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BIOLOGICAL RESOURCES ASSESSMENT FOR THE MTD SITE (APNS 67-230-026, 59-140-004,-005,-006) 4678 CALLE REAL, SANTA BARBARA COUNTY, CALIFORNIA



Prepared for:

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EXECUTIVE SUMMARY

The following Biological Resources Assessment (Assessment) provides the results of the biological surveys, jurisdictional waters and wetlands delineation, and background investigation conducted by Storrer Environmental Services, LLC (SES), on behalf of Suzanne Elledge Planning and Permitting Services (SEPPS), for an approximately 19-acre site that is zoned for residential development (Survey Area).

The Survey Area is located at 4678 Calle Real/149 North San Antonio Road in unincorporated Santa Barbara County, California (APNs 59-140-004, 59-140-005, 59-140-006, 67-230-026). The Survey Area is an approximately 19-acre property (consisting of four contiguous parcels) that is bordered by North San Antonio Road to the east, Calle Real to the south, and existing development to the north and west.

The objectives of the Assessment were to: 1) provide a general characterization of biological resources for the property; 2) map vegetation and habitats afforded special protection by federal, state, and local policies; 3) inventory plant and wildlife species; 4) evaluate the potential for federally- or state-listed plants and animals or species afforded other special regulatory protection; and, 5) describe the property's sensitive biological resources and applicable federal, state, and local land use policies and development standards.

A formal waters and wetlands delineation, botanical surveys, and wildlife surveys were conducted in December 2017, March 2018, and April 2018 by SES botanist, Jessica Peak and biologist, Justine Cooper. The detailed results of the formal waters and wetlands delineation are presented under a separate cover in the Wetland Delineation and Jurisdictional Determination Report (SES 2018) and summarized in this Assessment. Special-status species targeted during the surveys include those that are known to occur or have the potential to occur in the vicinity of the Survey Area (e.g., southern tarplant, California red-legged frog (CRLF), Cooper's hawk, white-tailed kite, etc.). Seven vegetation communities were mapped within the Survey Area based on field observations and aerial imagery analysis: annual brome grassland, arroyo willow thicket, coast live oak woodland, western ragweed meadow, coyote brush scrub, upland mustard stand, and ornamental/landscaping plantings.

The Survey Area supports approximately 2 acres of Environmentally Sensitive Habitat (ESH) in the form of coast live oak woodland, arroyo willow thicket, and western ragweed meadow. Approximately 0.6-acre of the Survey Area is comprised of individual coast live oak trees and patches of coast live oak woodland. Arroyo willow thicket habitat occurs along an unnamed drainage that extends from the northwestern corner of the Survey Area to the south-central boundary of the Survey Area, east of the fire access road. The drainage is ephemeral (i.e., conveying flows during and/or immediately following a rain event) and supports coast live oak woodland and western ragweed meadow as well.

The ephemeral drainage in the Survey Area contains U.S Army Corps of Engineers (USACE) nonwetland Waters of the U.S., California Department of Fish and Wildlife (CDFW) Streambed, and CDFW/County of Santa Barbara-defined (one parameter) wetlands. No USACE-defined wetlands are present in the Survey Area. One special-status plant species was found in the Survey Area, southern California black walnut. Eleven southern California black walnut trees were observed and mapped during 2017 and 2018 field surveys.

No special-status wildlife species were observed in the Survey Area during the 2017 and 2018 field surveys. Special-status wildlife species that have the potential to occur in the Survey Area based on presence of suitable habitat and/or documented occurrences in the vicinity include Cooper's hawk, white-tailed kite, and San Diego desert woodrat. San Diego woodrat is considered unlikely to nest in the Survey Area, due to lack of preferred habitat.

Site development plans should be based in part on this Assessment. Upon completion of the project design, an impact analysis informed by this Assessment will be necessary in order to quantify the extent of impacts, if any, to sensitive biological resources.

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1.0 INTRODUCTION

The following Biological Resources Assessment (Assessment) provides the results of the biological surveys, jurisdictional waters and wetlands delineation, and background investigation conducted by Storrer Environmental Services, LLC (SES), on behalf of Suzanne Elledge Planning and Permitting Services (SEPPS), for an approximately 19-acre site that is zoned for residential development (Survey Area). The detailed results of the formal waters and wetlands delineation are presented under a separate cover in the Wetland Delineation and Jurisdictional Determination Report (SES 2018) and summarized in this Assessment.

The objectives of the Assessment were to: 1) provide a general characterization of biological resources for the property; 2) map vegetation and habitats afforded special protection by federal, state, and local policies; 3) inventory plant and wildlife species; 4) evaluate the potential for federally- or state-listed plants and animals or species afforded other special regulatory protection; and, 5) describe the property's sensitive biological resources and applicable federal, state, and local land use policies and development standards.

1.1 **PROJECT LOCATION AND DESCRIPTION**

The Survey Area is located at 4678 Calle Real/149 N. San Antonio Road in unincorporated Santa Barbara County, California (APNs 59-140-004, 59-140-005, 59-140-006, 67-230-026) (Figure 1 – Site Vicinity Map). The Survey Area is an approximately 19-acre property (consisting of four contiguous parcels) that is bordered by North San Antonio Road to the east, Calle Real to the south, and existing development to the north and west (Figure 2 – Survey Area Map). There is a fire access road dividing the westernmost parcel from the rest of the Survey Area to the east (Appendix A – Site Photographs).

The property is zoned for residential development as a Housing Opportunity Site. A development plan and project description for the Survey Area will be developed using this Assessment as a planning tool for avoidance and minimization of impacts to sensitive biological resources.

1.2 ENVIRONMENTAL SETTING AND BACKGROUND

The Survey Area is within the Eastern Goleta Valley Community Plan area (Plan Area) which is located on the coastal plain and foothills east of City of Goleta and west of City of Santa Barbara. The Survey Area is specifically designated as "Urban Area" in the Eastern Goleta Valley Community Plan and is situated in the coastal lowlands, but outside of the coastal zone (County 2015) (Figure 1 – Site Vicinity Map).

The terrain is relatively flat to moderately sloped, with a short, steep berm running parallel to North San Antonio Road along the eastern perimeter. The elevation reaches approximately 100 feet above sea level at the highest points in the northeastern and southwestern corners. Stormwater runoff from North San Antonio Road sheet flows down the berm into a small swale in the southeastern portion of the Survey Area. An unnamed ephemeral drainage runs from the northwestern corner to the south-central boundary of the Survey Area, east of the fire access road (Figure 2 – Survey Area Map).

The Goleta region experiences a Mediterranean climate, with mild, moist winters and warm, dry summers. A heavy marine layer or fog is often present in late spring and early summer mornings.

Temperatures at the Survey Area are relatively mild, with an average maximum temperature of 75 degrees Fahrenheit (F) in August and September and an average minimum temperature of 40 degrees (F) in December and January (WRCC 2018). Average annual precipitation is 16.34 inches, with the majority of that falling between October and April.

The Survey Area has historically been used as farmland for row crops and there is a degraded paved driveway in the southeastern quarter of the property that leads to an old, razed house site (County 2015, Appendix A – Site Photographs). The Survey Area is now surrounded by residential development and is mowed periodically, as it is no longer used for agricultural purposes (Appendix A – Site Photographs).

2.0 **REGULATORY FRAMEWORK**

Sensitive biological resources including special-status plant and wildlife species, sensitive plant communities, wildlife corridors, nesting birds, and jurisdictional waters and wetlands, may be protected under various federal, state, and local laws, regulations, and land use policies. The following sections summarize the regulations and policies administered by resource agencies pertaining to biological resources that are known to occur or have the potential to occur at the Survey Area.

2.1 FEDERAL REGULATIONS

2.1.1 Endangered Species Act (16 U.S.C. § 1531 et seq.)

The Endangered Species Act of 1973 (ESA) provides for the protection of plant and animal species listed by the federal government as "endangered" or "threatened," and "the ecosystems upon which they depend." The USFWS and National Marine Fisheries Service (NMFS) share responsibility for administration of the federal ESA. An "endangered" species is one that is "in danger of extinction" throughout all or a significant portion of its range. A "threatened" species is one that is "likely to become endangered" within the foreseeable future. The ESA prohibits "take" of threatened or endangered species except under certain circumstances and only with authorization from the USFWS. "Take" as defined by the ESA, "means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." This can also include the modification of a species' habitat. For plants, this statute governs removing, possessing, maliciously damaging, or destroying any listed plant on federal land and removing, cutting, digging up, damaging, or destroying any listed plant on non-federal land in knowing violation of state law (16 U.S.C. § 1538(c)).

When non-federal entities, such as states, counties, local governments, and private landowners, wish to conduct an otherwise lawful activity that might incidentally, but not intentionally, "take" a listed species, an incidental take permit must first be obtained via formal consultation with the USFWS using one of two methods. If a federal nexus is not available, an incidental take permit (ITP) must be obtained for the project following formal consultation with the USFWS via Section 10 of the ESA (ESA § 10(a)(1)(B)).

If a federal nexus is available, then an incidental take permit may be obtained by the federal agency involved in the nexus (e.g., USACE) via Section 7 of the ESA (ESA § 7). Section 7 stipulates that any federal agency action that may affect a species listed as threatened or endangered requires a formal consultation with USFWS to ensure that the action is not likely to jeopardize the continued

existence of the listed species or result in destruction or adverse modification of designated critical habitat (16 U.S.C. 1536(a)(2)). The Biological Opinion issued by the USFWS at the conclusion of the consultation may include authorization for incidental take of a listed species.

2.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MTBA) of 1918 (16 USC 703-711) is also administered by the USFWS. The MTBA provides protection of nearly all species of birds, their nests, and their eggs, including all native bird species. Under the MTBA, it is it is unlawful to "take", kill, collect, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR 10, including feathers or other parts, nests, eggs or products, except as allowed by implementing regulations (50 CFR 21). Certain game bird species are allowed to be hunted for specific periods determined by federal and state governments.

2.1.3 Clean Water Act – Section 404

The Clean Water Act (CWA) is comprehensive legislation established to protect the nation's water from pollution by setting water quality standards and by limiting the discharge of effluents in the waters of the United States. Section 404 of the CWA regulates the discharge of dredged and/or fill material into waters of the U.S., including wetlands. Section 404 of the CWA is jointly administered and enforced by the U.S. Army Corps of Engineers (USACE) and the U.S. Environmental Protection Agency (EPA). Activities in waters of the U.S. regulated under Section 404 include dredge or fill for development, water resources projects (i.e., dams and levees), infrastructure development (i.e., highways and airports), and mining projects. With the exception of certain farming and forestry activities that are exempt from Section 404 regulation, a Section 404 permit is required before any dredged or fill material may be discharged into waters of the U.S. would be significantly degraded or a practical alternative exists that is less damaging to the aquatic environment.

2.1.3.1 Waters of the U.S.

The limit of USACE's jurisdiction in non-tidal waters extends to the ordinary high water mark (OHWM) and includes all adjacent wetlands.

Waters of the U.S. are defined as:

"All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; including all interstate waters including interstate wetlands, all other waters such as intrastate lakes, rivers, streams, mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce."

U.S. Supreme Court decisions (i.e., Solid Waste Agency of Northern Cook County [SWANCC] v. USACE [531 U.S. 159, 2001] January 9, 2001 and Rapanos *et ux., et al.* v. United States, June 19, 2006) have led to the development of federal guidance that requires a careful examination and documentation of the physical location(s) and hydrologic connections among waters and wetlands.

To determine federal jurisdiction, particular focus is given to (1) surface hydrologic connections between a wetland and "navigable waters in fact," (2) "adjacency" of a wetland to traditionally navigable waters, and thus (3) a "significant nexus" to interstate commerce. In addition, waters and wetlands features can be determined to be under federal jurisdiction by the USACE if a "significant nexus" can be shown between the wetland feature in question and its contribution to the maintenance or restoration of the physical, chemical, or biological integrity of downstream waters that are traditionally navigable.

2.1.3.2 USACE Jurisdictional Wetlands

Wetlands subject to Section 404 of the CWA are defined as:

"...those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

The *Corps of Engineers Wetland Delineation Manual* (1987 Manual) (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (Arid West Supplement) (Environmental Laboratory 2008) provide technical guidance for identifying and delineating wetlands that may be subject to regulatory jurisdiction. The Arid West Supplement provides wetland indicators and additional guidance for delineation specific to the southwestern U.S. The delineation methods outlined in the 1987 Manual and the Arid West Supplement are based on a three-factor approach involving indicators of hydrophytic vegetation, hydric soil, and wetland hydrology. The USACE requires that a positive wetland indicator be present for all three parameters. Wetland indictors are described in further detail below.

<u>Hydrophytic Vegetation</u>. Hydrophytic plant species are those that can tolerate prolonged inundation or soil saturation during the growing season. The hydrophytic vegetation indicator is considered to be present when 50 percent or greater of the dominant plant species within the sample plot are classified as Obligate, Facultative Wetland, or Facultative according to the National Wetland Plant List (Lichvar et al. 2014, USACE 2018). The hydrophytic vegetation indicator can also be determined using the "Prevalence Index" when hydric soils and wetland hydrology are present but vegetation fails to meet the "Dominance Test".

<u>Hydric Soils</u>. Hydric soils are defined as soils "that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part" (Federal Register 1994). The technical criteria can be satisfied using a combination of published soils information and field indicators. Field indicators for determining whether a soil satisfies the hydric soil definition and the technical criteria for hydric soils are listed in the *Field Indicators of Hydric Soils in the United States* (USDA-NRCS 2010).

<u>Wetland Hydrology</u>. Wetland hydrology can be determined by evaluating a variety of direct and indirect field indicators. Direct indicators include aerial photography, stream gauge or well data, and historic records pertaining to the region. Indirect field indicators include, but are not limited to visual observation of inundation and/or saturation, sediment deposition, drainage patterns in

wetlands, hydric soil characteristics, watermarks, drift lines, oxidized channels (i.e., rhizospheres) associated with living roots and rhizomes, and water stained leaves (Environmental Laboratory 1987). The Arid West Supplement provides a technical standard for wetland hydrology that requires 14 or more consecutive days of flooding or ponding, or a water table 12 inches or less below the soil surface, during the growing season at a minimum frequency of 5 years in 10 (Environmental Laboratory 2008).

2.2 STATE REGULATIONS

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

Fish and wildlife resources are protected by a number of laws and programs administered by the CDFW, formerly the California Department of Fish and Game. The California Endangered Species Act (CESA) generally parallels the provisions of the federal ESA, and states that "all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation, will be protected or preserved."

Under the CESA, "endangered" is defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range;" and "threatened" is defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts." "Take" is defined as "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" an individual of a species, but the definition does not include "harm" or "harass," as the ESA does. As a result, the threshold for a take under the CESA is higher than that under the federal ESA. Exceptions to the take prohibition are limited to authorization of collection for "necessary scientific research".

Consistent with the CESA, CDFW has established lists of endangered, threatened, and candidate species that may or may not be included on a federal ESA list. CDFW also maintains a list of Species of Special Concern for those species that have declining populations, limited distribution, diminishing habitat, or unusual scientific, educational, or recreational value. In addition, CDFW manages a "watch list" of species that have been de-listed or are vulnerable. Species of Special concern and watch list species are not afforded the same legal protection as listed species.

Pursuant to California Fish and Game Code Section 2081, CESA allows for incidental take permits to otherwise lawful development projects that could result in the take of a state-listed threatened or endangered species. The application for an incidental take permit under Section 2081(b) has a number of requirements including the preparation of a conservation plan, generally referred to as a Habitat Conservation Plan. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate mitigation planning to offset project-caused losses of listed species.

2.2.2 Native Plant Protection Act (California Fish and Game Code §§ 1900 - 1913, § 2062 and § 2067)

The CDFW also manages the California Native Plant Protection Act (NPPA), which designates and protects species eligible for state listing. Eligible species include those identified on California

Native Plant Society (CNPS) Rare Plant Ranks (CRPRs) 1A, 1B, and 2 meet the definitions of Sections 1901, Chapter 10 (NPPA) or Sections 2062 and 2067 (CESA) of the California Fish and Game Code. CRPR 3 and 4 species, though not meeting the criteria for listing by CDFW, may be considered during project review by the agencies.

2.2.3 Clean Water Act – Section 401

The CWA Section 401 Water Quality Certification (Section 401 Certification) provides states and authorized tribes an opportunity to address the aquatic resource impacts of federally issued permits and licenses, to help protect water quality. Under Section 401 of the CWA, any applicant for a federal license or permit to conduct any activity that may result in any discharge into waters of the U.S. must obtain a Section 401 Certification from the State Water Resources Control Board (SWRCB) that the proposed activity will comply with state water quality standards. In California, Section 401 Certifications are issued by Regional Water Quality Control Boards (RWQCB) located throughout the state. The Central Coast RWQCB issues Section 401 Certifications for projects in the County. The federal CWA Section 404 permit is dependent on and subject to the terms of the Section 401 Certification. Therefore, under Section 401, a federal agency cannot issue a permit or license for an activity that may result in discharge into waters of the U.S. until the RWQCB has granted or waived the Section 401 Certification. Section 401 Certification is limited to federally jurisdictional waters and wetlands.

2.2.4 Lake and Streambed Alteration Program (California Fish and Game Code (California Fish and Game Code §1600-1616)

Under Sections 1600-1616 of the California Fish and Game Code, the CDFW regulates all activity that may substantially divert or obstruct the natural flow of any river, stream, or lake; change or use any material from the bed, channel or bank of any river, stream, or lake; or, deposit debris, waste or other materials that could pass into any river, stream or lake. Notification of Lake or Streambed Alteration must be submitted to CDFW for such activities. CDFW defines a stream as:

"...a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation."

CDFW jurisdiction typically includes all portions of the bed, banks, and channel of a stream, including intermittent and ephemeral streams, and extends outward to the upland edge of the riparian vegetation.

2.2.5 California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) requires an evaluation of a project's potentially significant impacts on biological resources and ways that such impacts can be avoided, minimized, or mitigated. CEQA also provides thresholds and guidelines for use by lead agencies to assess the significance of proposed impacts.

Section 15065 of the act states that a lead agency shall find that a project may have a significant effect on the environment, and thereby require an Environmental Impact Report to be prepared for

the project, where the project has the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal.

CEQA states that a project will normally have a significant effect on the environment if it will:

"(a) Conflict with adopted environmental plans and goals of the community where it is located; (b) Substantially affect a rare or endangered species of animal, plant or the habitat of the species; (c) Interfere substantially with the movement of any resident or migratory fish or wildlife species; and (d) Substantially diminish habitat for fish, wildlife or plants" (County P&D 2008).

2.2.6 State of California Senate Bill 1334

State of California Senate Bill 1334 includes regulations specific to oak tree protection (Public Resources Code Section 21083.4). Senate Bill 1334 requires that oak woodland conversions be subject to CEQA and mitigated and that oak woodlands be conserved through the use of conservation easements. Pursuant to Senate Bill 1334, a County shall determine whether a project may result in a conversion of oak woodlands that will have a significant effect on the environment.

Senate Bill 1334 defines "oak" as a "native tree species in the genus *Quercus*, not designated as Group A or Group B commercial species pursuant to regulations adopted by the State Board of Forestry and Fire Protection pursuant to Section 4526, and that is 5 inches or more in diameter at breast height."

2.3 LOCAL LAND USE POLICIES

Requirements for the protection of biological resources in the unincorporated areas of the County, applicable to the Survey Area, are provided in the Comprehensive Plan Conservation Element, Environmental Resource Management Element, Land Use Element, the County Code, and the Eastern Goleta Valley Community Plan. These Plans/Elements provide a framework of policies designed to protect special-status species and sensitive habitat areas.

2.3.1 Environmental Thresholds and Guidelines Manual

The Environmental Thresholds and Guidelines Manual (County 2008) provides definitions of sensitive biological resources and guidance for determining levels of impacts to sensitive areas, including appropriate methods for avoidance, minimization, and/or mitigation.

Disturbance to habitats or species may be considered significant by the County if a project substantially impacts sensitive resources in the following ways:

- 1) Substantially reduce or eliminate species diversity or abundance.
- 2) Substantially reduce or eliminate quantity or quality of nesting areas.
- 3) Substantially limit reproductive capacity through losses of individuals or habitat.
- 4) Substantially fragment, eliminate, or otherwise disrupt foraging areas and/or access to food sources.

- 5) Substantially limit or fragment range and movement (geographic distribution or animals and/or seed dispersal routes).
- 6) Substantially interfere with natural processes, such as fire or flooding, upon which the habitat depends.

Examples of less than significant impacts, where the habitat is given little or no importance and it is presumed that disturbance would not create a significant impact include:

- 1) Small acreages of non-native grassland if wildlife values are low.
- 2) Individuals or stands of non-native trees if not used by important animal species such as raptors or monarch butterflies.
- 3) Areas of historical disturbance such as intensive agriculture.
- 4) Small pockets of habitats already significantly fragmented or isolated, and degraded or disturbed.
- 5) Areas of primarily ruderal species resulting from pre-existing man-made disturbance.

2.3.2 Oak Tree Protection

As described in the Comprehensive Plan Conservation Element Oak Tree Protection in the Inland Rural Areas of Santa Barbara County, Development Standard 1 (2009), the following applies for the protection of all species of mature oak trees:

"All development shall avoid removal of or damage to mature oak trees, to the maximum extent feasible. Mature oak trees are considered to be live oak trees six inches or greater diameter at breast height and blue oak trees four inches or greater diameter at breast height, or live and blue oaks six feet or greater in height. Native oak trees that cannot be avoided shall be replanted on site. When replanting oak trees on site is not feasible, replanting shall occur on receiver sites known to be capable of supporting the particular oak tree species, and in areas contiguous with existing woodlands or savannas where the removed species occurs. Replanting shall conform to the County's Standard Conditions and Mitigation Measures. (This development standard applies to oak trees other than valley oaks, valley oak trees are address in separate Development Standards.)"

The County's Standard Conditions and Mitigation Measures (County 2011) require that grading, trenching, ground disturbance, construction activities and structural development occur beyond six feet of the dripline of all oak trees. Mitigation for impacted oak trees requires posting of a performance security and tree replacement at a 10:1 ratio, preferably on-site.

2.3.3 Native Grasslands

Per the County Environmental Thresholds and Guidelines Manual (County 2008), native grassland habitat is defined as an area where native grassland species comprise 10 percent or more of the total relative plant cover. However, isolated patches of native grasses less than one-quarter acre are usually considered insignificant.

2.3.4 Stream and Riparian Habitat Protection

The Environmental Thresholds and Guidelines Manual (County 2008) defines riparian habitat as the "terrestrial or upland area adjacent to freshwater bodies, such as the banks of creeks and streams, the shores of lakes and ponds, and aquifers which emerge at the surface as springs or seeps. This habitat can also occur along arroyos and barrancas, and other types of drainages throughout the County".

County-prescribed setbacks (i.e., buffer areas) from the outer (upland) edge of the riparian canopy, or the top-of-bank of the water body in the absence of riparian vegetation, are 100 feet in rural areas and 50 feet in urban areas. Intrusion within the buffer areas for riparian habitats and streams may be considered significant.

2.3.5 Santa Barbara County Wetland Definition

For the purpose of determining potentially significant effect to wetland habitat, the County Board of Supervisors has formally adopted the USFWS/CDFW-wetland definition (Cowardin et al. 1979). Per the County Environmental Thresholds and Guidelines Manual (County 2008), the County wetland definition is as follows:

"For purposes of this classification wetlands must have one or more of the following three attributes:

- 1) At least periodically, the land supports predominantly hydrophytes, that is, plants adapted to moist areas;
- 2) The substrate is predominantly un-drained hydric soil; and
- 3) The substrate is non soil and is saturated with water or covered by shallow water at some time during the growing season of each year."

2.3.6 County Fuel Modification Requirements

The Santa Barbara County Fire Department (SBCFD) requires that a defensible space of 100 feet minimum around all buildings and structures be maintained for the life of the property. A defensible space consists of two zones (0 - 30 feet and an additional 70 feet totaling 100 feet minimum) from all buildings or structures (SBCFD 2010).

Requirements within the 30-foot (Zone 1) and 100-foot (Zone 2) Fuel Modification Zones are described as follows:

- 1) In the 30 foot zone (Zone 1) or to the property line, whichever is nearer, all vegetation must be well maintained. No flammable vegetation shall exist in Zone 1. Large trees may occupy the zone if they are trimmed, well maintained and free of diseased, dead or dying material.
- 2) In the 70 foot zone (Zone 2) or to the property line, whichever is nearer, flammable vegetation shall be spaced as to reduce plant-to-plant, plant-to-tree, and tree-to-tree transfer of fire both vertically and horizontally.
- 3) Horizontal clearance will depend on height of plants and steepness of slope. Large trees may remain in this zone if the vegetation below each tree meets the minimum vertical clearance calculation.

2.3.7 Eastern Goleta Valley Community Plan

The Eastern Goleta Valley Community Plan (EGVCP) policies are intended to maintain the ecological continuity of habitats and watershed systems to the maximum extent feasible (County 2015). Environmentally Sensitive Habitat (ESH) areas and riparian corridors are identified and protected through policies that balance the preservation of natural resources with land use needs and hazard mitigation. The EGVCP is intended to protect habitat and maintain the continuity of wildlife corridors by restricting development to infill of the existing Urban Area. Within the Urban Area, infill development is prioritized in the core of the community and away from coastal areas to protect coastal habitat resources. Additionally, the policy framework protects specific habitat types, including the ESH and riparian corridors, from the impacts of development on a case-by-case basis. Measures such as development setbacks, green infrastructure, and requirements for habitat restoration provide protection of biological resources. Collectively, the planning objectives for Eastern Goleta Valley's natural environment are to preserve the existing resources and enhance their values whenever possible (County 2015). The EGVCP policies that are applicable to the Survey Area are listed below.

2.3.7.1 Hydrology Policies

Policy HYD-ENV-1.1: Introduction of contaminated urban and agricultural runoff into all coastal waters, including sloughs, rivers, streams, coastal wetlands and intertidal areas, shall be eliminated or minimized.

Policy HYD-ENV-1.2: Untreated outfalls should avoid or be relocated out of Environmentally Sensitive Habitat and riparian areas.

2.3.7.2 Ecological and Biological Resources Policies

Policy ECO-ENV-1.1: The County shall designate and provide protection to important or sensitive environmental resources and habitats in Eastern Goleta Valley.

Policy ECO-ENV-1.2: The County shall adhere to and incorporate the following priorities for the protection of ecological and biological resources:

- Preservation and/or enhancement of existing natural resources.
- Maintenance of habitat continuity and wildlife corridors.
- Establishment, enlargement, and restoration of ecological preserves and wildlife corridors.
- Long-term protection of regional ecosystems.
- Protection and/or enhancement of critical habitats for endangered, threatened, and sensitive biota.
- Enhancement or restoration of degraded habitats, including active removal and management of invasive non-native species.
- Active management of preserves, open space and/or conservation easements.
- Active management of natural areas to diminish fire hazard while sustaining natural resources and values, such as habitat areas and hydrologic function, through management of fuel loads or other appropriate measures.

• Land use and development patterns that minimize or alleviate the impact to the natural environment and improve Eastern Goleta Valley's urban ecology.

Policy ECO-EGV-2.1: Open space and conservation easements should be considered effective methods to preserve important biological resources and habitats.

Policy ECO-EGV-2.2: The use of native, drought-tolerant, and/or fire-resistant plants shall be strongly encouraged in landscaping and restoration projects, especially in parks, buffers adjacent to native habitats and in designated open space.

Policy ECO-EGV-2.3: Where sensitive plant species and sensitive animal species are found pursuant to the review of a discretionary project, the habitat in which the sensitive species is located shall be preserved to the maximum extent feasible. For the purposes of this policy, sensitive plant species are those species that appear on the County's list of locally rare, generally rare, or endangered plants, and the California Native Plant Society's Inventory of Endangered Vascular Plants of California. Sensitive animal species are defined as those animal species identified by the California Department of Fish and Wildlife, the U.S. Fish and Wildlife Service and/or are listed in Tate's The Audubon Blue List (birds).

Policy ECO-EGV-2.4: Where sites proposed for development contain sensitive or important habitats and areas to be preserved over the long-term, degradation of these habitats shall be avoided to the maximum extent feasible, and demonstrated unavoidable impacts minimized as a component of a project, including, but not limited to, one or more of the following conditions:

- Dedication of onsite open space easements covering habitat areas.
- Onsite habitat restoration programs utilizing appropriate native, drought-tolerant, and/or fire-resistant species.
- Monetary contributions toward habitat acquisition and management.
- Offsite easement and/or restoration of comparable habitat/area when onsite preservation is infeasible.

Policy ECO-EGV-2.5 – Restoration: In cases where adverse impacts to biological resources cannot be avoided after impacts have been minimized, restoration shall be required. A minimum replacement ratio of 2:1 shall be required to compensate for the destruction of native habitat areas or biological resources. The area or units to be restored, acquired, or dedicated for a permanent protective easement shall be twice the biological value of that which is destroyed. Restoration may also be required for parcels on which development is proposed and on which disturbance has previously occurred if the currently proposed development would exacerbate the existing impact. Where onsite restoration is infeasible or not beneficial with regard to long-term preservation of habitat, an offsite easement and/or restoration which provides adequate quality and quantity of habitat and will ensure long-term preservation shall be required.

Policy ECO-EGV-2.6: The County shall ensure the following requirements for any restoration efforts are considered and incorporated into the restoration plan:

• Restoration shall include the appropriate diversity and density of plants native to the locality and shall be propagated from local genetic stock (preferably collected from the

site's watershed if feasible, or between Gaviota and Carpinteria, or as determined satisfactory by a qualified biologist).

- Restoration shall incorporate maintenance and monitoring measures to ensure that the remedial action is mitigating permanent remedy of the impact of development.
- When restoration is required, on-site rather than off-site restoration shall be preferred.

Policy ECO-EGV-3.1: Habitats that shall be preserved and enhanced include, but are not limited to:

- Creeks, streams, and waterways, and fish passage.
- Wetlands and vernal pools.
- Riparian vegetation.
- Wildlife corridors between habitat areas.
- Roosting, nesting, and foraging habitat for bird species.

Policy ECO-EGV-3.2: Ecological communities and habitats shall not be fragmented into small non-viable pocket areas by development.

Policy ECO-EGV-3.3: In rural areas and where major wildlife corridors are present in urban areas, development shall not interrupt major wildlife travel corridors within Eastern Goleta Valley. Typical wildlife corridors are provided by drainage courses and similar undeveloped natural areas.

Policy ECO-EGV-4.1 – Protecting Existing Trees: Existing trees in Eastern Goleta Valley shall be preserved to the maximum extent feasible, prioritizing "protected trees." Protected trees are defined for the purposes of this policy as mature native, naturalized, or roosting/nesting trees that are healthy, structurally sound, and have grown into the natural stature particular to the species. Protected trees include, but are not limited to:

- Oaks (*Quercus agrifolia*).
- Sycamores (*Platanus racemosa*).
- Willow (*Salix* sp.).
- Redwoods (Sequoia sempervirens).
- Maples (*Acer macrophyllum*).
- California Bay Laurels (Umbellularia californica).
- Cottonwood (Populus fremontii & Populus balsimifera).
- White Alder (*Alnus rhombifolia*).
- Southern California Black Walnut (*Juglans californica*)
- Any trees serving as known raptor nesting or key raptor roosting sites.
- Any trees serving as Monarch Butterfly aggregation sites.

Policy ECO-EGV-4.2: All existing "protected trees" shall be protected from damage or removal, except in cases where preservation of trees would preclude reasonable use of a parcel, or threaten life and/or property.

Policy ECO-EGV-4.3 – Trees on County-owned Property in the Urban Forest: The County shall integrate the planting and cultivation of native trees as green infrastructure into capital improvement programming to reforest County-owned lands in Eastern Goleta Valley.

Policy ECO-EGV-4.4 – Trees on Non County-owned Property in the Urban Forest: Planting and cultivation of native trees to reforest privately-owned lands shall be encouraged. Landscaping plans for development shall be encouraged to include planting and cultivation of native trees in the Urban Area.

Policy ECO-EGV-5.1: Environmentally Sensitive Habitat (ESH) areas and Riparian Corridors (RC) within Eastern Goleta Valley shall be protected and, where feasible and appropriate, enhanced.

Policy ECO-EGV-5.2: The following general criteria are utilized to determine which resources and habitats in Eastern Goleta Valley are identified as ESH. Significant habitat resources within urban, Existing Developed Rural Neighborhoods (EDRNs) and Mountainous Areas that meet one or more of these criteria shall have coverage of the ESH overlay.

- 1) Unique, rare, or fragile communities which should be preserved to ensure their survival into perpetuity.
- 2) Habitats of rare and endangered species that are also protected by State and Federal laws.
- 3) Plant communities that are of significant interest because of extensions of ranges, or unusual hybrid, disjunctive, or relict species.
- 4) Specialized wildlife habitats which are vital to species survival, e.g., white-tailed kite habitat, butterfly trees.
- 5) Outstanding representative natural communities that have values ranging from a particularly rich flora and fauna to an unusual diversity of species.
- 6) Areas which are important because of their high biological productivity and ecological function such as wetlands and vernal pools.
- 7) Areas which are structurally important in protecting watershed ecology and species, e.g., riparian corridors that protect stream banks from erosion and provide shade.

Policy ECO-EGV-5.4 – ESH and RC Habitat Types: Specific biological resources and habitats shall be considered environmentally sensitive and designated on the Eastern Goleta Valley Community Plan ESH/Riparian Corridor map (EGVCP Figure 22 or where determined to exist during a site survey) based on the criteria of Policy ECO-EGV-5.2.

- 1) <u>ESH Habitat Types</u>: In the Urban, Inner-Rural, EDRNs and Mountainous Areas, the following habitats shall be considered environmentally sensitive and shall be protected and preserved through provisions of the ESH Overlay.
 - Riparian woodlands and riparian corridors (including but not limited to willow, riparian mixed hardwood, California sycamore, and riparian mixed shrub alliances).
 - Monarch butterfly roosts
 - Sensitive native flora
 - Coastal sage scrub (including but not limited to California sagebrush and soft scrub – mixed chaparral alliances) coastal bluff scrub

- Chaparral (e.g., chamise chaparral, lower montane mixed chaparral, ceanothus chaparral, and soft scrub mixed chaparral alliances) where it supports rare or vulnerable native vegetation alliances and/or sensitive native plant and/or animal species
- Oak woodlands (including but not limited to coast live oak and coastal mixed hardwood alliances)
- Bigcone Douglas-fir alliance
- Vernal Pools
- Native grasslands (including but not limited to perennial grasses and forbs alliance)
- Wetlands (including but not limited to tule-cattail alliance)
- Dunes
- Raptor/turkey vulture roosts
- Critical wildlife habitat
- Wildlife corridors

Policy ECO-EGV-5.5 – Minimum Buffer Areas for ESH: The minimum buffer strip and setbacks from streams and creeks for development and activities within the ESH overlay that are regulated by the County Zoning Ordinances shall be as follows, except on parcels designated for agriculture in rural areas where Policy ECO-EGV-5.6 shall apply:

• *ESH areas within the Urban Area and EDRNs*: A minimum setback of 50 feet from either side of top-of-bank of creeks or existing edge of riparian vegetation, whichever is further, shall be indicated on all site plans. Plans shall minimize ground disturbance and vegetation removal.

2.3.7.3 Specific Habitat Area Protection Policies

Policy ECO-EGV-6.1: Native woodlands, native grasslands, and coastal sage scrub shall be preserved and protected as viable and contiguous habitat areas.

Policy ECO-EGV-6.3: Riparian vegetation shall be protected and shall not be removed except where clearing is necessary for the maintenance of free-flowing channel conditions, the removal of invasive exotic species, the provision of essential public services, or where protection would preclude the reasonable use of a parcel. Degraded riparian areas shall be restored.

Policy ECO-EGV-6.4: Natural stream channels and conditions shall be maintained in an undisturbed state in order to protect banks from erosion, enhance wildlife passageways, and provide natural greenbelts.

3.0 METHODS

To document sensitive biological resources within the Survey Area, SES conducted background research, review of previous botanical and biological assessments completed in the region, and field investigations.

3.1 LITERATURE REVIEW

Prior to conducting the field reconnaissance, a literature review was performed to identify any special-status plant and wildlife species and sensitive natural communities that have the potential to occur in the Survey Area and vicinity. The literature review included an examination of the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2017), the CDFW's California Natural Diversity Database (CNDDB 2017), the USFWS Endangered Species Database (USFWS 2017a), and the USFWS critical habitat portal (USFWS 2017b). SES also reviewed the NRCS Web Soil Survey of Santa Barbara County, California, South Coastal Santa Barbara Area (NRCS 2018), the USGS CA 7.5-minute quadrangle maps, the National Hydrography Dataset (NHD) (USGS-NHD 2017), and weather data.

The CNDDB query provided locations of special-status plant populations, sensitive natural communities, and special-status wildlife documented within the Dos Pueblos Canyon, Goleta, and Santa Barbara USGS CA 7.5-minute quadrangles. The CNDDB search included the Goleta quadrangle, where the Survey Area is located, and adjacent coastal quadrangles in order to evaluate the potential for special-status plant and wildlife species documented in the region. Special-status species known to occur in the vicinity of the Survey Area are depicted in Figures 3 and 4 – CNDDB Plant and Wildlife Occurrences. The likelihood for special-status species to occur within the habitats present in the Survey Area was also evaluated (see Table 2).

3.2 FIELD METHODOLOGY

Biological field investigations included floristic surveys, wildlife surveys, and a jurisdictional waters and wetlands delineation. Table 1 provides a summary of survey dates, descriptions, and field personnel.

Type of Survey(s)	Date	Field Personnel
Field Reconnaissance	December 19, 2017	Jessica Peak Justine Cooper
Post-rain Inspection of Drainage	January 8, 2018	Jessica Peak
Waters/Wetland Delineation	March 23, 2018	Jessica Peak
Waters/Wetland Delineation Nesting Bird Survey Early-season Botanical Survey	March 27, 2018	Jessica Peak Justine Cooper
Waters/Wetland Delineation Nesting Bird Survey Spring Botanical Survey	April 18, 2018	Jessica Peak Justine Cooper

 Table 1. Biological Surveys Conducted within the Survey Area in 2017-2018

Special-status species that are known to occur or have the potential to occur in the vicinity of the Survey Area were targeted during the field surveys (e.g., Santa Barbara honeysuckle, southern tarplant, black-flowered figwort, Ojai fritillary, Cooper's hawk, white-tailed kite, etc.) (Table 2).

3.2.1 Botanical Surveys

Surveys were consistent with the botanical survey guidelines of the California Department of Fish and Game (now CDFW) (2009), the USFWS (1996), and the CNPS (2001). The botanical inventory was compiled by systematically searching the Survey Area. Special-status plant species were mapped using a handheld Garmin GPSmap 60CSx Global Positioning System (GPS) unit and/or an iPad tablet with ArcCollector and a SkyPro XGPS160 GPS receiver.

All vascular plant species observed within the Survey Area were recorded (see Appendix B – Vascular Plant Inventory). Plant specimens that were not positively identified in the field were further examined using a dissecting microscope and appropriate botanical keys, including *The Jepson Manual, Second Edition* (Baldwin et al. 2012) and *A Flora of the Santa Barbara Region, California, Second Edition* (Smith 1998). The field surveys also documented all sensitive vegetation communities (e.g., oak woodland, arroyo willow thicket, and western ragweed meadow) present within the Survey Area.

Botanical surveys took place during the typical blooming season (i.e., spring) for the majority of the annual and/or biannual special-status plant species that have the potential to occur in the Survey Area (see Table 2). Reference populations for southern tarplant and late-flowering mariposa lily, which typically bloom in June and July, respectively, were visited prior to the spring botanical survey on April 18, 2018 to confirm that those species would be detectable.

3.2.2 Wildlife Surveys

During biological surveys, a general evaluation of the character and quality of wildlife habitat was made and an inventory of all wildlife species observed within the Survey Area was compiled (see Appendix C – Wildlife Inventory). The unnamed ephemeral drainage did not sustain surface water for more than 48 hours during the 2017-2018 rainy season; therefore, aquatic surveys were not performed as part of the Assessment.

The evaluation of wildlife use of the property was made in part through field surveys, but was also based on habitat suitability within the Survey Area and known occurrence of various species in the site vicinity. Habitat conditions and current status of special-status wildlife species, including San Diego desert woodrat (*Neotoma lepida intermedia*), were a particular focus of the wildlife surveys. Potential for nesting, roosting, or foraging by sensitive bird species, including Cooper's hawk (*Accipiter cooperii*) and various other raptors was also assessed.

3.2.3 Delineation of Waters of the U.S., Including Wetlands

3.2.3.1 Waters of the U.S.

Pursuant to Section 401 of the CWA, the limit of USACE jurisdiction in non-tidal waters extends to the OHWM and includes all adjacent wetlands. The OHWM is an element used to identify the lateral limits of non-wetland waters based on stream geomorphology and vegetation response to the dominant stream discharge (Lichvar and McColley 2008). The OHWM was established along drainages in the Survey Area using debris racking and drainage patterns as a boundary. The width of the channel at the OHWM was mapped by using an iPad tablet with ArcCollector and a SkyPro XGPS160 Global Positioning System (GPS) receiver and jurisdictional acreages were calculated using aerial imagery and ArcGIS.

SES adhered to existing federal guidance for determination of federal jurisdiction in waters and wetlands in the Survey Area. To start, we recognized that the drainage is ephemeral and only holds water during and following rain events, and as a result of runoff from the residential neighborhood to the north. Consequently, the drainage is infrequently connected to Atascadero Creek (via Hospital Creek) downstream of the Survey Area, which discharges into the "traditionally navigable waters" of the Pacific Ocean.

3.2.3.2 Federal Wetlands

Delineation of the USACE-jurisdictional wetlands within the Survey Area was consistent with "Routine" procedures detailed in the 1987 Manual (Environmental Laboratory 1987) and the Arid West Supplement (Environmental Laboratory 2008).

The extent of the wetland features was determined by topographic changes in the terrain, presence of hydrophytic plant species, and the limits of drift deposits or drainage patterns. Soil test pits were excavated throughout the drainage to confirm the presence/absence of hydric soils. The soil test pits (sampling points) and jurisdictional limits were mapped by using an iPad tablet with ArcCollector and a SkyPro XGPS160 GPS receiver. The radius of sample plots was 20 feet around the soil pit excavated at each sampling point. USACE-jurisdictional wetlands were determined to be present if evidence of all three federal criteria were observed (hydrophytic vegetation, hydric soils, and wetland hydrology). Federal wetland criteria are described in detail in the Wetland Delineation and Jurisdictional Determination Report (SES 2018), provided under a separate cover.

3.2.3.3 CDFW Jurisdictional Streambeds and Wetlands

Pursuant to Section 1600 *et seq.* of the California Fish and Game code, the extent of CDFW jurisdiction along the drainage was determined based on presence of a defined physical bed, bank, and channel. The extent of CDFW-defined one parameter wetlands corresponds to County wetlands discussed below. The approximate length, width, and jurisdictional acreages were calculated using aerial imagery and ArcGIS.

3.2.3.4 County Wetlands

The extent of County wetlands was determined concurrently with field delineation of federal wetlands. As defined by the *Environmental Thresholds and Guidelines Manual* (County 2008), County wetlands were determined to be present if evidence of one of the three federal wetland criteria were observed (hydrophytic vegetation, hydric soils, or wetland hydrology). The extent of County wetlands was determined in the field by drift deposits and drainage patterns. The limits of County wetlands were mapped by using an iPad tablet with ArcCollector and a SkyPro XGPS160 GPS receiver. Approximate jurisdictional acreages were calculated using ArcGIS.

4.0 **RESULTS**

The following sections provide a summary of environmental conditions in the Survey Area including existing plant communities, soils, wildlife habitat, and jurisdictional waters and wetlands documented during the field surveys. Representative photographs of environmental conditions present in the Survey Area are provided in Appendix A.

4.1 SOILS

Soils pits were excavated and data were collected at nine sampling points (SPs) within the Survey Area to determine jurisdictional waters and wetlands boundaries. Soil types were determined based on a review of the Web Soil Survey of the South Coastal part of Santa Barbara County, California, (NRCS 2018). Two mapped soil units have been identified in the Survey Area (Figure 5 - Soils Map):

- Elder sandy loam (EaB), 2 to 9 percent slopes
- Milpitas-Positas fine sandy loam (MeD2), 9 to 15 percent slopes, eroded

The majority of the Survey Area is comprised of Milpitas-Positas fine sandy loam, a moderately well drained sandy soil with an underlying restrictive clay layer that forms on moderately sloped terraces (9 to 15 percent slope) (NRCS 2018). Runoff can be of moderate concern due to the low permeability of the underlain clay layer. Milpitas-Positas fine sandy loam is present at SP08, which is located in the swale that receives runoff from North San Antonio Road in the southeastern portion of the Survey Area (Figure 6 – Jurisdictional Waters and Wetlands Map).

The central portion of the Survey Area consists of Elder sandy loam and encompasses the unnamed drainage and associated wetland. Elder sandy loam is a well-drained soil derived from alluvium that forms on relatively flat landforms (alluvial fans, floodplains, and inset fans) (NRCS 2018). Elder sandy loam is present at SP01-SP07 and SP09 (Figure 6 – Jurisdictional Waters and Wetlands Map).

The presence of hydric soils was determined using a combination of direct field observations and review of the Web Soil Survey of Santa Barbara County, California, South Coastal Part (NRCS 2018). No hydric soil indicators were observed at any of the wetland Sample Points (SP01-SP09). Wetland data forms are included in the Wetland Delineation and Jurisdictional Determination Report (SES 2018).

4.2 HYDROLOGY

The drainage in the western portion of the Survey Area is ephemeral (i.e., conveying flows during and/or immediately following a rain event) and contains water periodically due to a combination of runoff from adjacent residential neighborhoods to the north and winter stormwater. As a result, the drainage supports a stand of arroyo willows (*Salix lasiolepis*), numerous southern California black walnut trees (*Juglans californica*), and coast live oak woodland.

The drainage receives flow from the north through an existing 24-inch concrete box culvert. A narrow eroded channel, with evident bed and bank, directs flow from the culvert to an arroyo willow thicket (Appendix A – Site Photographs). At that point, bed and bank are no longer present and stormwater runoff sheet flows southward across the property through the western ragweed meadow and annual brome grassland described below, and into another arroyo willow thicket. Bed and bank are present again in the southernmost arroyo willow thicket, where stormwater runoff has created a second erosion feature (Figure 6 – Jurisdictional Waters and Wetlands Map). The southern channel directs flow under Calle Real and Highway 101 through a 36-inch box culvert, into a concrete v-ditch (Appendix A – Site Photographs). The v-ditch ties into Hospital Creek, approximately 0.4-mile to the south. Hospital Creek joins Atascadero Creek approximately 0.8-mile to the south. Atascadero

Creek eventually discharges to the Pacific Ocean approximately 3.0 miles southwest of the Survey Area (Figure 7 – Connectivity Map).

A storm event on March 20-22, 2018 resulted in approximately 3.28 inches of rainfall at the Survey Area (County 2018b). Standing water (approximately 1 to 4 inches deep) was observed in several locations along the drainage on March 23, 2018 (Appendix A – Site Photographs). Evidence of flow (e.g., drainage patterns, debris racking) was present within the bed and bank of the northern and southern erosion features. The small swale in the southeastern portion of the Survey Area receives stormwater runoff from North San Antonio Road, but no hydrology indicators were observed in the swale following the March 20-22, 2018 storm event or during wetland sampling. No water was present in the Survey Area on March 27 or April 18, 2018 when wetland sampling occurred.

4.3 VEGETATION AND LAND COVER TYPES

Seven vegetation communities are present in the Survey Area: annual brome grassland, arroyo willow thicket, coast live oak woodland, western ragweed meadow, coyote brush scrub, upland mustard stand, and ornamental/landscaping plantings. Descriptions of vegetation communities are adapted from *A Manual of California Vegetation, Second Edition* (MV-II) (Sawyer et al. 2009) and are described below. Vegetation communities and land cover types within the Survey Area were mapped based on field observations and aerial imagery analysis and are depicted in Figure 8 – Vegetation Map.

4.3.1 Annual Brome Grassland (*Bromus diandrus, hordeaceus – Brachypodium distachyon* Semi-natural Herbaceous Stands)

The majority of the property is comprised of annual brome grassland (15.89 acres) (Figure 8 – Vegetation Map; Appendix A – Site Photographs). This community is dominated by non-native annual grasses (ripgut brome [*Bromus diandrus*], soft chess [*B. hordeaceus*], red brome [*B. madritensis* ssp. *rubens*], wild oats [*Avena barbata, A. fatua*]), and weedy herbaceous species such as Australian saltbush (*Atriplex semibaccata*), Russian thistle (*Salsola tragus*), and common mustard (*Brassica rapa*). Occurrences of English plantain (*Plantago lanceolata*), wild radish (*Raphanus sativus*), sweet fennel (*Foeniculum vulgare*), telegraph weed (*Heterotheca grandiflora*), and fascicled tarplant (*Deinandra fasciculata*) were frequent throughout the grassland areas.

4.3.2 Arroyo Willow Thicket (*Salix lasiolepis* Shrubland Alliance)

Arroyo willow is a riparian shrub or tree that grows to 25 feet in height. Arroyo willows form thickets along stream banks and benches, slope seeps, and drainages. Approximately 1.17 acres of arroyo willow thicket habitat is associated with the ephemeral drainage in the western portion of the property (Figure 8 – Vegetation Map). Riparian habitats, including arroyo willow thickets, are considered ESH by the County and are protected per County land use policies.

Numerous large arroyo willows are present along the ephemeral drainage, forming dense thickets in some locations (Appendix A – Site Photographs). This habitat is surrounded by, and intermixes with, the coast live oak woodland and western ragweed meadow communities described below. Understory species consist of annual grasses as described above, mugwort (*Artemisia douglasiana*), Italian thistle (*Carduus pycnocephalus*), and English plantain. One special-status

species, southern California black walnut, was observed in association with the arroyo willow thicket (Figure 8 – Vegetation Map; Appendix A – Site Photographs).

4.3.3 Coast Live Oak Woodland (*Quercus agrifolia* Woodland Alliance)

Coast live oak is a drought-resistant evergreen tree ranging from 20 to 80 feet in height, with massive spreading branches and a dense canopy of thick, waxy leaves. Coast live oaks are a long-lived species and can survive for 300 years or more. Although seemingly ubiquitous on the Central Coast of California, coast live oak woodlands are limited in distribution to a 50-mile wide swath along the coast from Mendocino County to northern Baja California and are absent from the interior ranges and Sierra Nevada. Coast live oak woodland is considered an ESH by the County and individual oak trees are protected per County regulations.

Approximately 0.58-acre of the Survey Area is comprised of individual coast live oak trees and patches of coast live oak woodland, mostly associated with the ephemeral drainage (Figure 8 – Vegetation Map; Appendix A – Site Photographs). Large coast live oak trees are scattered along the upland edges of the arroyo willow thicket community described above. The coast live oaks form a small closed-canopy woodland at the southern boundary of the site where the drainage outlets through a 36-inch culvert under Calle Real (Appendix A – Site Photographs). Understory vegetation is sparse and consists of grassy herbaceous species and scattered coyote brush (*Baccharis pilularis* ssp. *consanguinea*), mugwort, and non-natives including common mustard and smilo grass (*Stipa miliaceum*).

4.3.4 Western Ragweed Meadow (*Ambrosia psilostachya* Provisional Herbaceous Alliance)

The central portion of the ephemeral drainage is classified as western ragweed (*Ambrosia psilostachya*) meadow, consistent with the EGVCP. This vegetation community is co-dominated by upland annual grasses (e.g., ripgut brome, soft chess, and hare barley) and English plantain, with large patches of mugwort and frequent occurrences of western ragweed and curly dock (*Rumex crispus*). Although facultative plant species (i.e., occurring in wetlands 50% of the time) are present in this community (e.g., mugwort, English plantain, curly dock), hydrophytes are not dominant anywhere in the drainage, with the exception of the arroyo willow thickets. One individual obligate wetland plant, tall flatsedge (*Cyperus eragrostis*), was observed in this community. Approximately 0.27-acre of western ragweed meadow is present in the Survey Area along the ephemeral drainage (Figure 8 – Vegetation Map; Appendix A – Site Photographs).

4.3.5 Coyote Brush Scrub (*Baccharis pilularis* Shrubland Alliance)

Coyote brush scrub occurs on stabilized dunes of coastal bars, river mouths, coastline spits, coastal bluffs, open slopes, and ecotonal areas with grasslands from sea level to 3,300 feet elevation (Sawyer et al. 2009). Approximately 0.5-acre of coyote brush scrub habitat is present in the Survey Area, primarily along the northern boundary, east of the ephemeral drainage, as well as a small patch in the southeast portion of the site (Figure 7 – Vegetation Map: Appendix A – Site Photographs). This community is almost entirely comprised of coyote brush, with a large patches of iceplant (*Carpobrotus edulis*), and scattered occurrences of California sagebrush (*Artemisia californica*), mustards, and Russian thistle.

4.3.6 Upland Mustard Stand (*Brassica nigra* and Other Mustards Semi-natural Herbaceous Stands)

Weedy mustard stands can become established in fallow fields, grasslands, roadsides, levee slopes, disturbed scrublands, riparian areas, and waste place up to 3,300 feet in elevation (Sawyer et al. 2009). A large stand of common mustard and black mustard (*Brassica nigra, B. rapa*) (0.24-acre) is present along the northern boundary of the Survey Area (Figure 8 – Vegetation Map).

4.3.7 Ornamental/Landscape Plantings

Ornamental plant species and landscape plantings are present along the border with existing residential neighborhoods and streets, and in scattered occurrences throughout the Survey Area. This vegetation type is not a recognized community in MV-II, as it consists of species not native to the region that have been planted and/or exotic species that typically don't occur in the natural landscape outside of urban areas. Approximately 1.2 acres of ornamental trees and landscape plantings are present in the Survey Area. Ornamental and landscape species observed and include Monterey cypress (*Hesperocyparis macrocarpa*), Chinese elm (*Ulmus parvifolia*), Oregon ash (*Fraxinus latifolia*), giant yucca (*Yucca elephantipes*), Peruvian peppertree (*Schinus molle*), Brazilian peppertree (*Schinus terebinthifolius*), Canary Island date palm (*Phoenix canariensis*), trumpet flower vine (*Campsis radicans*), Ngaio tree (*Myoporum laetum*), crimson bottlebrush (*Callistemon citrinus*), blue plumbago (*Plumbago auriculata*) and olive (*Olea europaea*).

4.4 SPECIAL-STATUS SPECIES AND SENSITIVE HABITATS WITH THE POTENTIAL TO OCCUR IN THE SURVEY AREA

Special-status species and sensitive habitats include plant and wildlife taxa, vegetation communities, or other unique biological features that are afforded special protection by local land use policies and/or state and federal regulations. Vegetation communities may warrant special status if they are of limited distribution, support protected plants and animals, have high wildlife value, or are particularly vulnerable to disturbance. Special-status plant and animal species are those that are listed as rare, threatened, or endangered under the state and/or federal Endangered Species Acts or those that appear on various "watch lists" compiled by academic institutions, conservation organizations, and wildlife agencies. These include the CNDDB lists of "Special Animals" and "Special Plants" (CNDDB 2017), CNPS Inventory of Rare and Endangered Vascular Plants of California (CNPS 2018), "California Bird Species of Special Concern" (Shuford and Gardali 2008), "Amphibian and Reptile Species of Special Concern in California" (Williams 1986).

Twenty-two (22) special-status plant species and twenty-two (22) special-status wildlife species are documented (i.e., are tracked by the CNDDB) within the three-quadrangles surrounding the Survey Area. The likelihood for special-status plant and wildlife species documented within the Dos Pueblos Canyon, Goleta, and Santa Barbara USGS CA 7.5-minute quadrangles to occur within the habitats present in the Survey Area was evaluated. Occurrences of special-status species known to occur in the vicinity of the Survey Area are depicted in Figures 3 and 4 – CNDDB Plant and Wildlife Occurrences.

Species or vegetation communities dependent on coastal habitats (e.g., western snowy plover, sandy beach tiger beetle, globose dune beetle, Belding's savannah sparrow, Southern Coastal Salt Marsh, estuary seablite) and perennial water sources or vernal pools (e.g., tidewater goby, southwestern pond turtle, two-striped garter snake, California black rail, light-footed Ridgway's rail, bank swallow, California brackishwater snail, Gambel's water cress) are excluded from consideration due to the lack of suitable habitat and distance of the subject property from the coast (approximately 3.0 miles).

Table 2 lists special status plants and animals that have a reasonable possibility to occur in the Survey Area based on habitat suitability and requirements, elevation and geographic range, soils, topography, surrounding land uses, and proximity of known occurrences in the CNDDB database to the Survey Area. The likelihood for special-status species to occur within the Survey Area was assessed using information from the various listed sources and wildlife and botanical surveys. Narratives are provided for species for which there are land use planning and regulatory implications.

Common Name Scientific Name (Arranged alphabetically by scientific name)	Listing Status*	Habitat Requirements/Affinities	Suitable Habitat Present in Survey Area (Y/N)	Likelihood for Occurrence within Survey Area
Plants ¹		•	<u>.</u>	•
Refugio manzanita Arctostaphylos refugioensis	CRPR 1B.2	Sandstone outcrops and chaparral. Elevation range: 900 –2,700 feet. Blooming period: December – March.	No	No suitable chaparral habitat is present in the Survey Area and Refugio manzanita would have been identifiable during the 2017 field survey. In addition, the Survey Area is outside of the known elevation range. This species was not observed and is not present within the Survey Area.
Coulter's saltbush Atriplex coulteri	CRPR 1B.2	Alkaline or clay soils in coastal bluff scrub, coastal dune, coastal scrub, and valley and foothill grasslands. Elevation range: 0 – 15,000 feet. Blooming period: March- October.	Yes	Suitable grassland habitat is present in the Survey Area, but clay soils are limited to below 15 inches in the soil profile. This species is known to occur in coastal marshes and saline fields in Goleta (CNDDB 2017). This species was not observed during 2017 and 2018 field surveys and is not expected to occur in the Survey Area.
Davidson's saltscale Atriplex serenana var. davidsonii	CRPR 1B.2	Alkaline soils in coastal bluff scrub. Elevation range: 0 - 650 feet. Blooming period: April – October.	No	Coastal bluff scrub and alkaline soils are not present in the Survey Area. Due to a lack of suitable habitat, Davidson's saltscale is not expected to occur in the Survey Area.
Late-flowered mariposa lily Calochortus fimbriatus	CRPR 1B.2	Dry, open coastal woodland and chaparral. Elevation range: 0 – 3,000 feet. Blooming period: July – August.	Yes	Coastal woodland habitat is present in the Survey Area; however, late-flowered mariposa lily typically occurs on rocky substrates. A reference population of late- flowered mariposa lily located on East Camino Cielo was visited on April 18, 2018, prior to the spring botanical survey, to confirm that this species would be detectable (pers. obs. Peak 2018). No late-flowered mariposa lily was observed in the Survey Area during the spring botanical survey and this species is not expected to occur.

Table 2. Special-status Plant and Wildlife Species Occurrences Documented within the Project Region.

Common Name Scientific Name (Arranged alphabetically by scientific name)	Listing Status*	Habitat Requirements/Affinities	Suitable Habitat Present in Survey Area (Y/N)	Likelihood for Occurrence within Survey Area
Santa Barbara morning-glory Calystegia sepium ssp. binghamiaeCRPR 1ACoastal marshes and swamps, w marshes. Elevation range: 0 - 6 Blooming period: April – June.		Coastal marshes and swamps, wetlands, salt marshes. Elevation range: 0 – 65 feet. Blooming period: April – June.	No	Wetland habitat is present in the Survey Area. However, the species is presumed extirpated in California and is not expected to occur.
Southern tarplant Centromadia parryi ssp. australis	CRPR 1B.1	Salt marshes, vernal pools, mesic areas in grassland and coastal scrub. Elevation range: 0 – 660 feet. Blooming period: June – October	Yes	Vernally mesic grassland and limited coastal scrub habitats are present in the Survey Area. A reference population of southern tarplant located near Coal Oil Point was visited on April 18, 2018, prior to the spring botanical survey, to confirm that this species would be detectable (pers. obs. Peak 2018). No southern tarplant was observed in the Survey Area during the spring botanical survey and this species is not expected to occur.
Umbrella larkspur Delphinium umbraculorum	CRPR 1B.3	Oak woodland and chaparral, prefers moist locations. Elevation range: 1,320 – 5,300 feet. Blooming period: April – June.	No	Although oak woodland habitat is present in the Survey Area, umbrella larkspur typically occurs at much higher elevations. The nearest documented location is from 1965 on a road to the ridge above San Roque Canyon in Santa Barbara at approximately 1,000 feet elevation (CNDDB 2017). The Survey Area is outside the known elevation range for umbrella larkspur and this species is not expected to occur.
Ojai fritillary Fritillaria ojaiensis	CRPR 1B.2	Rocky slopes in mesic locations in woodlands, chaparral, and river basins. Elevation range: 900 – 1,650 feet. Blooming period: February – May.	No	Rocky substrates and chaparral habitat are not present in the Survey Area. Due to a lack of suitable habitat, Ojai fritillary is not expected to occur.
Mesa horkelia Horkelia cuneata var. puberula	CRPR 1B.1	Dry, sandy coastal chaparral. Elevation range: 200 – 2,900 feet. Blooming period: March – July.	No	Although suitable sandy soil is present in the Survey Area, there is no coastal chaparral habitat. Mesa horkelia is was not observed during 2017 and 2018 field surveys and this species is not expected to occur in the Survey Area.

Common Name Scientific Name (Arranged alphabetically by scientific name)	Listing Status*	Habitat Requirements/Affinities	Suitable Habitat Present in Survey Area (Y/N)	Likelihood for Occurrence within Survey Area
Santa Lucia dwarf rush Juncus luciensis	CRPR 1B.2	Chaparral, Great Basin scrub, lower montane coniferous forests, and wet, sandy soils of vernal pools, streams, meadows and seeps. Elevation range: 980 – 6,300 feet. Blooming period: April – August.	Yes	Sandy soils and wet meadow habitat are present in the Survey Area, but Santa Lucia dwarf rush typically occurs at much higher elevations. The one documented occurrence in the region was on West Camino Cielo Road at approximately 2,500 feet elevation (CNDDB 2017). The Survey Area is outside the known elevation range for Santa Lucia dwarf rush and this species is not expected to occur.
Southern California black walnut Juglans californica	CRPR 4.2	Occurs on hillsides and in canyons in riparian forest, and coast live oak woodland communities. Elevation range: 100 – 3,000 feet. Blooming period: March – May.	Yes	Eleven southern California black walnut trees were observed and mapped in the Survey Area along the ephemeral drainage 2017-2018 field surveys (Figure 8 – Vegetation Map)
Contra Costa goldfields Lasthenia conjugens	FE CRPR 1B.1	Vernal pools and wet meadows. Elevation range: 0 – 350 feet. Blooming period: March – June.	Yes	Suitable wet meadow habitat is present in the Survey Area. The nearest documented location Contra Costa goldfields is from 1973 in a vernal flat in Isla Vista and is now believed to be extirpated (CNDDB 2017). All documented occurrences of the species south of Monterey are believed to be extirpated. Contra Costa goldfields are not expected to occur in the Survey Area.
Coulter's goldfields Lasthenia glabrata ssp. coulteri	's goldfields <i>ia glabrata</i> ssp. <i>coulteri</i> CRPR 1B.1 Saline places and vernal pools. Elevation range: 0 – 3,300 feet. Blooming period: April – May.		No	No vernal pool or saline habitat is present in the Survey Area. The documented occurrences in the region are from 1981 and 1982 at the Goleta Slough (CNDDB 2017). Due to a lack of suitable habitat, Coulter's goldfields are not expected to occur in the Survey Area.
Pale-yellow layia Layia heterotricha	CRPR 1B.1	Open clayey or sandy soils, sometimes alkaline, cismontane, juniper, and pinyon woodlands, coastal scrub, and grassland habitats. Elevation range: 600 – 6,000 feet. Blooming period: April – June.	Yes	Suitable sandy soil types, grassland habitats, and oak woodland for pale-yellow layia are present in the Survey Area. The occurrence in the region is from a location approximately three miles southeast of San Marcos Pass summit on Hwy 154 (CNDDB 2017). Pale-yellow layia was not observed in the Survey Area during the spring botanical survey on April 18, 2018 and is not expected to occur.

Common Name Scientific Name (Arranged alphabetically by scientific name)	Listing Status*	Habitat Requirements/Affinities	Suitable Habitat Present in Survey Area (Y/N)	Likelihood for Occurrence within Survey Area	
Santa Barbara honeysuckle Lonicera subspicata var. subspicataCRPR 1B.2Chapar scrub. Bloomi		Chaparral, cismontane woodland, coastal scrub. Elevation range: 0 – 3,300 feet. Blooming period: April – May.	Yes	Oak woodland habitat suitable for Santa Barbara honeysuckle is present in the Survey Area. No Santa Barbara honeysuckle was observed during the 2017 and 2018 field surveys. This species is not expected to occur in the Survey Area.	
White-veined monardella Monardella hypoleuca ssp. hypoleuca	CRPR 1B.3	Oak woodland and chaparral. Elevation range: 0 – 5,000 feet. Blooming period: May – October.	Yes	Although oak woodland habitat suitable for white- veined monardella is present in the Survey Area, this species was not observed during 2017 and 2018 field surveys and is not expected to occur.	
Nuttall's scrub oak Quercus dumosa	CRPR 1B.1	Sandy, clay loam soils in closed-cone coniferous forests, chaparral, or coastal scrub. Elevation range: 0 – 650 feet. Blooming period: March – May.	Yes	Suitable sandy loam soils and coastal scrub habitat is present in the Survey Area. Nuttall's scrub oak was not observed during 2017 and 2018 field surveys and is not expected to occur in the Survey Area.	
Black-flowered figwort Scrophularia atrata	CRPR 1B.2	Calcium and diatom-rich soils in chaparral, coastal dunes, coastal scrub, and riparian woodland. Elevation range: 0 – 1,300 feet. Blooming period: April – July.	Yes	Oak woodland habitat suitable for black-flowered figwort is present in the Survey Area. No black- flowered figwort was observed during the 2017 and 2018 field surveys. This species is not expected to occur in the Survey Area.	
Sonoran maiden fern Thelypteris puberula var. sonorensis	CRPR 2B.2	Along streams and seepage areas. Elevation range: 150 – 2,400 feet. Blooming period: N/A.	Yes	Suitable habitat for Sonoran maiden fern is present along the unnamed ephemeral drainage in the Survey Area. However, Sonoran maiden fern was not observed during 2017 and 2018 field surveys. This species is not expected to occur in the Survey Area.	
Santa Ynez false lupine Thermopsis macrophylla	CRPR 1B.3	Chaparral, prefers sandstone. Elevation range: 3,300 – 4,600 feet. Blooming period: May – June.	No	Chaparral and sandstone habitat suitable for Santa Ynez false lupine is not present in the Survey Area. Additionally, the Santa Ynez false lupine typically occurs at much higher elevations. Due to a lack of suitable habitat, Santa Ynez false lupine is not expected to occur in the Survey Area.	
Invertebrates					

Common Name Scientific Name (Arranged alphabetically by scientific name)	Listing Status*	Habitat Requirements/Affinities	Suitable Habitat Present in Survey Area (Y/N)	Likelihood for Occurrence within Survey Area
Monarch butterfly Danaus plexippus (California overwintering population)	SA	Overwintering sites (i.e., roosts) extend from Mendocino to Baja California, Mexico and are located in wind-protected tree groves (typically eucalyptus, Monterey pine, and cypress), with nectar source and water nearby.	No	Suitable protected eucalyptus, Monterey pine, or cypress groves that would support aggregations are not present in the Survey Area. The nearest known over- wintering site is at the Goleta Butterfly Grove in Ellwood Mesa, approximately 8 miles west of the Survey Area (CNDDB 2017)
Crotch bumble-bee Bombus crotchii SA		This species is exclusive to coastal California east towards the Sierra-Cascade Crest in open grasslands and scrub habitats (Koch 2012). Nesting occurs underground. Feeds on buckwheat, bush poppy, and snapdragons (Koch 2012).		Open suitable grassland habitat is present in the Survey Area, but only one buckwheat plant (<i>Eriogonum</i> <i>fasciculatum var. fasciculatum</i>) was observed in the Survey Area during the 2017 and 2018 field surveys. Additionally, the one documented location in the region is in Isla Vista from 1959 and 1968 (CNDDB 2017). Due to lack of suitable foraging habitat, the crotch bumble bee is not expected to occur in the Survey Area.
Amphibians				
FiniphiotationFiniphiotationFiniphiotationFiniphiotationFiniphiotationFound primarily in coastal drainages of Central California, from Marin County, California, to northern Baja California, Mexico. Uses aquatic, riparian, and upland habitats. Requires a breeding pond, slow- flowing stream reach, or deep pool within a stream with vegetation or other material to which egg masses may be attached. Uses both riparian and upland habitats for foraging, shelter, cover. Will also use small mammal burrows and moist leaf litter as refugia.		No	The closest known occurrences of CRLF are approximately 5.4, 6.4, and 12 miles west of the Survey Area from Bell, Carneros, and Tecolote Creeks (CNDDB 2017, SBMNH unpublished). These are beyond the maximum upland dispersal/migration distance for CRLF. Additionally, the drainage in the Survey Area is ephemeral and could not support breeding or sustained habitation for by CRLF. CRLF is not expected to occur in the Survey Area.	

Common Name Scientific Name (Arranged alphabetically by scientific name)	Listing Status*	Habitat Requirements/Affinities	Suitable Habitat Present in Survey Area (Y/N)	Likelihood for Occurrence within Survey Area
Coast range newt Taricha torosa torosaSSCOccurs in coastal drainages. Breeds in ponds, reservoirs, and slow flowing streams.		No	The CNDDB has one documented occurrence in the region from Rattlesnake Canyon Park, approximately 8 miles northeast of the Survey Area (CNDDB 2017). Coast range newts have also been documented in Glenn Annie Creek (SBMNH unpublished). The drainage in the Survey Area is ephemeral and does not sustain water long enough to be suitable coast range newt habitat. This species is not expected to occur in the Survey Area.	
Birds		•		
Cooper's hawkWL MBTANests in oak, riparian, and non-native woodlands. Frequents a wide variety of habitats while hunting		Yes	Cooper's hawk is considered an uncommon transient and local, resident breeder in Santa Barbara County (Lehman 2017). Suitable oak and riparian nesting habitat is present in the Survey Area. The species is considered an uncommon visitor and potential breeder onsite. No raptor nests were observed in the Survey Area during 2017 and 2018 field surveys.	
Tri-colored blackbird Agelaius tricolor	SC SSC	Nests in dense colonies in large freshwater marshes in thick stands of cattails or bulrushes. Forages locally in open habitats such as farm fields, pastures, cattle pens, large lawns.	No	Historical use as farmland for row crops and periodic mowing in the Survey Area have resulted in potential foraging habitat for the tri-colored blackbird. However, the species is no longer known to nest in the South Coast of Santa Barbara County and the tri- colored blackbird typically forages in suitable habitats near nesting sites year-round (Lehman 2017). This species is not expected to occur in the Survey Area.
Ferruginous hawk Buteo regalisWL MTBAFound at all seasons in very open and dry areas in grassland, sagebrush plains, saltbush and greasewood flats, rangeland, desert, and agricultural areas, including over plowed fields.		No	This species is a very rare fall transient and winter visitor along the South Coast east of Gaviota (Lehman 2017). Although grassland foraging habitat is present in the Survey Area, ferruginous hawks typically require larger foraging areas. This species is not expected to occur in the Survey area.	

Common Name Scientific Name (Arranged alphabetically by scientific name)	Listing Status*	Habitat Requirements/Affinities	Suitable Habitat Present in Survey Area (Y/N)	Likelihood for Occurrence within Survey Area
White-tailed kite Elanus leucurus	FP MTBA FOund in a wide variety of open habitat North America, including open oak grassland, desert grassland, agricultural areas, and marshes. Main requirements trees for perching and nesting, and open ground with high populations of diurna active rodents.		Yes	Suitable open foraging habitat is present in the Survey Area. There are several known nesting occurrences, including More Mesa, Ellwood Mesa, Lake Los Carneros, and Cieneguitas Creek (CNDDB 2017, SBMNH unpublished). The species may use the Survey Area on a transient basis, but nesting is considered unlikely given the relatively limited foraging habitat. No raptor nests were observed in the Survey Area during 2017 and 2018 field surveys.
Mammals	•			
Townsend's big-eared bat SC an Corynorhinus townsendii SSC m R li st		Found in a variety of locations including coniferous forests and woodlands, deciduous riparian woodland, semi-desert and montane shrublands. Hibernates in mines or caves in the winter months. Roosts in a variety of habitats including limestone caves, lava tubes, and man-made structures.	No	Roosting habitat for Townsend's big eared bat is not present in the Survey Area. Occurrences in the region are from Dos Pueblos Canyon Road and Monte Vista Elementary School in Santa Barbara, but the exact locations are unknown (CNDDB 2017). Due to lack of suitable roosting habitat, this species in not expected to occur in the Survey Area.
San Diego desert woodrat Neotoma lepida intermedia	SSC	Coastal scrub, oak woodlands, chaparral, desert, and juniper/sagebrush habitats. Prefers rocky crevices for building nests.	Yes	Suitable oak woodland occurs in the Survey Area, but rocky outcrops are not present. The one known occurrence in the region was among sandstone boulders and bedrock in chaparral and oak woodland approximately 6 miles northwest of the Survey Area (CNDDB 2017). This species is considered unlikely to occur in the in the Survey Area, although its congener, the big-eared (= dusky-footed) woodrat (<i>Neotoma</i> <i>macrotis</i>) is relatively common. No woodrat nests were observed in the Survey Area during 2017 and 2018 field surveys.
Big-free tailed bat Nyctinomops macrotis	SSC	Rugged, rocky terrain. Roost in crevices, buildings, caves, tree holes. Migratory		Rugged, rocky terrain is not present in the Survey Area. Due to lack of suitable habitat, big-free tailed bat is not expected to occur.

*Listing Status Notes:

Federal: FE – Federally listed Endangered FT – Federally listed Threatened FC – Federal Candidate Species WL – USFWS Watch list BCC - USFWS Bird of Conservation Concern MTBA – Migratory Bird Treaty Act SE – State listed Endangered State: ST – State listed Threatened SC – State Candidate Species SR - State Rare Species SA – State Special Animal FP - CDFW Fully Protected Species SSC - CDFW Species of Special Concern WL - CDFW Watch List California Native Plant Society Rare Plant Rank CRPR: CBR - Considered but Rejected **CRPR** Extensions 1B – Rare, threatened, or endangered in CA and elsewhere 0.1 - Seriously endangered in California 2 – Rare, threatened, or endangered in CA but common elsewhere 0.2 - Fairly endangered in California 4 – Limited distribution (Watch-list) 0.3 - Not very endangered in California CBR - Considered but Rejected

¹ – Unless otherwise noted, habitat, elevation, and blooming period for special-status plant species is from *The Jepson Manual, Second Edition* 2012 and CNPS 2016.

4.5 BOTANICAL RESOURCES

The Survey Area was historically used for agriculture and is regularly mowed, resulting in few native species and an abundance of non-natives. A total of 81 plant species was observed in the Survey Area during the 2017 and 2018 field surveys. Of the species observed, 16 (20 percent) were native and 65 (80 percent) were non-native, naturalized, or ornamental/landscape species. A comprehensive list of vascular plant species observed in the Survey Area is provided in Appendix B.

Three sensitive vegetation communities and one special-status tree species were observed and mapped in the Survey Area. Special-status species observed or with a likelihood of occurrence in the Survey Area based on suitable habitat, soil types, and/or nearby populations, are described in detail in below. Each species' habitat preferences, distribution, and key characteristics are provided. Special-status plants that require specific soil types, elevation, or habitats not present in the Survey Area (i.e., Davidson's saltscale, Santa Barbara morning glory, umbrella larkspur, Ojai fritillary, Santa Lucia dwarf rush, Coulter's goldfields, and Contra Costa goldfields) or species that were not observed during 2017 and 2018 field surveys (i.e., Refugio manzanita, Santa Barbara honeysuckle, black-flowered figwort, Coulter's saltbush, mesa horkelia, Nuttall's scrub oak, Sonoran maiden fern, Santa Ynez false lupine, white-veined monardella, late-flowered mariposa lily, southern tarplant and pale-yellow layia) are not discussed further, as they are not expected to occur.

4.5.1 Sensitive Vegetation Communities

Sensitive vegetation communities are those that are limited in distribution or support sensitive plant or wildlife habitat. Three sensitive vegetation communities, arroyo willow thicket, coast live oak woodland, and western ragweed meadow, comprise approximately 2 acres of the 19-acre Survey Area (Figure 8 – Vegetation Map). Oak woodlands and individual mature coast live oak trees (6 inches or greater diameter at breast height) are considered sensitive by the County and are provided protection by the Comprehensive Plan Conservation Element Oak Tree Protection Supplement (2009). Ephemeral wetland and riparian habitats, including western ragweed meadows and arroyo willow thickets, are considered valuable biological resources and are classified as ESH per the Environmental Thresholds and Guidelines Manual (County 2008).

One additional sensitive vegetation community, Southern Coastal Salt Marsh, was documented by the CNDDB (2017) within the three-quadrangle region. This sensitive vegetation community is not present in the Survey Area.

4.5.2 Special-status Plant Species Observed in the Survey Area

Southern California black walnut (*Juglans californica*) (*CRPR 4.2*). Southern California black walnut is a small, broad-leaved, winter-deciduous tree with one to five trunks. It has pinnately divided leaves with 11 to 19 lanceolate to ovate toothed leaflets. This species generally blooms between March and May and trees produce spherical, leathery-husked, strong-smelling fruit (walnuts). This species can be found on slopes and in canyons at elevations between 100 and 3,000 feet, and it is often associated with riparian habitats and oak woodlands. Southern California black walnut is considered uncommon in California and fairly endangered by the CNPS, but can be locally abundant where it occurs. Southern California black walnut is found from the Santa

Lucia Mountains in Santa Barbara County, and along the coastal portions of the Transverse Ranges, south to the northern Peninsular Ranges in northern San Diego County. Southern California Black Walnut forest is a fragmented, rare, and declining vegetation community, and it is threatened by urbanization and grazing, which inhibit natural reproduction (CNPS 2018). Eleven southern California black walnut trees were within the Survey Area along the ephemeral drainage (Appendix A – Site Photographs; Figure 8 – Vegetation Map).

4.5.2.1 Special-Status Plant Species Abundance and Distribution in the Survey Area

Table 3 summarizes the occurrences of special-status plant species observed and mapped in the Survey Area during the 2017 and 2018 field surveys and they are depicted in Figure 8.

Special-status Plant Species (species code/occurrence number)	Latitude ¹	Longitude ¹	Number of Plants Observed/ Description of Location
JUCA 01	N 34.44349°	W 119.78592°	1 tree, along edge of fire access road. There is a dead walnut tree at this location as well.
JUCA 02-03	N 34.44379°	W 119.78568°	2 trees west of drainage, east of fire access road. Both trees appear unhealthy and in poor health. There is a third, dead walnut tree at this location as well.
JUCA 04	N 34.44415°	W 119.78577°	1 large tree associated with arroyo willow thicket habitat at the north end of the drainage.
JUCA 05-09	N 34.44348°	W 119.78550°	5 trees associated with coast live oak woodland habitat in the middle portion of the drainage.
JUCA 10-11	N 34.44274°	W 119.78407°	2 large trees associated with coast live oak woodland and arroyo willow thicket habitat near the 36-inch culvert at the southern end of the drainage.

 Table 3. Special-status Plant Species Observed in the Survey Area in 2017-2018

¹All waypoints were collected in datum NAD83, UTM Zone 11N.

4.6 WILDLIFE RESOURCES

The field surveys enabled a characterization of habitat quality and assessment of potential for occurrence of special-status wildlife species (e.g., Cooper's hawk, white-tailed kite, etc.) in the Survey Area. A list of all wildlife species observed within the Survey Area is included as Appendix C – Wildlife Inventory.

No special-status wildlife species were observed in the Survey Area during the 2017 and 2018 field surveys. No surface flow or standing pools were present in the ephemeral drainage that would support semi-aquatic species (e.g., CRLF, coast range newt). The narratives below describe the special-status wildlife species with a likelihood of occurrence in the Survey Area. Each species' habitat preferences, distribution, and key characteristics are provided.

4.6.1 General Wildlife Habitat

Annual brome grassland, arroyo willow thicket, and coast live oak woodland are the prevailing habitat types, as described in Section 4.3. Twenty-four (24) bird species were observed during the 2017 and 2018 field surveys including red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), acorn woodpecker (*Melanerpes formicivorus*), Cassin's king bird (*Tyrannus vociferans*), western kingbird (*Tyrannus verticalis*), western scrub jay (*Aphelocoma californica*), blue-gray gnatcatcher (*Polioptila caerulea*), California towhee (*Pipilo crissalis*), and western meadowlark (*Sturnella neglecta*). No nesting behavior or active bird nests were observed in the Survey Area during the March and April 2018 field surveys.

The one mammal species detected in the Survey Area was the California ground squirrel (*Otospermophilus beecheyi*). One reptile species was also recorded; western fence lizard (*Sceloporus occidentalis*).

4.6.2 Special-status Wildlife Species with the Potential to Occur in the Survey Area

Special-status wildlife species that have the potential to occur in the Survey Area based on presence of suitable habitat and/or documented occurrences in the project vicinity include Cooper's hawk (*Accipiter cooperii*), white-tailed kite (*Elanus leucurus*), and San Diego desert woodrat (*Neotoma lepida intermedia*).

Cooper's hawk (*Accipiter cooperii*) (WL). Cooper's hawk is considered an uncommon yearround resident and local breeder in the Santa Barbara Region (Lehman 2017). Woodland habitats (e.g., oak, riparian, and non-native) are preferred for nesting. This species frequents a wide variety of habitats when hunting. Prey consists almost entirely of birds. There is suitable foraging and nesting habitat for Cooper's hawk within the Survey Area. Cooper's hawk is expected as an uncommon visitor and possible resident breeder in the Survey Area.

White-tailed kite (*Elanus leucurus*) (*FP*). The white-tailed kite is Fully Protected by the State of California (California Fish and Game Code' Section 3511) and its habitat is afforded special protections under Santa Barbara County land use policies. The species is a year-round resident in suitable habitat. Kites are known to nest at Lake Los Carneros, Ellwood Mesa, and More Mesa in Goleta (SBMNH unpublished). There is a potential for white-tailed kites to forage in the Survey Area, but periodic mowing of the site has resulted in reduced habitat quality for the their preferred prey base (small mammals such as California voles and western harvest mice). Nesting is unlikely given the limited extent of suitable foraging habitat.

San Diego Desert woodrat (*Neotoma lepida intermedia*) (*SSC*). The desert woodrat is widely distributed throughout Southern California (CDFW 2008). It is found in a variety of habitats, including chaparral, oak woodland, and riparian. Nests are often constructed in rocky crevices or against trees. The more locally common and widespread big-eared (= dusky-footed) woodrat (*Neotoma macrotis*) is more likely to occur in the Survey Area. Taxonomic reorganization of this genus suggests that the San Diego woodrat (*N. lepida intermedia*) is synonymous with Bryant's woodrat (*N. bryanti intermedia*) (Patton et al. 2007).

No woodrat middens were observed in the oak woodland habitat in the Survey Area during the 2017 and 2018 surveys.

4.7 JURISDICTIONAL WATERS AND WETLANDS

A formal waters and wetlands delineation and jurisdictional determination was conducted on March 27 and April 18, 2018. Soil pits were excavated and data were collected at nine sampling points (SP01-SP09) within the ephemeral drainage and the swale that receives runoff from North San Antonio Road (Figure 6 – Jurisdictional Waters and Wetlands Map). The results of the delineation are described below and additional details and data forms are provided in the Wetland Delineation and Jurisdictional Determination Report (SES 2018).

The ephemeral drainage in the Survey Area is likely to be considered jurisdictional under current state and federal guidance. The drainage directs storm water runoff to an ephemeral blue-line stream (Atascadero Creek) that flows to the Pacific Ocean (see Figure 7 – Connectivity Map). In addition, the western ragweed meadow associated with the drainage also meets County and CDFW wetland parameters.

4.7.1 Waters of the U.S.

The erosion features in the northern and southern portions of the drainage have defined bed and banks, are periodically connected to downstream waters (i.e., Hospital Creek, Atascadero Creek), and are therefore likely to be considered jurisdictional waters under current federal guidance. Hydrology indicators (e.g., debris racking, drainage patterns) were observed in the channels of both the northern and southern erosion features on March 23 and March 28, 2018.

The channel in the northern erosion feature is narrow, approximately 90 feet long, and 2 to 3 feet wide and 12 to 24 inches deep at the OHWM. It has gradually sloped banks that range from 4 feet to 10 feet in height. The channel bottom is comprised of sediment and vegetation, with little to no cobble. One (1) to 4 inches of standing water was observed in the channel in the northern erosion feature on March 23, 2018, approximately 24 hours after a storm event (Appendix A – Site Photographs).

The channel in the southern erosion feature is approximately 370 feet long and ranges from 3 to 6 feet wide and 12 to 36 inches deep at the OHWM. The banks are incised to moderately sloped and range from 4 feet to 10 feet in height and the channel bottom consists of sediment and cobble (Appendix A – Site Photographs). Evidence of flow (debris racking and drainage patterns) was observed in the channel in the southern erosion feature on March 23, 2018, but no standing water was present.

The area of USACE-jurisdictional waters of the U.S. extends to the OHWM on the banks of the northern and southern erosion features (0.20-acre) (Figure 6 – Jurisdictional Waters and Wetlands Map).

4.7.2 Federal Wetlands

None of the Sample Points met all three wetland criteria. Therefore, no federal-defined wetlands are present within the Survey Area.

4.7.3 CDFW Jurisdictional Streambed and Wetlands

The width of the northern and southern erosion features at the top of the bank (TOB) ranges from 5 to 20 feet wide. The erosion features are encompassed by either riparian vegetation or CDFW-defined wetland habitat. Therefore, the upland limit of CDFW jurisdiction along the drainage was determined based on the outer extent of riparian vegetation or CDFW-defined wetlands (Figure 6 – Jurisdictional Waters and Wetlands Map). Approximately 1.55 acres of CDFW-jurisdictional streambed and wetlands are present in the Survey Area. CDFW wetlands correspond to the County wetlands described below (i.e., one wetland parameter required).

4.7.4 County Wetlands

Wetland hydrology indicators (drift deposits and drainage patterns) were observed at three of the nine wetland sample points (SP02, SP07, SP09). Therefore, portions of the drainage the meet the County wetland definition based on this one criterion. The lateral extent of County wetlands was delineated based on presence of these hydrology indicators (0.27-acre).

Hydrophytic vegetation is not dominant at any of the sampling points within the drainage or in the swale off of North San Antonio Road and no hydric soil indicators were observed at any of the sample points (SES 2018).

4.7.5 Summary of Regulatory Agency Jurisdiction

The ephemeral drainage in the Survey Area contains USACE non-wetland Waters of the U.S., CDFW Streambed, and CDFW/County-defined (one parameter) wetlands. No USACE-defined wetlands are present in the Survey Area. The total acreages of waters/wetlands onsite that are subject to the permitting authority of the USACE, CDFW, and County are summarized in Table 4 below and depicted in Figure 6.

	Waters of the U.S.				
Location	Non-wetland Waters (Acres)	USACE-defined Wetlands (Acres)	CDFW-Jurisdictional Streambed/Wetlands (Acres) ¹	County Wetlands (Acres)	
Unnamed Drainage	0.20	0	1.55	0.27	
Swale from N. San Antonio Road	0	0	0	0	
Totals:	0.	.20	1.55	0.27	

Table 4 – Jurisdictional Acreages	within the Survey Area
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¹ Acreage for CDFW-jurisdictional areas includes County wetlands.

5.0 SUMMARY OF BIOLOGICAL CONSTRAINTS AND RECOMMENDATIONS

One of the primary objectives of this Assessment is to describe the property's sensitive biological resources and applicable federal, state, and local regulatory policies and development standards. The following sections summarize the biological constraints identified in the Survey Area and provide recommendations to assist with the planning and permitting process.

Consistent with the County's *Environmental Thresholds and Guidelines Manual* (County 2008), the impacts on biological resources are considered significant if a proposed project:

- Has a substantial adverse effect, either directly or through habitat modifications, on any on any sensitive natural community or plant or wildlife species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.
- Has a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interferes substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflicts with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

5.1 ENVIRONMENTALLY SENSITIVE HABITAT (ESH)

The 19-acre Survey Area supports 2 acres of habitat types that are considered ESH by the County: coast live oak woodland, arroyo willow thicket, and western ragweed meadow.

5.1.1 Coast Live Oak Woodland

Approximately 0.58-acre of the Survey Area is comprised of individual coast live oak trees and patches of coast live oak woodland, mostly associated with the ephemeral drainage (Figure 8 – Vegetation Map; Appendix A – Site Photographs).

The Comprehensive Plan Conservation Element Oak Tree Protection in the Inland Rural Areas of Santa Barbara County, Development Standard 1 (2009) and the Eastern Goleta Valley Community Plan provide protection for all species of mature oak trees. Coast live oak trees are considered to mature if they are six inches or greater diameter at breast height (DBH) or six feet or greater in height. The County's Standard Conditions and Mitigation Measures (County 2011) require that grading, trenching, ground disturbance, construction activities and structural development occur beyond six feet of the dripline of all oak trees. Mitigation for impacted oak trees requires posting of a performance security and tree replacement at a 10:1 ratio, preferably onsite.

A comprehensive oak tree survey should be performed to map all the trees within proposed impact areas. The tree survey should include DBH and canopy width for each tree. Project plans should

depict all trees to be removed and the prescribed 6-foot buffer from the drip-line of any trees to be avoided. Oak trees that are removed or impacted must be replaced at a 10:1 ratio. Onsite mitigation for all oak tree impacts is preferred. An alternative mitigation site would need to be identified and approved by the County if onsite mitigation is not feasible.

5.1.2 Arroyo Willow Thicket

Approximately 1.17 acres of arroyo willow thicket habitat is associated with the ephemeral drainage in the western portion of the property (Figure 8 – Vegetation Map; Appendix A – Site Photographs). Riparian habitats, including arroyo willow thickets, are considered an ESH by the County and the Eastern Goleta Valley Community Plan and are protected per County regulations. The County prescribed setback (i.e., buffer area) from the outer (upland) edge of the riparian canopy, or the top-of-bank of the drainage in the absence of riparian vegetation, is 50 feet in urban areas, which would likely apply to the Survey Area. Intrusion within the buffer areas for riparian habitats and streams may be considered significant.

The ephemeral drainage and riparian habitat within the Survey Area is degraded and there is potential for on-site riparian habitat restoration/enhancement. A 3:1 mitigation ratio (acres restored: acres impacted) is typically required by the agencies (USACE, CDFW, and County) for impacts to jurisdictional waters and/or riparian/wetland habitat. In the event that impacts to the drainage or associated riparian habitat is proposed, a Habitat Restoration Plan should be prepared to address and mitigate those impacts.

5.1.3 Western Ragweed Meadow

Approximately 0.27-acre of western ragweed meadow habitat is present in the Survey Area along the ephemeral drainage (Figure 8 – Vegetation Map; Appendix A – Site Photographs). Ephemeral wetland habitats, including western ragweed meadows, are considered an ESH by the County and the Eastern Goleta Valley Community Plan and are protected per County regulations.

The wetland habitat within the Survey Area is degraded and would benefit from habitat restoration/enhancement. A 3:1 mitigation ratio (acres restored: acres impacted) is typically required by the agencies (USACE, CDFW, and County) for impacts to jurisdictional waters and/or wetland habitat.

5.2 SPECIAL-STATUS PLANT SPECIES

One special-status plant species is present in the Survey Area: southern California black walnut. Eleven southern California black walnut trees were mapped in the Survey Area along the ephemeral drainage. A 3:1 mitigation ratio, either for area or number of plants impacted, is typically required by the County for impacts to special-status plants.

5.3 SPECIAL-STATUS WILDLIFE

No special-status wildlife species were observed in the Survey Area during 2017-2018 field surveys. Three special status wildlife species have potential to occur in the Survey Area: Cooper's hawk, white-tailed kite, and San Diego desert woodrat.

Cooper's hawk may forage and nest in the Survey Area. Foraging habitat value for white-tailed kites in the Survey Area has been reduced by periodic mowing, resulting in low potential for nesting. San Diego desert woodrat is unlikely to nest in the Survey Area.

Impacts to special status wildlife species would include habitat loss and mortality or injury during project development. It may be possible to mitigate for habitat loss through onsite restoration. Incidental injury or mortality of special status wildlife species can be reduced through minimization and avoidance measures during construction (e.g., pre-construction nesting bird surveys, worker environmental awareness training, protective fencing installation, biological monitoring, etc.).

5.4 JURISDICTIONAL WATERS AND WETLANDS

The unnamed drainage in the Survey Area contains USACE non-wetland Waters of the U.S., CDFW Streambed, and CDFW/County-defined (one parameter) wetlands (SES 2018). The permitting authority of the USACE, CDFW, and County are summarized below.

5.4.1 U.S. Army Corps of Engineers

There are no USACE-jurisdictional wetlands within the Survey Area. Approximately 0.20-acre of waters of the U.S. was identified and mapped within the Survey Area. USACE jurisdiction extends to the OHWM on the banks of the northern and southern erosion features within the drainage.

This delineation is conditional upon review and final jurisdictional determination by the USACE. USACE-defined waters are also subject to the permitting authority of the County.

5.4.2 CDFW Jurisdictional Streambed and Wetlands

Approximately 1.55 acres of CDFW jurisdictional streambed/wetlands were identified and mapped within the Survey Area. The limits of CDFW jurisdiction extends to the outer edge of the riparian vegetation, the outer edge of CDFW-defined wetlands, or the TOB, whichever is greater.

The CDFW administers Streambed Alteration Agreements under Sections 1600-1607 of the Fish & Game Code. Sections 1600-1607 address any project that will "(1) divert, obstruct, or change the natural flow or the bed, channel, or bank of any river, stream, or lake designated by the department [California Fish and Wildlife] in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit, (2) use materials from the streambeds designated by the department, or (3) result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass in to any river, stream, or lake designated by the department" (Section 1601). A Streambed Alteration Agreement is required for any work occurring within a water or wetland with defined bed and bank features.

5.4.3 Central Coast Regional Water Quality Control Board

The drainage periodically discharges stormwater runoff into downstream waters (i.e., Hospital Creek, Atascadero Creek, and Pacific Ocean). The Central Coast RWQCB regulates work involving discharge of pollutants into waters/wetlands under Section 402 of the CWA and the National Pollutant Discharge Elimination System permit (NPDES) program. Under the NPDES program, projects involving discharge of pollutants into waters/wetlands must have a Stormwater

Pollution Prevention Plan (SWPPP), which is reviewed and approved by the Central Coast RWQCB and the County.

5.4.4 County of Santa Barbara

The Survey Area contains 0.27-acre of one parameter wetlands and 1.28 acres of riparian habitat that are subject to the permitting authority of the County. Project-related impacts to County wetlands or streams/riparian areas must be mitigated or avoided, consistent with County land use policies protecting streams and wetlands. Per the *Environmental Thresholds and Guidelines Manual* (County 2008), the County-prescribed setback for wetland and stream habitats is 50 feet in urban areas. Intrusion within the buffer areas for wetland and riparian habitats may be considered significant.

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FIGURES







LEGEND:

Survey Area Boundary USGS 7.5' Quadrangle **CNDDB Plant Occurrences** black-flowered figwort Contra Costa goldfields Coulter's goldfields Coulter's saltbush Davidson's saltscale estuary seablite Gambel's water cress late-flowered mariposa-lily mesa horkelia Nuttall's scrub oak Ojai fritillary pale-yellow layia Refugio manzanita Santa Barbara honeysuckle Santa Barbara morning-glory Santa Lucia dwarf rush Santa Ynez false lupine Sonoran maiden fern Southern Coastal Salt Marsh southern tarplant umbrella larkspur white-veined monardella

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County Wetland (0.27 acres)

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STORRER ENVIRONMENTAL S E R V I C E S E R V I C E S (805) 682-2065 www.storrerenvironmental.com Jurisdictional Waters and Wetland Map Santa Barbara Metropolitan Transit District (MTD) Calle Real Property



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Calle Real Property

APPENDIX A SITE PHOTOGRAPHS



Photo 1: Fire access road dividing the east and west portions of the Survey Area (Aspect: North). Photo taken December 19, 2017.



Photo 2: Degraded paved driveway in the southeastern quarter of the Survey Area (Aspect: East). Photo taken December 19, 2017.



Photo 3: Evidence of periodic mowing of the annual brome grassland (Aspect: Northwest). Photo taken December 19, 2017.



Photo 4: Short, steep berm running along the eastern perimeter of the Survey Area (Aspect: North). Photo taken December 19, 2017.



Photo 5: Northern extent of the drainage and 24-inch culvert inlet (Aspect: North). Photo taken March 23, 2018, 24 hours after storm that resulted in approximately 3.28 inches of rainfall at the Survey Area.



Photo 6: Southern extent of ephemeral drainage and 36-inch outlet culvert that leads under Calle Real (Aspect: Southeast). Photo taken March 23, 2018.



Photo 7: The drainage outlets through a 36-inch culvert under Calle Real and into a concrete vditch that eventually ties into Hospital Creek (Aspect: North). Photo taken March 23, 2018.



Photo 8: Arroyo willow thicket and coast live oak woodland habitat associated with the northern portion of the drainage in the background, annual brome grassland in the foreground (Aspect: West). Photo taken April 18, 2018.



Photo 9: Coast live oak woodland habitat along the southern perimeter of the Survey Area, adjacent to the culvert that outlets under Calle Real (Aspect: West). Photo taken December 19, 2017.



Photo 10: Western ragweed meadow/County wetland associated with the ephemeral drainage. Shovel located at SP09 (Aspect: South). Photo taken April 18, 2018.



Photo 11: View from North San Antonio Road of the swale and coyote brush scrub habitat in the southeastern quarter of the Survey Area (Aspect: West). Photo taken March 27, 2018.



Photo 12: Five southern California black walnut trees (JUCA 05-09) associated with the drainage (Aspect: South). Photo taken April 18, 2018.



Photo 13: Eroded channel in northern portion of drainage (Aspect: North). Several inches of standing water was present 24 hours after a rain event. Photo taken March 23, 2018.



Photo 14: Channel in southern portion of drainage (Aspect: Northwest). Drainage patterns and debris racking were evident in channel. Photo taken March 23, 2018.

APPENDIX B VASCULAR PLANT INVENTORY

Vascular Plant Species Observed within the Santa Barbara Metropolitan Transit District Calle Real Property (APNs 59-140-004, 59-140-005, 59-140-006, 67-230-026) Santa Barbara County, California

		~ · ·		CNPS Rare
Family	Scientific Name	Common Name	Origin	Plant Rank
Cuprossagaaa	GYMNOSPERMS			
Cupressaceae	Hesperocyparis macrocarpa	Monterey cypress	0	
A gavacaaa	ANGIOSPERMS - Dicots			
Agavaceae	Agave attenuata	fox tail agave	0	
	Yucca elephantipes	giant yucca	0	
Aizoaceae				
A	Carpobrotus edulis	iceplant	Ι	
Anacardiaceae	Schinus molle	Peruvian pepper tree	0	
	Schinus terebinthifolius	Brazilian pepper tree	0	
Apiaceae		r ri		
	Foeniculum vulgare	sweet fennel	Ι	
Apocynaceae	17			
Arecaceae	vinca major	greater periwinkle	1	
<u></u>	Phoenix canariensis	Canary Island date palm	Ι	
Asteraceae		y 1		
	Ambrosia psilostachya	western ragweed	Ν	
	Artemisia californica	California sagebrush	Ν	
	Artemisia douglasiana	mugwort	Ν	
	Baccharis pilularis ssp. consanguinea	coyote brush	Ν	
	Carduus pycnocephalus	Italian thistle	Ι	
	Cynara cardunculus	cardoon	Ι	
	Deinandra fasciculata	fascicled tarplant	Ν	
	Helminthotheca echioides	bristly ox-tongue	Ι	
	Heterotheca grandiflora	telegraph weed	N	
Dianonia ana a	Silybum marianum	milk thistle	1	
Dignomaceae	Campsis radicans	trumpet flower vine	0	
Boraginaceae	Campsis radicans		0	
Brassicaceae	Amsinckia intermedia	common fiddleneck	Ν	
	Brassica nigra	black mustard	Ι	
	Brassica rapa	common mustard	Ι	
	Lobularia maritima	sweet alyssum	Ι	
	Raphnus sativus	wild radish	Ι	
<u>Cactaceae</u>			_	
Convitaliance	Opuntia ficus-indica	Indian fig	I	
Caprilollaceae	Lonicera ianonica	Japanese honevsuckle	т	
Chenonodiaceae	Lonicera japonica	Japenese noneysuckie	1	
Chenopoulaceae	Atriplex semibaccata	Australian saltbush	I	
	Chenopodium album	lambs quarters	I	
	Salsola tragus	Russian thistle	Ι	
Convolvulaceae	0			
	Calystegia macrostegia ssp. cyclostegia	coast morning glory	Ν	
Crassulaceae				
F 1 1.	Crassula ovata	jade plant	0	
Euphorbiaceae	Piainus communis	anotar baan	т	
Fabaceaae	Kicinus communis	castor beam	1	
<u>r usuccuuc</u>	Acacia sp.	wattle	0	
	Medicago polymorpha	bur clover	I	
	Melilotus sp.	sweetclover	Ι	
	Vicia benghalensis	purple vetch	Ι	
Fagaceae	-			
	Quercus agrifolia var. agrifolia	coast live oak	Ν	
Geraniaceae				
	Erodium botrys	big heron bill	Ι	
	Erodium cicutarium	coastal heron's bill	Ι	
	Erodium moschatum	white stemmed filaree	Ι	
	Geranium molle	Crane's bill geranium	I	
	Pelargonium x hortorum	garden geranium	0	

Vascular Plant Species Observed within the Santa Barbara Metropolitan Transit District Calle Real Property (APNs 59-140-004, 59-140-005, 59-140-006, 67-230-026) Santa Barbara County, California

4.2

Juglandaceae	Juglans californica	Southern California black walnut	N
<u>Lamiaceae</u>	S-luis laurantha	Manison bush some	0
Malvaceae	Saivia leucantna	Mexican bush sage	0
Myoporaceae	Malva parviflora	cheesweed	Ι
Myrsinaceae	Myoporum laetum	Ngaio tree	0
Myrtaceae	Lysimachia arvensis	scarlet pimpernel	Ι
	Callistemon citrinus Eucalyptus globulus	crimson bottlebrush blue gum	O I
<u>Nyctaginaceae</u>	Bougainvillea sp.	bougainvilla	0
<u>Oleaceae</u>	Franciscus 1-sifelia	Oragon ash	0
	Praxinus iaujoua	olive	0
Onegrages	Olea europaea	onve	0
Onagraceae	Qenothera sinuosa	wayy-leaved gaura	T
Oxalidaceae	ocnomera sinaosa	wavy leaved gadra	1
Onunduceue	Oxalis pes-caprae	Bermuda buttercup	Ι
Papaveraceae	1 1	Ĩ	
	Eschscholzia californica	California poppy	Ν
Plumbaginaceae			
	Limonium sinuatum	statice	Ι
	Plumbago auriculata	blue plumbago	0
D.1	Plantago lanceolata	English plantain	Ι
Polygonaceae	Eniana and familiation was familiation	California hualuuhaat	N
	Eriogonum jasciculatum var. jasciculatum	california buckwneat	N
Salicaceae	Kumex Crispus	curry dock	1
Salanaceae	Salix lasiolepis	arroyo willow	Ν
Solallaceae	Datura wrightii	jimson weed	N
	Nicotiana slauca	tree tobacco	I
Ulmaceae	Theorem guarde		1
Ciniaccae	Ulmus parvifolia	Chinese elm	0
	ANGIOSPERMS- Monocots		
Asphodelaceae			
_	Asphodelus fistulosus	onionweed	Ι
Cyperaceae			
T.: 1	Cyperus eragrostis	tall flatsedge	Ν
Iridaceae	Simulation hallow	blue avad grass	N
Liliaceae	Sisymenium benum	blue-eyeu grass	1
Linuceue	Agapanthus praecox	African lilv	I
Poaceae	0.1		-
	Arundo donax	giant reed	Ι
	Avena fatua	wild oats	Ι
	Bromus catharticus	rescue grass	Ι
	Bromus diandrus	ripgut brome	Ι
	Bromus hordeaceus	soft chess	Ι
	Bromus madritensis ssp. rubens	red brome	Ι
	Cortaderia jubata	pampas grass	Ι
	Cynodon dactylon	Bermuda grass	I
	Festuca perennis	Italian ryegrass	I
	Hordeum murinum var. leporinum	hare barley	1
	Pennisetum setaceum	tountain grass	I
	supa muacea var. muacea	sinno grass	1

Notes:

Scientific nomenclature follows The Jepson Manual: Vascular Plants of California, Second Edition, Baldwin et al. (2012). Origin Codes:

N = Native to Region

I = Introduced to Region (Non-native species which have become naturalized or persist without cultivation).

O = Ornamental/Landscaping (Non-native species that have been planted or are escaped cultivars).

California Rare Plant Rank:

Species in bold type are listed as rare, threatened, or endangered by the California Native Plant Society (CNPS 2018).

APPENDIX C WILDLIFE INVENTORY

Wildlife Species Observed within the "MTD Site", 4678 Calle Real/149 N. San Antonio Road (APNs 59-140-004, 59-140-005, 59-140-006, 67-230-026), Santa Barbara County, California

Common Name	Scientific Name	Regulatory Status
Reptiles		
Western Fence Lizard	Sceloporus occidentalis	N/A
Birds		
Turkey Vulture	Cathartes aura	MTBA
Red-shouldered Hawk	Buteo lineatus	MTBA
Red-tailed Hawk	Buteo jamaicensis	MTBA
Western Gull	Larus occidentalis	MTBA
Eurasian Collared-Dove	Streptopelia decaocto	MTBA
Anna's Hummingbird	Calypte anna	MTBA
Acorn Woodpecker	Melanerpes formicivorus	MTBA
Black Phoebe	Sayornis nigricans	MTBA
Say's Phoebe	Sayornis saya	MTBA
Cassin's Kingbird	Tyrannus vociferans	MTBA
Western Kingbird	Tyrannus verticalis	MTBA
Western Scrub-jay	Aphelocoma californica	MTBA
American Crow	Corvus brachyrhynchos	MTBA
Northern Rough-winged Swallow	Stelgidopteryx serripennis	MTBA
Oak Titmouse	Baeolophus inornatus	MTBA
Bushtit	Psaltriparus minimus	MTBA
Blue-gray Gnatcatcher	Polioptila caerulea	MTBA
Northern Mockingbird	Mimus polyglottos*	MTBA
California Towhee	Pipilo crissalis	MTBA
White-crowned Sparrow	Zonotrichia leucophrys	MTBA
Song Sparrow	Melospiza melodia	MTBA
Dark-eyed Junco	Junco hyemalis	MTBA
Western Meadowlark	Sturnella neglecta	MTBA
House Finch	Carpodacus mexicanus	MTBA
Mammals		
Califronia Ground Squirrel	Otospermophilus beecheyi	N/A

Regulatory Status Codes:

FE – Federal endangered species
FT -- Federal threatened species
FC – Federal candidate species
MBTA – Migratory Bird Treaty Act
SE – State endangered species
ST – State threatened species
CSC – California Species of Special Concern
CFP – California Fully Protected Species
MMPA - Marine Mammal Protection Act