additionally, the study area is outside of the species' known geographic range.
Tetracoccus dioicus Parry's tetracoccus	None/None 1B.2 MHCP Covered Species	Chaparral, coastal scrub. Stony, decomposed gabbro soil. 135-705 m. perennial deciduous shrub. Blooms Apr-May	**No Potential.** The species' associated soils are not present in the study area.
Invertebrates			
Branchinecta sandiegonensis San Diego fairy shrimp`	FE/None None	Endemic to San Diego and Orange County mesas. Vernal pools.	**No Potential.** The species' associated habitat is not present in the study area.
Amphibians			
Spea hammondii western spadefoot	None/None SSC	Road rut pools, vernal pools, alluvial fans, and streams in grassland habitats and valley-foothill hardwood woodlands.	**No Potential.** The species' associated habitat is not present in the study area.
Reptiles			
Arizona elegans occidentalis California glossy snake	None/None SSC	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	**Moderate Potential.** The species' associated habitat is present in the study area.
Aspidoscelis hyperythra orange-throated whiptail	None/None WL MHCP Covered Species	Intact coastal sage scrub, *Eriogonum fasciculatum* dominant, Salvia, Yucca, Opuntia, and Artemisia present.	**High Potential.** Highly suitable coastal sage scrub species are present in the study area.

Scientific Name Common Name	Status Fed/State ESA CRPR,CDFW MHCP Covered	Habitat Requirements	Potential for Occurrence/ Basis for Determination
Aspidoscelis tigris stejnegeri coastal whiptail	None/None SSC	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.	**High Potential.** Highly suitable habitat is present in the study area.
Crotalus ruber red-diamond rattlesnake	None/None SSC	Chaparral, woodland, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains. Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects.	**Moderate Potential.** The species' associated habitat is present in the study area.
Phrynosoma blainvillii coast horned lizard	None/None SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	**Moderate Potential.** Moderately suitable habitat is present in the study area.
Plestiodon skiltonianus interparietalis Coronado skink	None/None WL	Grassland, chaparral, pinon-juniper and juniper sage woodland, pine (*Pinus* sp.)-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.	**Low Potential.** Limited potential chaparral habitat is present in the study area.
Salvadora hexalepis virgultea coast patch-nosed snake	None/None SSC	Brushy or shrubby vegetation in coastal Southern California. Require small mammal burrows for refuge and overwintering sites.	**Moderate Potential.** Moderately suitable habitat is present in the study area.
Thamnophis hammondii two-striped gartersnake	None/None SSC	Generally found near water sources - pools, creeks, cattle tanks, and others, often in rocky areas. Associated vegetation: oak woodland, willow (*Salix* sp.), coastal sage scrub, scrub oak, sparse pine, chaparral, and brushland.	**No Potential.** Drainages in the study area are too dry to support this species.
Birds			
Agelaius tricolor tricolored blackbird	None/ST SSC	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	**No Potential.** The species' associated nesting and foraging habitat is not present in the study area.

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Aimophila ruficeps canescens southern California rufous-crowned sparrow	None/None WL MHCP Covered Species	Found in open oak woodlands and dry uplands with grassy vegetation and bushes. Often found near rocky outcroppings. Also known from coastal scrublands and chaparral areas.	**Moderate Potential.** The species' associated nesting and foraging habitat is present in the study area.
Artemisiospiza belli Bell's sage sparrow	None/None WL MHCP Covered Species	Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in south of range. Nest located on the ground beneath a shrub or in a shrub 6-18 inches above ground. Territories about 50 yards apart.	**Moderate Potential.** The species' associated nesting and foraging habitat is present in the study area.
Campylorhynchus brunneicapillus sandiegensis coastal cactus wren	None/None SSC	Southern California Coastal Sage Scrub. Wrens require tall *Opuntia* sp. cactus for nesting and roosting.	**No Potential.** The species' associated nesting and foraging habitat is not present in the study area.
Charadrius alexandrinus nivosus western snowy plover	FT/None SSC MHCP Covered Species	Sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	**No Potential.** The species' associated nesting and foraging habitat is not present in the study area.
Eremophila alpestris actia California horned lark	None/None WL	Coastal regions, chiefly from Sonoma County to San Diego County. Also, main part of San Joaquin Valley and east to foothills. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	**Low Potential.** Limited potential suitable habitat is present in the study area.
Icteria virens yellow-breasted chat	None/None SSC MHCP Covered Species	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry (*Rubus* sp.), wild grape (*Vitis* sp.); forages and nests within 10 feet of ground.	**No Potential.** The species' associated nesting and foraging habitat is not present in the study area.
Passerculus sandwichensis beldingi Belding's savannah sparrow	None/SE	Inhabits coastal salt marshes, from Santa Barbara south through San Diego County. Nests in Salicornia on and about margins of tidal flats.	**No Potential.** The species' associated nesting and foraging habitat is not present in the study area.
Polioptila californica californica coastal California gnatcatcher	FT/None SSC MHCP Covered Species	Obligate, permanent resident of coastal sage scrub below 2500 ft in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	**High Potential.** Highly suitable habitat is present in the study area. No CAGNs were detected on site, but Dudek incidentally observed a CAGN pair adjacent to the project site in 2002.

Scientific Name Common Name	Status Fed/State ESA CRPR,CDFW MHCP Covered	Habitat Requirements	Potential for Occurrence/ Basis for Determination
Rallus obsoletus levipes light-footed Ridgway's rail	FE/SE FP MHCP Covered Species	Found in salt marshes traversed by tidal sloughs, where cord grass (*Spartina* sp.) and pickleweed (*Salicornia* sp.) are the dominant vegetation. Requires dense growth of either pickleweed or cordgrass for nesting or escape cover; feeds on mollusks and crustaceans.	**No Potential.** The species' associated nesting and foraging habitat is not present in the study area.
Sternula antillarum browni California least tern	FE/SE FP MHCP Covered Species	Nests along the coast from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, landfills, or paved areas.	**No Potential.** The species' associated nesting and foraging habitat is not present in the study area.
Vireo bellii pusillus least Bell's vireo	FE/SE None MHCP Covered Species	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, baccharis (*Baccharis* sp.), mesquite (*Prosopis* sp.).	**No Potential.** Suitable habitat is not present in the study area.
Mammals			
Chaetodipus californicus femoralis Dulzura pocket mouse	None/None SSC	Variety of habitats including coastal scrub, chaparral and grassland in San Diego County. Attracted to grass-chaparral edges.	**Moderate Potential.** Moderately suitable chaparral and scrub habitat in the study area.
Chaetodipus fallax northwestern San Diego pocket mouse	None/None SSC MHCP Covered Species	Found in chaparral, grasslands, scrub forests, and deserts. Major habitat requirement is the presence of low growing vegetation or rocky outcroppings, as well as sandy soil in which they dig burrows.	**Moderate Potential.** Moderately suitable chaparral and scrub habitat in the study area.
Choeronycteris mexicana Mexican long-tongued bat	None/None SSC	Occasionally found in San Diego County, which is on the periphery of their range. Feeds on nectar and pollen of night-blooming succulents. Roosts in relatively well-lit caves, and in and around buildings.	**No Potential.** The species' associated roosting habitat is not present in the study area.
Corynorhinus townsendii Townsend's big-eared bat	None/None SSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings of caves and abandoned buildings. Roosting sites limiting. Extremely sensitive to human disturbance.	**No Potential.** The species' associated roosting habitat is not present in the study area.

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Lepus californicus bennettii San Diego black-tailed jackrabbit	None/None SSC MHCP Covered Species	Intermediate canopy stages of shrub habitats and open shrub/herbaceous and tree/herbaceous edges. Coastal sage scrub habitats in Southern California.	**Moderate Potential.** Moderately suitable coastal sage scrub habitat in the study area.
Neotoma lepida intermedia San Diego desert woodrat	None/None SSC	Coastal scrub of Southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops, rocky cliffs, and slopes.	**Moderate Potential.** Moderately suitable coastal sage scrub and rocky areas are present in the study area. No middens were observed.
Nyctinomops femorosaccus pocketed free-tailed bat	None/None SSC	Variety of arid areas in Southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian, etc. Rocky areas with high cliffs.	**No Potential.** The species' associated roosting habitat is not present in the study area.
Taxidea taxus American badger	None/None SSC	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. Preys on burrowing rodents. Digs burrows.	**No Potential.** No diagnostic sign of the species (e.g., burrows or digs) were identified in the study area.
Sensitive Communities			
San Diego Mesa Claypan Vernal Pool	None/None		**No Potential.** This vegetation community is not present in the study area.
Southern Cottonwood Willow Riparian Forest	None/None		**No Potential.** This vegetation community is not present in the study area.
Southern Maritime Chaparral	None/None		**No Potential.** This vegetation community is not present in the study area.
Southern Riparian Forest	None/None		**No Potential.** This vegetation community is not present in the study area.
Southern Riparian Scrub			**Present.** A small, isolated patch of Mulefat Scrub, which falls under the Southern Riparian Scrub category, is present in the study area.
Southern Sycamore Alder Riparian Woodland	None/None		**No Potential.** This vegetation community is not present in the study area.

Scientific Name Common Name	Status Fed/State ESA CRPR,CDFW MHCP Covered	Habitat Requirements	Potential for Occurrence/ Basis for Determination
Southern Willow Scrub	None/None		**No Potential.** This vegetation community is not present in the study area.

Regional Vicinity refers to within a 5-mile radius of the study area for the CNDDB search and nine quadrangles for the CNPS search.

BCC = USFWS Bird of Conservation Concern
FC = Federal Candidate Species
FE = Federally Endangered
FP = CDFW Fully Protected
FT = Federally Threatened
SE = State Endangered
ST = State Threatened
SR = State Rare
SSC = CDFW Species of Special Concern
WL = CDFW Watch List
G-Rank/S-Rank = Global Rank and State Rank as per NatureServe and CDFW's CNDDB Rarefind 5

CRPR (CNPS California Rare Plant Rank)
1A=Presumed Extinct in California
1B=Rare, Threatened, or Endangered in California and elsewhere
2=Rare, Threatened, or Endangered in California, but more common elsewhere
3=Need more information (a Review List)
4=Plants of Limited Distribution (a Watch List)

CRPR Threat Code Extension
.1=Seriously endangered in California (> 80% of occurrences threatened/high degree and immediacy of threat)
.2=Fairly endangered in California (20-80% occurrences threatened)
.3=Not very endangered in California (<20% of occurrences threatened)