

2.3. Biological Resources

This section addresses potential biological resources impacts that may result from construction and/or operation of the Safari Highlands Ranch (SHR) project. The following discussion addresses the existing biological resources conditions of the affected environment, evaluates the SHR project’s consistency with applicable goals and policies, identifies and analyzes environmental impacts, and recommends measures to reduce or avoid adverse impacts anticipated from implementation of the project, as applicable.

The analysis in this section is based on the biological technical report prepared by Merkel & Associates, Inc. and Althouse and Meade, Inc. (2017) and the Multiple Species Conservation Program (MSCP) Consistency Analysis Report prepared by Merkel & Associates, Inc. (2017), both included in **Appendix 2.3**. The biological report was peer reviewed by Michael Baker International.

The table below summarizes the biological resources significance determinations detailed in **Section 2.3.5**.

Summary of Biological Resources Impacts

Threshold Number	Issue	Determination	Mitigation Measures	Impact After Mitigation
1	Special-Status Plant and Wildlife Species	Potentially Significant Impact	BIO-1, BIO-2, BIO-8, BIO-9, BIO-10, BIO-11, BIO-12, BIO-13	Less than Significant Impact
2	Riparian Habitat and Other Sensitive Natural Communities	Potentially Significant Impact	BIO-1, BIO-2, BIO-7, BIO-10, BIO-11, BIO-12, BIO-13	Less than Significant Impact
3	Federally Protected Wetlands	Potentially Significant Impact	BIO-4, BIO-5, BIO-6, BIO-11, BIO-12, BIO-13	Less than Significant Impact
4	Wildlife Movement Corridors and Nursery Sites	Less than Significant Impact	None required	Less than Significant Impact
5	Local Policies and Ordinances	Potentially Significant Impact	BIO-1, BIO-7	Less than Significant Impact
6	Habitat Conservation Plans and Natural Community Conservation Plans	Less than Significant Impact	None required	Less than Significant Impact

2.3.1. Existing Conditions

Physical and Biological Setting

The SHR project site is located in the inland foothills and valleys of San Diego County. Topographical elements on-site consist of a rolling hills, rock outcroppings, and steep topography dissected by drainage courses that drain primarily to the southwest. On-site elevations range from approximately 400 feet above mean sea level (amsl) to 1,800 feet amsl.

The project area experiences a Mediterranean-type climate, with a rainy winter season followed by a hot, dry summer. Spring and fall months tend to be mild in temperature with variable rainfall. The site is in the climate transition zone where the effects of changes in elevation on temperature and rainfall influence vegetation and species distributions.

Soils on-site and in the vicinity consist of a series of sandy loam, coarse sandy loam, sand, and steep gullied land (Merkel & Associates, Inc. and Althouse and Meade, Inc. 2017). Sandy loam and coarse sandy loam soils in the following soil series are present: Cieneba Fallbrook rocky, sandy loams with 30–65 percent eroded slopes, and Cieneba very rocky, coarse sandy loams with 30–70 percent slopes. Smaller inclusions supporting Vista coarse, sandy loams with 15–30 percent slopes; Vista rocky, sandy loam with 5–15 percent slopes; Fallbrook rocky, sandy loam with 9–30 percent eroded slopes; Vista rocky, sandy loams with 15–30 percent slopes; and Vista coarse, sandy loams with 9–15 percent slopes are also present.

Since 1910, the project site has experienced a number of significant wildfire events. The site was burned completely in the 1910s, 1950s, 1993 (Guejito fire), and 2007 (Witch fire) events, and was partially burned in the 1930s (Dudek 2017, Merkel & Associates, Inc.).

Vegetation Communities

Vegetation communities and habitat types that are found in the project biological study area (BSA) consisting of the project site, 100-foot survey buffer area, and proposed off-site improvement areas occur predominately in the form of native habitats. This 100-foot survey buffer is not a part of the project property or proposed project and is provided only for context, except in a few areas where the proposed off-site facilities cross through this buffer. Refer to the project biological technical report in **Appendix 2.3** for a detailed description of the survey methodologies used to determine the potential presence of biological resources on- and off-site.

Vegetation communities that are found in the project BSA consist predominately of native habitats; refer to **Figures 2.3-1A, 2.3-1B, and 2.3-1C**. The only areas characterized as disturbed habitat consist of existing dirt roads/paths throughout the BSA. Acreages of each habitat type within the BSA are listed in **Table 2.3-1**.

Table 2.3-1. Vegetation within Safari Highlands Ranch Project Biological Study Area

Vegetation Communities	Holland Code or Sawyer Keeler-Wolf Alliance	Project Site (acres)	Off-site (acres)	Total Project: On-site and Off-site (acres)	100-ft Project Buffer (acres)*
Ragweed Mesic Meadow	<i>Ambrosia psilostachya</i> Herbaceous Alliance	1.29	0.00	1.29	0.18
Mulefat Scrub	63310	1.87	0.02	1.89	4.22
Oak Riparian Woodland	61310	19.95	0.50	20.45	1.09
Oak Woodland	71160	5.01	0.00	5.01	0.27
Cactus Scrub	Coast Prickly Pear Scrub	0.63	0.00	0.63	0.00
Diegan Coastal Sage Scrub (includes rock outcroppings)	32520	561.95	12.88	574.83	48.49
Coastal Sage-Chaparral Transition (includes rock outcroppings)	37G00	67.70	0.00	67.70	0.00
Southern Mixed Chaparral (includes rock outcroppings)	37131	420.10	4.22	424.32	36.44
Non-Native Grassland	42200	7.88	0.00	7.88	0.00
Disturbed Habitat	11300	11.26	7.58	18.84	1.21
Agriculture Intensive	18100	0.00	2.14	2.14	0.00
Developed	12000	0.97	5.86	6.83	2.83
Total**		1,098.61	33.20	1,131.81	94.73

* This buffer is not a part of the project site and is provided only for context, with exception of a few locations where the proposed off-site facilities cross through this buffer.

** Totals may reflect minor differences from the summation of areas in the table due to rounding of values.

Sensitive Habitats

Sensitive habitats include:

- Areas of special concern to resource agencies;
- Areas which provide habitat for rare or endangered species which meet the definition of Section 15380 of the California Environmental Quality Act (CEQA) Guidelines;
- Areas designated as sensitive natural communities by the California Department of Fish and Wildlife (CDFW);
- Areas outlined in California Fish and Game Code (FGC) Section 1600;
- Areas regulated under Clean Water Act (CWA) Section 404;
- Areas protected under CWA Section 401; and
- Areas protected under local regulations and policies.

“Critical habitat” is a term from the federal Endangered Species Act (ESA) designed to guide actions by federal agencies (as opposed to state, local, or other agency actions) and defined as “an area occupied by a species listed as threatened or endangered within which are found

physical or geographical features essential to the conservation of the species, or an area not currently occupied by the species which is itself essential to the conservation of the species.” Critical habitat is designated by the US Fish and Wildlife Service (USFWS). The project site is not located within or adjacent to any designated critical habitat (Merkel & Associates, Inc. and Althouse and Meade, Inc. 2017).

Jurisdictional Resources

Jurisdictional waters of the State and waters of the United States, along with isolated wetlands, serve a variety of functions for plants and wildlife. Wetlands and other water features may provide habitat, foraging, cover, and migration and movement corridors for special-status and/or common species. In addition to habitat functions, these features may physically convey surface water flows and/or provide wetland functions and values such as groundwater recharge and streambed stabilization.

The project site contains jurisdictional resources; refer to **Figures 2.3-2A, 2.3-2B, and 2.3-2C**. Routine wetland delineations, following the guidelines set forth by the United States Army Corps of Engineers (USACOE) (1987 and 2008), were performed by URS Corporation in 2014 and 2015 with one area updated by Merkel & Associates, Inc. to gather field data at potential jurisdictional resources within the focal survey area, as provided in the project biological technical report; refer to **Appendix 2.3** for a description of the survey methodologies. The extent of USACOE jurisdictional waters was delineated by the ordinary high-water mark and any adjacent federal wetland areas that met all three of the USACOE wetland parameters. CDFW regulated streambed and associated adjacent riparian habitat as well as CDFW and/or County-of San Diego defined wetlands were also delineated. CDFW streambeds were delineated by the lateral limits of the streambed from bank to bank in addition to the lateral limits of the adjacent associated riparian habitat, if present. The delineation of CDFW and/or County wetlands is based on the presence of one out of three wetland parameters.

A total of 1.29 acres of ragweed mesic meadow, a federal wetland that met the three-parameters for USACOE wetlands, was the only federal wetland regulated by USACOE identified on the project site. This wetland would also be regulated by the San Diego Regional Water Quality Control Board (RWQCB), CDFW, and the County. A total of 1.89 acres of mulefat scrub is present in the southwest corner of the property and continues off-site. This community did not meet all three of the federal wetland parameters; however, it would be a State and County jurisdictional resource. There are 20.45 acres of oak riparian woodland associated with the on-site non-wetland waters of the U.S./streambeds that would be considered adjacent riparian habitat that is regulated by the CDFW and County. The total acreage of federal non-wetland water of U.S. within the project site is 0.63 acre. Delineated streambeds/drainages regulated by CDFW and County total 0.78 acre within the project site. (Merkel & Associates, Inc. and Althouse and Meade, Inc. 2017); refer to Table 7 in **Appendix 2.3**, which summarizes the jurisdictional resources within the project site.

Special-Status Species

Candidate, sensitive, or special-status species are commonly characterized as species that are at potential or actual risk to their persistence in a given area or across their native habitat.

These species have been identified and assigned a status ranking by governmental agencies such as the CDFW or the USFWS and private organizations such as the California Native Plant Society (CNPS). The degree to which a species is at risk of extinction is the determining factor in the assignment of a status ranking. Some common threats to a species' or population's persistence include habitat loss, degradation, and fragmentation, as well as human conflict and intrusion. For purposes of the biological review, special-status species are defined by the following codes:

- Listed, proposed, or candidates for listing under the Federal Endangered Species Act (50 Code of Federal Regulations [CFR] 17.11 – listed; 61 Federal Register [FR] 7591, February 28, 1996, candidates)
- Listed or proposed for listing under the California Endangered Species Act (FGC 1992 Section 2050 et seq.; 14 California Code of Regulations [CCR] Section 670.1 et seq.)
- Designated as Species of Special Concern by the CDFW
- Designated as Fully Protected by the CDFW (FGC Sections 3511, 4700, 5050, and 5515)
- Species that meet the definition of rare or endangered under CEQA (14 CCR Section 15380) including CNPS List Rank 1b and 2

Existing literature/data pertaining to the project area was reviewed prior to the initiation of the field investigation. This literature/data review included: a determination of the potential soils types on-site; a query of sensitive species with a potential to occur on-site based on a determination of the site's physical and biological characteristics; a query of existing documents for the project study area; and review of California Natural Diversity Database (CNDDDB 2017) and USFWS GIS 2016 records for the project vicinity.

Sensitive Plants

No federally or state listed plant species or MSCP narrow endemic plant species occur within the project site or are expected to occur on-site. Based primarily on direct observations during focused rare plant surveys on-site in 2014 and 2015, the BSA supports the following eight (8) sensitive plant species: Brewer's redmaids, Cooper's rein orchid, delicate clarkia, golden-rayed pentachaeta, Engelmann oak, rush-like bristleweed, San Diego sagewort, and spiny rush; refer to **Figures 2.3-1A, 2.3-1B, and 2.3-1C**. None of the plant species observed are listed under the federal or state ESAs. In addition, based on the results of the literature search, suitable habitat, soils, micro-habitat/conditions, historical records on-site or in the vicinity, the potential of occurrence for additional sensitive plant species within the BSA was assessed. Appendix A of **Appendix 2.3** includes the full results of the botanical surveys, database inquiry and the potential for occurrence of each sensitive plant species within the BSA.

Sensitive Wildlife

Based on direct observations or detections during relatively recent biological surveys on-site in 2014, 2015, and 2017, the BSA supports 15 sensitive wildlife species (Merkel & Associates, Inc. and Althouse and Meade, Inc. 2017); refer to **Figures 2.3-1A, 2.3-1B, and 2.3-1C**. These observed species consist of coastal California gnatcatcher, coastal cactus wren, orange-throated whiptail, San Diego horned lizard, coastal rosy boa, red diamond rattlesnake, western

spadefoot toad, Cooper's hawk, rufous-crowned sparrow, turkey vulture, loggerhead shrike, western bluebird, mountain lion, southern mule deer, and monarch butterfly. In addition, based on the results of the literature search, suitable habitat, micro-habitat/conditions, historical records on-site or in the vicinity, the potential of occurrence for additional sensitive animal species within the BSA was assessed. Appendix B of **Appendix 2.3** includes the full results of the wildlife surveys, database inquiry, and the potential for occurrence of each sensitive wildlife species within the BSA.

2.3.2. Regulatory Framework

Federal

Endangered Species Act

The federal Endangered Species Act provides the legal framework for the listing and protection of species (and their habitats) identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered a 'take' under the Endangered Species Act. Take of a federally listed threatened or endangered species is prohibited without a special permit. The ESA allows for take of a threatened or endangered species incidental to development activities once a habitat conservation plan has been prepared to the satisfaction of the USFWS and an incidental take permit has been issued. The ESA also allows for the take of threatened or endangered species after consultation has deemed that development activities will not jeopardize the continued existence of the species. The federal ESA also provides for a Section 7 Consultation when a federal permit is required, such as a Clean Water Act Section 404 permit.

“Critical Habitat” is a term within the federal Endangered Species Act designed to guide actions by federal agencies (as opposed to state, local, or other agency actions) and defined as “an area occupied by a species listed as threatened or endangered within which are found physical or geographical features essential to the conservation of the species, or an area not currently occupied by the species which is itself essential to the conservation of the species.”

Clean Water Act

Section 401 of the federal Clean Water Act requires any applicant for a federal license or permit that is conducting any activity that may result in a discharge of a pollutant into waters of the United States to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards. The appropriate RWQCB regulates Section 401 requirements.

CWA Section 404 prohibits the discharge of dredged or fill material into waters of the United States without a permit from the USACOE. The USACOE and the US Environmental Protection Agency (EPA) administer the act. In addition to streams with a defined bed and bank, the definition of waters of the United States includes wetland areas “that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3 7b). The lateral extent of non-tidal waters is determined by delineating the ordinary high water mark (33 CFR Section 328.4[c][1]).

If adjacent wetlands occur, the limits of jurisdiction extend beyond the ordinary high water mark to the outer edge of the wetlands. The presence and extent of wetland areas are normally determined by examination of the vegetation, soils, and hydrology of a site. The majority of jurisdictional wetlands exhibit three wetland criteria: hydrophytic vegetation, wetland hydrology, and hydric soils.

Substantial impacts to jurisdictional wetlands may require an individual permit. Small-scale projects may require a nationwide permit, which typically has an expedited process compared to the individual permit process. Mitigation of wetland impacts is required as a condition of the 404 permit and may include on-site preservation, restoration, and/or enhancement and/or off-site restoration or enhancement. The characteristics of the restored or enhanced wetlands must be equal to or better than those of the affected wetlands to achieve no net loss of wetlands.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the United States and other nations devised to protect migratory birds, their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the Fish and Game Code.

All raptors and their nests are protected from take or disturbance under the MBTA (16 USC Section 703 et seq.) and California statute (FGC Section 3503.5).

Eagle Protection Act

In addition to the MBTA protections, the golden eagle and bald eagle are afforded additional protection under the Eagle Protection Act, amended in 1973 (16 USC Section 669 et seq.).

State

California Endangered Species Act

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

State Water Resources Control Board/Regional Water Quality Control Board

For waters of the State that are federally regulated under the CWA, the State Water Resources Control Board (SWRCB) [through its RWQCBs] must provide state water quality certification pursuant to section 401 of the CWA for activities requiring a federal permit or license that

may result in discharge of pollutants into waters of the U.S. Where no federal jurisdiction exists over waters of the State, the SWRCB (through its RWQCBs) retains regulatory authority to protect water quality through provisions of the Porter-Cologne Water Quality Control Act through application for or waiver of waste discharge requirements.

California Fish and Game Code

Native Plant Protection Act

The Native Plant Protection Act (FGC Sections 1900–1913) prohibits the take, possession, or sale within the state of any plants with a state designation of rare, threatened, or endangered (as defined by the CDFW). An exception in the act allows landowners, under specified circumstances, to take listed plant species, provided that the owners first notify the CDFW and give that state agency at least 10 days to retrieve the plants before they are plowed under or otherwise destroyed (FGC Section 1913). Project impacts to these species are not considered significant unless the species are known to have a high potential to occur within the area of disturbance associated with construction of the proposed project.

Birds of Prey

Under FGC Section 3503.5, it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.

“Fully Protected” Species

California statutes also afford “fully protected” status to a number of specifically identified birds, mammals, reptiles, and amphibians. These species cannot be taken, even with an incidental take permit. FGC Section 3505 makes it unlawful to take “any egret or egret, osprey, bird of paradise, gaura, numidi, or any part of such a bird.” FGC Section 3511 protects from take the following fully protected birds: (a) American peregrine falcon; (b) brown pelican; (c) California black rail; (d) California clapper rail; (e) California condor; (f) California least tern; (g) golden eagle; (h) greater sandhill crane; (i) light-footed clapper rail; (j) southern bald eagle; (k) trumpeter swan; (l) white-tailed kite; and (m) Yuma clapper rail.

FGC Section 4700 identifies the following fully protected mammals that cannot be taken: (a) Morro Bay kangaroo rat; (b) bighorn sheep, except Nelson bighorn sheep; (c) northern elephant seal; (d) Guadalupe fur seal; (e) ring-tailed cat; (f) Pacific right whale; (g) salt-marsh harvest mouse; (h) southern sea otter; and (i) wolverine.

FGC Section 5050 protects from take the following fully protected reptiles and amphibians: (a) blunt-nosed leopard lizard; (b) San Francisco garter snake; (c) Santa Cruz long-toed salamander; (d) limestone salamander; and (e) black toad.

FGC Section 5515 identifies certain fully protected fish that cannot lawfully be taken, even with an incidental take permit. The following species are protected in this fashion: (a) Colorado River squawfish; (b) thicketail chub; (c) Mohave chub; (d) Lost River sucker; (e) Modoc sucker; (f) shortnose sucker; (g) humpback sucker; (h) Owens River pupfish; (i) unarmored threespine stickleback; and (j) rough sculpin.

Sensitive Vegetation Communities

Sensitive vegetation communities are natural communities and habitats that are unique, of relatively limited distribution in the region, or of particularly high wildlife value. These resources have been defined by various federal, state, and local conservation plans, policies, or regulations. The CDFW ranks sensitive communities as threatened or very threatened and keeps records of their occurrences in the California Natural Diversity Database (CNDDDB). The CDFW also identifies sensitive vegetation communities on its List of California Natural Communities Recognized by the CNDDDB. Impacts to sensitive natural communities and habitats identified in local or regional plans, policies, and regulations, or by federal or state agencies, must be considered and evaluated under CEQA.

Species of Special Concern

Species of special concern are broadly defined as animals not listed under the CESA, but which are nonetheless of concern to the CDFW because they are declining at a rate that could result in listing, or historically occurred in low numbers and known threats to their persistence currently exist. This designation is intended to result in special consideration for these animals by the CDFW, land managers, consulting biologists, and others, and is intended to focus attention on the species to help avert the need for listing under the CESA and recovery efforts that might ultimately be required. This designation also is intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species and to focus research and management attention on them. Although these species generally have no special legal status, they are given special consideration under CEQA during project review. Species of special concern are included in the list of Special Animals List tracked by the CNDDDB.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act defines waters of the state as “any surface water or groundwater, including saline waters, within the boundaries of the state.” The RWQCB protects all waters in its regulatory scope, but has special responsibility for isolated wetlands and headwaters. These water bodies have high resource value, are vulnerable to filling, and may not be regulated by other programs, such as CWA Section 404. The RWQCB regulates waters of the state under the Water Quality Certification Program, which regulates discharges of dredged and fill material under CWA Section 401 and the Porter-Cologne Water Quality Control Act.

Projects that require a USACOE permit, or fall under other federal jurisdiction, and have the potential to impact waters of the state are required to comply with the terms of the Water Quality Certification Program. If a proposed project does not require a federal license or permit, but involves activities that may result in a discharge of harmful substances to waters of the State, the RWQCB has the option to regulate such activities under its state authority in the form of waste discharge requirements or certification of waste discharge requirements.

Lake and Streambed Alteration Program

FGC Section 1602 requires any person, state, or local governmental agency to notify the CDFW prior to initiating any activity that would: (1) divert or obstruct the natural flow of or substantially change or remove material from the bed, channel, or bank of any river, stream, or lake; or (2) result in the disposal or deposition of debris, waste, or other material into any

river, stream, or lake. The state definition of “lakes, rivers, and streams” includes all rivers or streams that flow at least periodically or permanently through a well-defined bed or channel with banks that support fish or other aquatic life, and watercourses with surface or subsurface flows that support or have supported riparian vegetation.

Natural Community Conservation Planning Act of 1991

The Natural Community Conservation Planning Act is aimed at conservation of natural communities at the ecosystem scale while allowing for compatible land uses. The CDFW is primarily responsible for implementation of the act, which is intended to allow comprehensive protection and management of wildlife species and provides for regional protection of natural wildlife diversity while allowing appropriate land development.

Regional/ Local

County of San Diego Multiple Species Conservation Program

The Multiple Species Conservation Program is a comprehensive subregional habitat conservation planning program that was adopted in 1998 for a 900-square mile area in southwestern San Diego County including the following jurisdictions: County of San Diego, City of San Diego, Poway, Santee, El Cajon, La Mesa, Lemon Grove, National City, Chula Vista, Imperial Beach, Coronado, and Del Mar. This subregional MSCP Plan along with the Subarea Plans adopted by the signatory jurisdictions serves as a multiple species Habitat Conservation Plan pursuant to Section 10(a)(1)(B) of the federal Endangered Species Act and a Natural Community Conservation Plan (NCCP) pursuant to the current California NCCP Act and the state Endangered Species Act. As part of the implementation of the NCCP, local agencies have adopted a Subarea Plan or are in the process of preparing a Subarea Plan. Subarea Plans approved under the NCCP allow “take” of various sensitive species through specific conditions of coverage under an Implementing Agreement and permit issued under section 10 of the ESA. The goal of the Subarea Plans are to maintain and enhance biological diversity in the region and maintain viable populations of endangered, threatened, and key sensitive species and their habitats while promoting regional economic viability through streamlining the land use permit process.

In the interim period when NCCP enrolled jurisdictions are actively developing their respective Subarea Plans, a special rule under Section 4(d) of the ESA provides for incidental take of coastal California gnatcatcher through the Habitat Loss Permit process for activities conducted in accordance with the NCCP Conservation Guidelines and Process Guidelines. Those enrolled jurisdictions that are not adequately progressing in actively developing their Subarea Plans to the satisfaction of USFWS have been notified in a letter from USFWS dated November 2, 2007 that USFWS will no longer concur on requested NCCP 4(d) Rule Habitat Loss Permits.

County Subarea Plan and Biological Mitigation Ordinance

The County of San Diego has an adopted South County MSCP Subarea Plan dated October 22, 1997 that implements the MSCP within three identified segments of the unincorporated areas of San Diego. The County is also in the process of preparing a draft North County MSCP Subarea Plan to implement the MSCP in the northern portions of San Diego County.

The adopted MSCP is regulated by the County Biological Mitigation Ordinance (BMO). It is expected that if the draft North County MSCP is adopted, it will also be regulated by the BMO which outlines the specific criteria (e.g., project design, impact allowances, and mitigation requirements) for projects within the MSCP boundary. The adopted and draft County MSCP Subareas include identified Pre-Approved Mitigation Areas (PAMAs) within which conservation efforts are to be concentrated and a preserve can be assembled. The MSCP generally provides incentives for development to occur outside of a PAMA but does allow for development that meets criteria within a PAMA.

The southern half of the Safari Highlands Ranch project site is within the subarea for the County's approved South County MSCP and existing PAMA. The northern half of the site is located in the draft North County MSCP planning area within a proposed PAMA.

City of San Diego Subarea Plan

The City of San Diego has an adopted MSCP Subarea Plan dated March 1997. The proposed Safari Highlands Ranch project proposes off-site southern emergency access road improvements to an existing roadway within the City of San Diego MSCP Subarea located directly south of the project site. These proposed off-site road improvements will be guided by the City of San Diego's adopted MSCP Subarea Plan.

Multiple Habitat Conservation Plan (MHCP)

The MHCP is a comprehensive subregional habitat conservation planning program that was adopted in 2003 for a 175 square mile area in northwestern San Diego County including the following jurisdictions: Oceanside, Vista, Carlsbad, San Marcos, Escondido, Encinitas, and Solana Beach.

City of Escondido Draft MHCP Subarea Plan

The City of Escondido has an unadopted draft MHCP Subarea Plan dated June 2001 and does not have an Implementing Agreement or incidental take permit. Therefore, this draft Subarea Plan is not specifically applicable to any potential projects under discretionary review, although it may be referred to as a guideline. Further, based on the 2007 USFWS letter regarding non-concurrence of NCCP 4(d) rule Habitat Loss Permits, the City of Escondido has not progressed on actively developing their draft Subarea Plan and therefore, the USFWS will not concur on interim incidental take of coastal California gnatcatcher through the Habitat Loss Permit process, thus rendering the Subarea Plan ineffective to address gnatcatcher and coastal sage scrub impacts. Notwithstanding, the regulatory function of the unadopted draft City of Escondido MHCP Subarea Plan has been used as one tool for assessment of conservation design in this document.

The City of Escondido draft Subarea Plan specifies in Section 6.6 for Annexations that future annexations of land to the City of Escondido must be covered by the requirements of an NCCP Subarea Plan. It further states that if an approved County Subarea Plan and implementing agreement exists for the area being annexed, the approved County Subarea Plan applies. In the case of the Safari Highlands Ranch project site, the County's adopted South County MSCP Subarea Plan applies for the southern half of the project site. Within the northern portion of the project site that occurs in the unadopted North County MSCP Subarea, the City of Escondido would work cooperatively with the County and Wildlife

Agencies to ensure consistency with the applicable provisions related to conservation design in both the City of Escondido's unadopted draft Subarea Plan and the County's adopted and unadopted MSCP Subarea Plans. Finally, the City of Escondido would be responsible for ensuring that any project level conservation plan is implemented following annexation to the City.

MSCP/MHCP Summary

Because the project site presently straddles both adopted and unadopted conservation plan under the County MSCP and is proposed to be annexed into the City where an unadopted and inactive draft subarea plan has been prepared under an adopted MHCP subregional plan, the conservation planning environment for the site is complex. As a result, the analyses in this EIR consider the most stringent applicable criteria/standards and mitigation ratios of any of the plans, adopted or unadopted.

The base analysis makes use of the adopted South County MSCP criteria/standards and mitigation ratios and is further analyzed for consistency in the project MSCP Consistency Analysis Report as an appendix to this biological report. Although the project generally applies the criteria/standards and mitigation ratios from the approved South County MSCP and analyzes consistency with the adopted South County MSCP, North County MSCP Planning Agreement, and adopted City of San Diego MSCP, the project is also consistent with the draft City of Escondido Subarea Plan as well as the MHCP.

Based on this approach, it has been determined that all of the MSCP criteria/standards and mitigation ratios applicable to the project are provided in the adopted South County MSCP Subarea Plan, with one exception regarding the mitigation ratio for oak riparian woodland/oak woodland impacts. The City of Escondido's draft MHCP Subarea Plan mitigation ratio of 3:1 for impacts to oak woodland/Habitat Group B is greater than the adopted County's mitigation ratio of 2:1 for same habitat; therefore, the project proposes to apply the 3:1 mitigation ratio for impacts to oak woodland since this mitigation ratio is the most stringent for this habitat type among all the applicable adopted and unadopted MSCPs/MHCPs.

City of Escondido General Plan

The City's General Plan is intended to identify biologically important open space areas and establish policies for developing a comprehensive system that includes natural areas in concert with the NCCP, as well as existing and planned park and trail recreational amenities. The following policies are relevant to the project:

Chapter VII. Resource Conservation Element

GOAL 1: Preservation and enhancement of Escondido's open spaces and significant biological resources as components of a sustainable community.

Biological and Open Space Resources Policy 1.1

Establish and maintain an interconnected system of open space corridors, easements, trails, public/quasi-public land, and natural areas that preserves sensitive lands, permanent bodies of water, floodways, and slopes over 35 percent, and provides for wildlife movement.

Biological and Open Space Resources Policy 1.2

Maintain open space and rural residential uses around the perimeter of the city to serve as a buffer from the surrounding urbanizing areas.

Biological and Open Space Resources Policy 1.3

Protect land areas with steep topography (generally over 25%) from intensive urban development, regulate development in areas with topographic constraints such as steep slopes, and include these areas within the overall open space system.

Biological and Open Space Resources Policy 1.4

Coordinate the planning and development of the overall open space system with other public facilities and services within Escondido.

Biological and Open Space Resources Policy 1.5

Participate in the planning and preservation of an interconnected biological resources and open space plan with appropriate federal, state, and local agencies that enhances the viability of the regional ecosystem.

Biological and Open Space Resources Policy 1.6

Preserve and protect significant wetlands, riparian, and woodland habitats as well as rare, threatened or endangered plants and animals and their habitats through avoidance. If avoidance is not possible, require mitigation of resources either on- or off-site at ratios consistent with state and federal regulations, and in coordination with those agencies having jurisdiction over such resources.

Biological and Open Space Resources Policy 1.7

Require that a qualified professional conduct a survey for proposed development projects located in areas potentially containing significant biological resources to determine their presence and significance. This shall address any flora or fauna of rare and/or endangered status, declining species, species and habitat types of unique or limited distribution, and/or visually prominent vegetation.

Biological and Open Space Resources Policy 1.8

Require that proposed development projects implement appropriate measures to minimize potential adverse impacts on sensitive habitat areas, such as buffering and setbacks. In the event that significant biological resources are adversely affected, consult with appropriate state and federal agencies to determine adequate mitigation or replacement of the resource.

Biological and Open Space Resources Policy 1.9

Encourage proposed development projects to minimize the removal of significant stands of trees unless needed to protect public safety and to limit tree removal to the minimum amount necessary to assure continuity and functionality of building spaces.

Biological and Open Space Resources Policy 1.10

Prohibit any activities in riparian areas other than those permitted by appropriate agencies to protect those resources.

Biological and Open Space Resources Policy 1.11

Construct appropriate barriers to be maintained by property owners or homeowners' associations that restrict access to areas containing sensitive biological resources.

Biological and Open Space Resources Policy 1.12

Promote the use of native plants for public and private landscaping purposes within the city.

City of Escondido Zoning Code

Consistent with the goals and objectives of the General Plan Resource Conservation Element, and the Public Lands/Parks General Plan land use designation, the City maintains an Open Space (OS) zone (Article 3, Sections 33-40 through 33-43 of the Zoning Code). The OS zone is intended to provide for permanent open space within the community and restricts lands zoned as such to agriculture, common open space, land bank and mitigation sites, schools, public recreational uses, and public utilities. Conditional uses include radio and television towers, retreat centers and camps, equestrian centers, firearms and archery ranges, and private recreational uses are also allowed in the OS zone. In the case of the SHR project, the proposed habitat conservation open space would provide permanent biological conservation of habitat in perpetuity and would not allow any of the permitted uses listed above that would conflict with habitat conservation for biological purposes.

Additionally, the Flood Plain Overlay zone provides land use regulations for property located in the designated floodplain of a river, creek, stream, or water course. The overlay zone supplements the existing underlying land use zone applied to a property and restricts development within the flood plain that would potentially result in alteration of the stream channel, affect floodway capacity, or increase floodwater heights.

Article 55, Section 33-1069 includes vegetation and replacement standards for impacts to mature and/or protected trees. Section 33-1052 defines a mature tree as any self-supporting woody perennial plant, native or ornamental, with a single well-defined stem or multiple stems supporting a crown of branches. The single stem, or one of the multiple stems of any mature oak tree, shall have a diameter of 4 inches or greater when measured at diameter breast height (DBH) above the tree's natural grade. All other mature trees shall have a diameter of 8 inches DBH, or greater, for a single stem or one of the multiple stems. A protected tree is defined as any oak that has a 10-inch or greater DBH, or any other species or individual specimen listed on the local historic register, or determined to substantially contribute to the historic character of a property or structure listed on the local historic register, pursuant to Article 40 of the Escondido Zoning Code.

City of Escondido Master Plan for Parks, Trails, and Open Space

The City's Master Plan for Parks, Trails, and Open Space guides development of a comprehensive open space system intended to achieve quality of life standards identified in the General Plan. The plan identifies a conceptual wildlife corridor to connect key habitat along the city's perimeter. Other tributary corridors are also identified to provide connection between undeveloped, unincorporated county areas to the north and east of the city. The Master Plan is intended to provide means of coordination with local landowners for the conservation of land for use as wildlife corridors when development is proposed. The Master

Plan provides guidance on the appropriate width and/or location of such corridors and for assessing biological conditions and resources that may be affected. The City monitors the overall corridor to ensure that effective connections are maintained.

2.3.3. Thresholds for Determination of Significance

City of Escondido Environmental Quality Regulations (Zoning Code Article 47) and Appendix G of the CEQA Guidelines as amended contain analysis guidelines related to the assessment of biological resources. A project would result in a significant impact if it would:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service.
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service.
3. Have 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.
4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
5. Conflict with any local policies or ordinances protecting biological resources such as a tree preservation policy or ordinance.
6. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

It should be noted that a number of project design features contribute to reducing potential direct and indirect effects on biological resources that may result with project implementation. The project design features would not be implemented as a means by which to mitigate a significant impact and therefore are not identified as mitigation measures herein. Rather, they would be incorporated into the project design and implemented during construction and operation to further minimize the project's potential effects on vegetation communities, sensitive species, jurisdictional resources, and wildlife movement within the BSA. A full list of proposed project design features is provided below and included in Section 5.0 of **Appendix 2.3**.

2.3.4. Project Design Features

On-site Habitat Conservation

The project will conserve 629.09 acres of on-site habitat conservation open space in perpetuity. **Table 2.3-2** identifies the type and acreage of each habitat to be conserved on-site:

Table 2.3-2 Conserved On-Site Habitat with Project Implementation

Vegetation Community	MSCP Tier	Total Conservation Open Space (acres)
Ragweed Mesic Meadow	I	1.14
Mulefat Scrub	I	1.82
Oak Riparian Woodland	I	17.83
Oak Woodland	I	2.43
Cactus Scrub	II	0.63
Diegan Coastal Sage Scrub (includes rock outcroppings)	II	338.80
Coastal Scrub-Chaparral Transitional (includes rock outcroppings)	II	40.78
Southern Mixed Chaparral (includes rock outcroppings)	III	218.12
Non-native Grassland	III	4.81
Disturbed Habitat	n/a	2.66
Agricultural Lands	n/a	0.00
Developed	n/a	0.07
Total:		629.09

Source: Merkel & Associates, Inc. / Althouse and Meade, Inc. 2017

The applicant will place an open space conservation easement (or comparable) over the proposed on-site habitat conservation open space areas. The primary purpose of the conservation easement(s) will be conservation of on-site sensitive vegetation communities and habitats for sensitive species. Conservation easement(s) will be held in perpetuity by a qualified easement holder, be subject to the management requirements outlined in the Biological Resource Management Plan (see mitigation measure **MM BIO-1**) and be subject to a legally binding agreement that will: (1) be recorded with the County Recorder(s); and (2) contain a succession clause for a subsequent qualified easement holder if the original holder is dissolved. Other specific conditions for the conservation easement may be outlined in permits issued by regulatory agencies for this project and/or in the executed multi-party annexation agreement.

Oak Riparian Woodland Habitat Avoidance

The project has been designed to avoid oak riparian woodland habitat to the maximum extent practicable, except for necessary road crossings.

Neighborhood Clustering

Clustering of neighborhoods where topography and drainages allow maximizing open space blocks and minimizing edge effects.

Homeowners Association (HOA) Maintained Habitat Open Space

The establishment of 128.6 acres of HOA maintained habitat open space (consisting primarily of Fuel Modification Zone (FMZ) II but also includes graded areas to be revegetated, and vegetated water quality basins) reduces potential significant indirect impacts and edge effects (e.g., elevated noise, artificial lighting, invasive weeds) from the development to the proposed on-site conservation open space. This HOA maintained habitat open space provides a non-irrigated, intermittently thinned native habitat area that is expected to support habitat function as a secondary goal to fire protection within FMZ II. An extensive revegetation program within the HOA maintained habitat open space would be implemented with the SHR project.

Design of Designated Wildlife Road Undercrossings

Preservation of primary and secondary local on-site wildlife movement corridors through the design of designated wildlife road undercrossings, as provided by the following:

- a. Providing ten wildlife movement undercrossings locations at key points primarily along the main access road (e.g., Safari Highlands Ranch Road) including the primary and secondary riparian wildlife movement corridors, along with traffic calming features including signage, speed bumps/rumble strip, and speed enforcement;¹
- b. Designing appropriately sized and suitable wildlife undercrossings. Wildlife undercrossing suitability relates to the ratio of the cross-sectional area to the length of an undercrossing. This is known as the Openness Ratio ($OR = \frac{\text{height} \times \text{width}}{\text{length}}$). Many researchers have recommended a minimum OR of 0.75 (Ford 1976, Cain et al. 2003, Clevenger and Waltho 2005) to support a wide range of small- and large-sized wildlife species. Using the OR formula, it can be seen that the longer an undercrossing is, the greater the cross-sectional area must be to support high wildlife use. Other design factors also play a role in the enhancement of the suitability of undercrossings, including providing a dry floor, native substrate on the bottom of the culvert/bridge, outer-culvert/bridge funneling features (e.g., fencing, wingwalls), and inner-culvert/bridge predator defense features (e.g., water resources, cover vegetation [but not too dense], scattered boulders/rocks along the inside outer edges). Wildlife undercrossings #1-#5 along the primary local wildlife movement route/main drainage, where larger animals move through the site, would meet or exceed the recommended OR of 0.75. The three undercrossings (#6a, #6b, “no #”) along the secondary local movement route (small ephemeral drainage) in the northern portion of the site consist of smaller culverts [e.g., 60 inch reinforced concrete pipe (RCP)] will facilitate wildlife movement of the smaller wildlife species that are expected to currently move through the site along this drainage. Although not required for wildlife movement, two additional wildlife undercrossings are proposed in the northwestern portion of the site where culverts (e.g., 48 inch RCP) are proposed for hydrology;

¹ Signs with or without accessories (flashing/blinking lights, warning messages) would notify approaching motorists of the presence of wildlife crossings. Speed bumps/rumble strips may be used to reduce vehicle speeds and the potential for vehicle/animal conflicts, especially where sight distance is limited by a curve in the road or concealing vegetation, and where surrounding habitat increases the risk of such collisions (Carr et al. 2003). Controlling traffic speed is often the least expensive way to reduce rates of vehicle-wildlife collisions combined with enforcement.

- c. Controlling other roadway design conditions that otherwise create greater risks of vehicle-wildlife collisions at proposed wildlife crossings such as providing suitable off-surface movement routes, minimizing crossings at tight corners, and avoiding roadside conditions that trap animals on road surfaces (e.g., impervious fencing or steep banks that do not provide escape areas or vegetation cover);
- d. Limiting vehicle speeds on Safari Highlands Ranch Road to 30 miles per hour (mph);
- e. Retaining riparian corridor widths as they emerge from narrow drainages to facilitate continued use by wildlife, such as deer and coyote.

Trail System

The proposed trail system will predominately utilize existing dirt roads/trails through the proposed habitat conservation open space and/or HOA maintained habitat open space.

Water Quality Basins/Stormwater Control

The project includes a comprehensive water retention system that will meet the latest RWQCB and City regulations to control drainage and stormwater runoff pollutants. This system includes hydro-modification management practices that use biofilters, retention and detention basins to prevent scouring, erosion, sedimentation, siltation, and other water quality impacts from urban runoff constituents, within downstream water bodies and associated biological systems (e.g., wetlands, riparian, aquatic organisms). Refer also to **Section 2.8, Hydrology and Water Quality**, for additional discussion of stormwater quality control measures and best management practices (BMPs).

2.3.5. Analysis of Project Effects and Determination of Significance

Threshold 1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

Sensitive Plants

Direct Impacts

The proposed project would not have direct impacts to any MSCP narrow endemic plant species or to any core populations of MSCP narrow endemic plant species. The proposed project could directly impact an estimated 1,779 out of 1,863 individuals of Brewer's redmaids during grading. An additional 18 individuals occur within Fuel Modification Zone I impact areas not graded, where chronic irrigation is likely to substantially affect this annual species and result in its loss from this area, as shown in **Table 2.3-3**; refer to Section 4.3 of **Appendix 2.3** for summary of impacts and applicable mitigation measures). Individual Engelmann oaks would also be impacted. A total of 212 out of 522 individual Engelmann oaks will be lost within the project grading footprint and FMZ 1. A total of 93 Engelmann oaks that occur in FMZ II would be considered impacted although the project plans to avoid these oak trees, as shown in **Table 2.3-3**; refer to Section 4.3 of **Appendix 2.3** for a summary of impacts and applicable mitigation measures). The remaining six sensitive plant species present on-site (e.g., delicate clarkia, golden-rayed pentachaeta, San Diego sagewort, Cooper's rein orchid, rush-like

bristleweed, southwest spiny rush) are all in proposed on-site open space areas or located outside of off-site impact areas and not subject to direct impacts. Therefore, the project would not impact these other sensitive plant species on-site. Refer to **Table 2.3-3** and **Figures 2.3-3; 2.3-4A to 2.3-4C, and 2.3-5** for the occurrence of sensitive plant species on the project site in relation to project impacts and proposed habitat conservation open space.

Table 2.3-3 Summary of Sensitive Plant Species Quantities and Location within Project Site

Plant Species	Project Footprint and FMZ I Impact	FMZ II Impact	Proposed Conservation Open Space	Total
Brewer's Redmaids	1,779	0	84	1,863
Rush-like Bristleweed	0	0	2	2
Spiny Rush	0	0	50	50
Cooper's Rein Orchid	0	0	2	2
Delicate Clarkia	0	0	183	183
Golden Rayed Pentachaeta	0	0	731	731
San Diego Sagewort	0	0	4	4
Engelmann Oak	212	93	217	522

Source: Merkel & Associates / Althouse and Meade 2017

Although the project design features such as the proposed on-site habitat conservation open space that supports sensitive plant species including Brewer's redmaids and Engelmann oak and the avoidance of oak riparian woodland habitat would lessen any potential adverse effects for these species, the residual project impacts to Brewer's redmaids and Engelmann oak would be **potentially significant** under CEQA and would require (habitat based) mitigation measures to reduce impacts to a level below significance. Mitigation measures **MM BIO-1, MM BIO-7, MM BIO-11, MM BIO-12, and MM BIO-13** would reduce these potential significant impacts to **less than significant** level under CEQA. These applicable mitigation measures are provided below. Refer to Section 4 of **Appendix 2.3** for discussion of potentially significant impacts and applicable mitigation measures; and Section 5 for complete list of project design features and mitigation measures.

Indirect Impacts

Potential indirect effects from the proposed residential development to sensitive plant species located within the proposed conservation open space may include typical edge effects such as invasive species and human intrusion into conserved habitat. The proposed project design feature to establish 128.6 acres of HOA maintained habitat open space would lessen adverse indirect impacts and edge effects from the development to the proposed on-site conservation open space that supports sensitive plant species to **less than significant**. Refer to **Appendix 2.3**, Sections 4 and 5, for full discussion of potentially significant impacts and applicable mitigation measures.

Mitigation Measures

Biological Resource Management Plan

MM BIO-1 To ensure the success of the proposed on-site conservation open space/habitat mitigation areas required for compensation of permanent and

temporary impacts to vegetative communities and habitat for several special status wildlife species, the applicant shall retain a qualified biologist to prepare and implement a Biological Resource Management Plan (BRMP) for the 629.09 acres of habitat conservation open space. The BRMP shall be submitted by the applicant to the City, County, USFWS, and CDFW for review to ultimately ensure consistency with the project annexation agreement to be prepared and negotiated between the same five parties.

The BRMP shall follow the USFWS and County guidelines for preparation of the BRMP and include at a minimum the following:

- Purpose and Objectives
- Site legal description, land use, and history including past management if applicable,
- Summary of on-site and surrounding biological resources,
- Implementation Components including:
 - Resource Manager
 - Land Owner
 - Easement Holder
 - Restoration Entity
 - Financial Mechanism
 - Management Cost Estimate
 - Reporting Requirements
 - Limitations and Constraints
- Biological Resources Management Plan Tasks including
 - Biological management goals
 - Adaptive management
 - Operations
 - Maintenance
 - Administration
 - Public use,
 - Fire management

Timing/Implementation: Prior to issuance of a grading permit

Enforcement/Monitoring: City of Escondido Engineering and Planning Divisions

Oak Woodland/Tree Impact Minimization

MM BIO-7 Prior to the commencement of construction, where conserved oak trees occur adjacent to the project impact area, a qualified biologist shall establish a buffer of 50 feet from the driplines of oak trees. The County of San Diego requires a

50-foot wide oak root zone buffer. The applicant shall submit documentation that either no oak woodlands or no individual oaks were recorded within 50 feet of proposed impact areas, or that appropriate minimization measures have been implemented to minimize impacts to conserved oak trees and oak woodlands prior to issuance of grading permits. Unavoidable construction activities within the buffer shall be monitored by an International Society of Arboriculture (ISA)-certified arborist. All buffers shall be marked using highly visible flagging or fencing. Oak trees within fuel modification zones shall be retained wherever practicable. The applicant shall submit documentation to the County that an ISA-certified arborist has been contracted to develop conserved oak tree TPZs prior to issuance of a grading permit.

During project construction, impacts to native trees proposed to be conserved but in proximity to the project footprint and at risk of being damaged by project activities shall be avoided and/or minimized to the maximum extent practicable through the establishment, in consultation with an ISA-certified arborist, of Tree Protection Zones (TPZs) that include at least a 50-foot buffer around oak driplines within project disturbance areas. The health and stability of trees is best protected by minimizing impacts to root systems. Such impacts are typically caused by vehicles, heavy equipment, foot traffic, and stored materials. For all retained trees, the minimum TPZ shall be defined as the area within the tree's dripline, unless incursions within the dripline are specifically reviewed and approved by the ISA-certified arborist. The applicant shall submit documentation of ISA-certified arborists monitoring of any project activity within TPZs. Around each tree or group of trees to be preserved in or next to an impact area, highly visible flagging or fencing shall be erected along the approximate dripline(s) of such protected trees to define the construction boundary and create a TPZ for trunks and roots. Within TPZs, work shall be limited as follows:

1. No storage of equipment or construction materials, parking of vehicles, or operation of equipment shall be permitted within the TPZ unless specifically reviewed and authorized by the ISA-certified arborist. Additional protective measures, such as use of fabric overlain by six inches of wood chips, shall be used to protect the affected rooting areas within the TPZ.
2. No soil shall be removed from within the dripline of any tree, and no fill of additional soil shall exceed two inches within the driplines of trees, unless it is part of approved construction and is reviewed by an ISA-certified arborist. Because trees are sensitive to the addition of fill, excavated material shall either be removed from the site or retained at least one foot away from oak trunks and from as much rooting area as is feasible.
3. Bark injury caused by equipment or materials shall be prevented by the protective fencing described above.

4. Roots exposed by excavation shall be pruned and recovered as quickly as possible to promote callusing, closure, and healthy regrowth. Where excavation occurs within TPZs, the following root-severing procedures shall be followed during excavation and trenching unless otherwise approved by an ISA-certified arborist: gently expose and cleanly sever roots one foot farther from the tree than the final limit of grading, then hand-dig the final foot of width. Roots are then cleanly pruned to the side wall of the excavation with a saw, narrow trencher with sharp blades, or clippers. Hydraulic or pneumatic excavation technologies that expose and minimize damage to roots may be used. Exposed roots shall be draped immediately with at least two layers of untreated burlap or carpets, secured to cover the excavated surface to a depth of 3 feet. Burlap or carpeting (or temporary fill) shall be soaked nightly and kept in place until the excavated surface is backfilled and watered.
5. All tree work shall be guided by an ISA-certified arborist, and work shall be completed by qualified tree service personnel.
6. Oaks shall not be trimmed during periods of rapid growth in the spring and early summer, to prevent growth of deformed “witches brooms.”
7. Where trees are removed within 15 feet of retained trees, roots of the removed tree shall be severed by grinding the stump to grade or slightly below grade, rather than excavating the stump. If grinding is infeasible, sharp vertical cuts shall be made at the limits of approved excavation before pushing over or excavating the root wad and trunk.
8. Special construction methods that minimize root loss may be necessary to permit healthy retention of certain trees. These measures may include, but are not restricted to, minimizing native soil excavation or using forms to retain subgrade and surfacing slightly above the existing soil surface. Posts or caissons shall be attached to retention structures, including forms, in place of continuous structures.
9. Semipermeable surfaces shall be used wherever feasible for proposed road, parking, or walkway surfaces that cross the roots of trees.
10. Wood chips or other mulch shall be applied to TPZs within 15 feet of construction activities; however, chips and mulch shall not be left mounded against tree trunks.

Timing/Implementation: *Prior to commencement of construction activities; during project construction*

Enforcement/Monitoring: *City of Escondido Engineering and Planning Divisions*

Biological Construction Monitoring

MM BIO-11 Prior to vegetation/ground disturbance or site mobilization activities, a qualified biologist(s) shall be retained by the applicant to monitor the project construction activities. The applicant shall submit documentation to the City demonstrating that the applicant has contracted qualified biologists to conduct

biological monitoring prior to issuance of a grading permit. The applicant shall also report results of biological monitoring activity to the City on a monthly basis through the preparation and submission of summary monitoring reports. Each qualified biologist shall have demonstrated expertise with the special status plants and wildlife of the region. Expertise must include the ability to recognize special status and common species of the region, as well as sign, including scat, pellets, tracks, hair, fur, feathers, dens, and burrows. One or more of the qualified biologists shall also, as necessary, have the ability to monitor, handle, and relocate (where practical) special status species observed within the construction footprint. This activity does not apply to California gnatcatcher, the only federally listed species on-site, since the project construction would not occur during the gnatcatcher breeding season within the gnatcatcher occupied habitat. Further, additional measures may be required for gnatcatchers through the annexation agreement transfer of take from the County to the City.

The qualified biologist(s) shall monitor the installation of the construction temporary fencing and/or flagging, silt fencing, and other best management practices along the construction limits prior to construction activities. The qualified biologist shall be present during all initial vegetation clearing and grubbing ground-disturbing activities.

If a special status wildlife species is encountered during project construction, the following protocol shall be implemented to minimize losses of individual special status animals:

1. All work that could result in death, or injury of an individual animal shall be monitored by a qualified biologist; and
2. When practical, the qualified biologist shall remove the individual animal to an appropriate relocation site outside the project impact areas, or the individual animal shall be allowed to leave unimpeded. If construction activities have been diverted or halted for wildlife rescue as directed by the qualified biologist(s), construction shall be allowed to resume as soon as the individual animal either leaves or is removed from the disturbance area.

Since project construction would be implemented in seven phases over several years, prior to the initiation of construction activities for each subsequent new development phase, a qualified biologist shall assess the construction area to determine the presence of suitable habitat for sensitive species that were not present or not expected to be present during the previous biological surveys to ensure that no impacts to these species would occur as analyzed in the project biological technical report.

Timing/Implementation: *Prior to issuance of a grading permit; during project construction*

Enforcement/Monitoring: *City of Escondido Engineering and Planning Divisions*

Biological Construction Best Management Practices

MM BIO-12 The following Best Management Practices shall be implemented to avoid and minimize impacts to special status species.

1. Prior to ground disturbance, all permanent and temporary disturbance areas shall be clearly delineated by stakes, flags, or another clearly identifiable system.
2. To minimize disturbance of areas outside the project site, all construction and operation vehicle traffic shall be restricted to established roads, construction areas, and other designated areas. These areas shall be included in pre-construction surveys and, to the extent possible, shall be established in locations disturbed by previous activities to prevent further impacts.
3. Construction and operation vehicles shall observe a 25 miles-per-hour (mph) maximum speed limit during daylight hours within project areas, except on county roads and state and federal highways. During limited night-time activities, all construction vehicles shall observe a 20 mph speed limit. Speed limit signs shall be installed at the project site entrance and every half mile along the project site access roads, and at the end points of the roads upon initiation of site disturbance and/or construction.
4. Materials that could provide shelter/nesting habitat for birds during the nesting season may be covered with netting or treated with other exclusion methods, where feasible and appropriate, to prevent birds from constructing nests. In addition, materials such as wooden pallets, wooden power poles, and metal tubing, providing nesting and shelter habitat for birds during the nesting season and artificial refugia for other special-status species shall be thoroughly inspected before use.
5. If encountered, wildlife within the project site shall be allowed to escape unimpeded, removed by a qualified biologist and placed in a designated safe area away from construction activities, or left in place when required by regulations, policies, permits, and/or conditions of approval.
6. To prevent entrapment of special-status wildlife, all excavations (e.g., steep-walled holes, or trenches) more than six inches deep shall be fitted with at least one escape ramp constructed of earth dirt fill, wooden planks, or another material that wildlife could ascend. All excavations more than six inches deep shall be inspected daily for entrapped wildlife before construction activities begin. Before excavations are filled, they shall be thoroughly inspected for entrapped wildlife. Any wildlife discovered shall be allowed to escape unimpeded before construction activities resume or shall be removed from excavated areas by a qualified biologist and released at a safe nearby location.
7. Avoidance and minimization of impacts on sensitive biological resources within active construction areas shall be aided through identification of environmentally sensitive areas with flagging or fencing.

8. Dust suppression shall occur during construction activities when necessary to meet air quality standards and protect biological resources.
9. No vehicles or equipment shall be refueled or undergo maintenance within 100 feet of a jurisdictional waters feature. Spill kits shall be maintained on the site in sufficient quantity to accommodate at least three complete vehicle tank failures of 50 gallons each. Any vehicles driven or operated within or adjacent to drainages or wetlands shall be checked and maintained daily to prevent leaks of contaminated fluids.
10. All general trash, food-related trash items (wrappers, cans, bottles, food scraps, cigarettes, etc.), and other human-generated debris scheduled to be removed shall be stored in animal-proof containers and removed from the site on a regular basis (weekly during construction, and at least monthly during operations). No deliberate feeding of wildlife shall be allowed.
11. If necessary, construction-related night lighting sources shall be minimized, and designed (e.g., using shielding and/or downcast lights) to limit the lighted area to the minimum necessary contained within the construction limits. No light spillover shall be allowed outside of the construction limits or light pollution into the sky to avoid any adverse effects to wildlife species.
12. Use of chemicals, fuels, lubricants, or biocides shall be in compliance with all local, state, and federal regulations. All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other state and federal legislation. Use of first- and second-generation rodenticides shall not be permitted except for the limited use of zinc phosphide, or a rodenticide approved by the City, and only after other means of pest control (e.g. rodent traps) have proven to be ineffective.
13. Cap Vertical Pipes and Piles. To prevent cavity-dwelling birds from entering open vertical pipes and piles, all open vertical pipes and piles shall be capped or otherwise modified to prevent use by birds. Caps or other modifications shall be put in place before or immediately after pipe or pile installation. All caps or other exclusionary modifications shall be maintained for the duration of construction and operation. A qualified biologist shall periodically monitor the site to ensure that all pipes or piles are appropriately capped.

The applicant shall include details regarding construction BMPs in biological monitoring status reports that are to be submitted to the City as outlined in mitigation measure **MM BIO-11**.

Timing/Implementation: *Prior to the initiation of construction activities or during construction activities*

Enforcement/Monitoring: *City of Escondido Engineering and Planning Divisions*

Worker Environmental Awareness Program

MM BIO-13 The applicant shall retain qualified biologists to prepare a Worker Environmental Awareness Program (WEAP) that shall be presented to all construction personnel and employees before any ground-disturbing activities commence at the project site. This presentation shall explain to construction personnel how best to avoid impacts to special status species during construction. The program shall consist of a brief presentation explaining listed and other special status species concerns to all personnel involved in the project. The program shall include a description of all special status species potentially on the project site and their habitat needs; an explanation of the status of the species and their protection under the state and federal regulations; specific mitigation measures applicable to listed and other special status species; permit conditions, and the penalties for violation of applicable laws.

The program shall also explain to construction personnel how to minimize impacts to jurisdictional waters, including wetlands. The program shall include a description of jurisdictional waters on the site, specifically permitted impacts to jurisdictional waters, measures to protect waters to be avoided, and maps showing the location of jurisdictional waters and permitted impact areas. If acceptable to agencies, the program shall be recorded electronically, and all future employees shall be required to review the recording before the initiation of work on the project site. The WEAP shall be implemented by the applicant before the start of vegetation clearing, grubbing, and/or ground disturbance and shall be continued through the construction phase for all new construction personnel.

Timing/Implementation: Prior to the issuance of a grading permit; prior to project construction activities

Enforcement/Monitoring: City of Escondido Engineering and Planning Divisions

Sensitive Wildlife

Direct Impacts

No narrow endemic wildlife species other than coastal cactus wren are known or expected to occur on-site. No direct impacts to any narrow endemic wildlife species (e.g., coastal cactus wren) are expected from project implementation.

Direct impacts to the native vegetation would reduce habitat for several sensitive wildlife species known to occur on-site; refer to **Table 2.3-4** for those species that have at least a moderate potential to occur on-site; refer to Appendix B of **Appendix 2.3**. Further, the project may potentially directly impact these sensitive species during project construction activities.

Table 2.3-4 Summary of Sensitive Animal Species Locations within Project Site

Animal Species Observation Points*	Project Footprint and FMZ I Impact	FMZ II Impact	Proposed Conservation Open Space	Total
California Gnatcatcher	2	1	3	6
Coastal Cactus Wren	0	0	1	1
Cooper's Hawk	1	0	1	2
Turkey Vulture	0	0	5	5
Rufous-Crowned Sparrow	6	0	8	14
Loggerhead Shrike	1	0	0	1
Western Bluebird	6	0	0	6
Belding's Orange-Throated Whiptail	11	0	16	27
San Diego Horned Lizard	6	0	2	8
Coastal Rosy Boa	1	0	0	1
Red Diamond Rattlesnake	1	0	0	1
Western Spadefoot Toad**	-	-	-	14
Monarch Butterfly	-	-	-	3

Source: Merkel & Associates / Althouse and Meade 2017

* The point observations for individual animals assist in identifying the habitat affinities and general distribution of organisms on the site based on surveys conducted and do not reflect absolute counts of individuals.

** The locations of the observed spadefoot toad metamorphs during the 2017 field survey were due to these juveniles dispersing from an off-site breeding pond. These locations are not necessarily where these observed spadefoot would remain for the rest of their terrestrial lives.

The project impact analysis for each applicable sensitive wildlife species or group of sensitive wildlife species is analyzed separately below and discussed further in Sections 4 and 5 of **Appendix 2.3**.

California Gnatcatcher

California gnatcatcher is the only federally-listed species that occurs on the project site. Based on 2014 gnatcatcher protocol surveys and field surveys conducted by Merkel & Associates in 2017, up to five territories of gnatcatcher occur within suitable Diegan coastal sage scrub habitat predominately occurring within the southern portion of the project site; refer to **Figures 2.3-1A** and **2.3-1C**. Additional suitable gnatcatcher habitat presumed to be occupied is located in the western half of the project site and along the off-site southern emergency access (e.g., Zoo Road, Rockwood Road) alignment below 1,000 feet in elevation within Diegan coastal sage scrub. Protocol gnatcatcher surveys in 2015 for the northern emergency access road were negative; however, in late September 2017 an individual California gnatcatcher was observed by Merkel & Associates adjacent to this off-site northern access road located at approximately 520 feet in elevation within open riparian habitat adjacent to Diegan coastal sage scrub (Merkel & Associates, Inc. and Althouse and Meade, Inc. 2017).

It is unclear if the gnatcatcher individual observed in 2017 was moving through the project area, has an established territory within suitable sage scrub habitat in the vicinity of the proposed emergency access route, or moved into the more mesic riparian area during the late summer as is typical when sage scrub habitat begins to dry out. For purposes of project impact assessment, any suitable CSS habitat that occurs along the northern emergency access route located below 1,000 feet in elevation has been assumed to be occupied by gnatcatcher.

The proposed project would directly impact two gnatcatcher territories from vegetation clearing, grading, and the construction of a water quality basin and recreational area, as well as the fuel management activities in the south-central portion of the site; refer to **Figures 2.3-4A, 2.3-4B, and 2.3-4C**. Portions of two additional gnatcatcher territories on-site in the southwestern portion of the site may be temporarily impacted by construction grading activities for the primary entry road alignment. These two pairs of birds are expected to remain resident after road construction primarily since temporary habitat impacts within these two territories would be minimized through revegetation with appropriate coastal sage scrub species as well as the availability of suitable and occupied gnatcatcher habitat within the surrounding proposed conservation open space.

One gnatcatcher territory location at the southern boundary of the project site is not expected to be directly impacted by the project due to its distance (e.g., over 500 feet) from the proposed project impact areas. Along the proposed southern emergency access road widening alignment (e.g., existing Zoo Road) there is a relatively small amount of gnatcatcher utilized coastal sage scrub habitat that would be impacted from vegetation clearing and/or grading (e.g. 20 feet on both sides of existing road for an approximate 3,600-foot alignment).

Due to the nature of this proposed road work being an improvement to an existing road, this work would not be expected to result in substantial changes in gnatcatcher use of the adjacent lands and would not be expected to result in loss of gnatcatcher territories or reduction in productivity of existing territories in these areas. Based on the recent gnatcatcher observation along the off-site northern emergency access road, proposed construction vegetation clearing and grading activities for the improvement of this existing dirt road, as well as new features along this road such as the fire department water tanks and water quality basins, may impact occupied gnatcatcher habitat. Gnatcatcher are expected to remain resident after project implementation primarily due to the nature of the work being a secured emergency access road that would be limited to emergency access by authorized personnel (e.g., fire department during a wildfire), as well as the availability of remaining large blocks of contiguous suitable and/or assumed occupied gnatcatcher habitat within the surrounding lands.

A total of 189.06 acres of coastal sage scrub out of 265.10 acres of coastal sage scrub (71%) below the 1,000-foot elevation contour will be conserved in the proposed conservation open space on-site. This area represents the remaining on-site gnatcatcher occupied habitat after project implementation as well as the remaining on-site portion of the Escondido/San Pasqual Valley “core” reserve gnatcatcher population identified in the Population Viability Analysis of the California gnatcatcher that likely extends into the southernmost portion of the project site. It is expected that the on-site gnatcatchers will be able to continue to utilize the conserved suitable coastal sage scrub habitat after project implementation partially due to the proposed open space configuration that retains contiguous connectivity to off-site suitable/occupied

gnatcatcher habitat and large areas of suitable/occupied gnatcatcher habitat on-site. Similarly, off-site gnatcatchers would be expected to continue to utilize the suitable habitat within the proposed conserved open space due to its connectivity to adjacent occupied and conserved coastal sage scrub habitat located south and west of the project.

Although the proposed project includes on-site habitat conservation open space that supports gnatcatcher occupied habitat as well as the establishment and revegetation within HOA maintained habitat open space that would lessen potential adverse effects to gnatcatcher, the residual project impacts to gnatcatcher would be **potentially significant** under CEQA and would require mitigation measures to reduce these impacts to a level below significance. Mitigation measures **MM BIO-1, MM BIO-2, and MM BIO-8 to MM BIO-13** would reduce these potential significant impacts to **less than significant** level under CEQA. Refer to **Appendix 2.3**, Section 4 for a discussion of potentially significant impacts and applicable mitigation measures; and Section 5 for complete list of project design features and mitigation measures.

Mitigation Measures

Implement mitigation measure **MM BIO-1**.

Off-site Habitat Conservation

MM BIO-2 To meet the mitigation ratio requirement for Diegan coastal sage scrub, 14.18 acres of off-site Diegan coastal sage scrub habitat shall be conserved in perpetuity at an appropriate mitigation site or approved mitigation bank, in addition to the 629.09 acres of on-site habitat conservation.

Further, an additional 17.23 acres of coastal sage scrub off-site conservation would be required to meet the MSCP coastal sage scrub habitat conservation goal of 64% for the Metro-Lakeside-Jamul Segment, as assessed in the project MSCP Consistency Analysis Report. A total of 31.41 acres of coastal sage scrub habitat shall be conserved off-site in perpetuity.

The applicant shall verify the total acreages required to meet all compensatory mitigation obligations and submit these totals to the City prior to the issuance of grading permits. The applicant shall then obtain City approval of the holder of conservation easement(s) and the restrictions contained in the easement(s) created for the permanent protection of these lands. Documentation of recorded easement(s) shall be submitted to and approved by the City.

Timing/Implementation: Prior to the issuance of grading permits.

Enforcement/Monitoring: City of Escondido Engineering and Planning Divisions

California Gnatcatcher Breeding Season Avoidance and Minimization Measure

MM BIO-8 All vegetation clearing activities shall be conducted outside of the federally-listed California gnatcatcher occupied habitat during the breeding season (February 15th to August 15th) to avoid impacts to nesting gnatcatchers. Additionally, for any work proposed adjacent to gnatcatcher occupied habitat

during the gnatcatcher breeding season, occupied habitat shall be delineated by orange biological fencing to ensure that no work shall occur within gnatcatcher occupied habitats.

Further, within areas adjacent to gnatcatcher occupied habitat, on-site noise reduction/attenuation techniques shall be incorporated during the gnatcatcher breeding season. In addition, noise monitoring may be required to ensure that the potential elevated construction noise levels are appropriately attenuated at the edge of occupied habitat to a level that is not expected to adversely affect nesting bird behavior (e.g., not to exceed an hourly average of 60 dB(A) or ambient whichever is greater, at the edge of any occupied territory).

Timing/Implementation: Prior to commencement of construction activities; during project construction

Enforcement/Monitoring: City of Escondido Engineering and Planning Divisions

MBTA/CFG Code Bird Breeding Season Avoidance/Preconstruction Surveys for Nesting Birds

MM BIO-9 To avoid any direct impacts to migratory birds and/or raptors protected under the federal Migratory Bird Treaty Act (MBTA) and California Fish and Game (CFG) Code Sections 3503 and 3513, respectively, the removal of habitat that supports active nests in the proposed area of disturbance shall occur outside of the general breeding season for these categories of birds (County of San Diego recognized MBTA breeding season is February 15th to August 31st).

If construction-related vegetation clearing and grubbing activities cannot be conducted outside the general avian breeding season (February 15th to August 31st), then pre-construction active nest surveys shall be conducted within potentially suitable nesting habitat.

All gnatcatcher occupied habitat shall be avoided during the gnatcatcher breeding season. This requirement is therefore not applicable to gnatcatcher occupied habitat.

Not more than 5 days prior to initiation of construction activities (including mobilization, staging, and environmentally sensitive area fence installation) during the bird breeding season, a qualified biologist shall conduct pre-construction surveys for nesting birds protected under the MBTA and CFG Code Sections 3503 and 3513. The survey area for nesting bird species shall include the disturbance footprint plus a 100-foot buffer. The surveys shall be repeated prior to the restart of construction activities that have been dormant on-site for up to 3 weeks, and prior to the start of each successive breeding season for each subsequent year of construction to ensure that construction activities avoid impacts to nesting birds.

If active nests (nests with eggs or chicks) are located, the qualified biologist shall establish an appropriate avoidance buffer ranging from 30 to 500 feet based on the species and the current and anticipated disturbance levels

occurring in vicinity of the nest. The objective of the buffer shall be to reduce disturbance of active nesting birds. All buffers shall be marked using high-visibility flagging or fencing, and, unless approved by the qualified biologist, no construction activities shall be allowed within the buffers until the young have fledged from the nest.

At the completion of the pre-construction MBTA/CDFG Code nest surveys, the applicant shall submit documentation to the City that either 1) no nesting birds were recorded within the area to be cleared, grubbed, and/or graded within the project site surveyed by the qualified biologist, or 2) appropriate avoidance measures were implemented in consultation with the qualified biologist to ensure avoidance of impacts to an active nest or nesting bird protected under MBTA and CFG Code prior to the start of construction activity.

Timing/Implementation: Prior to initiation of construction activities

Enforcement/Monitoring: City of Escondido Engineering and Planning Divisions

Night Lighting Spill Avoidance

Implement mitigation measures **MM BIO-11** to **MM BIO-13**.

MM BIO-10 To ensure project artificial night lighting for the project development would not spill into the on-site habitat conservation open space, a lighting plan or comparable document shall be prepared and implemented to shield and/or direct night lighting sources away from the on-site conservation open space.

Timing/Implementation: Prior to issuance of a grading permit

Enforcement/Monitoring: City of Escondido Engineering and Planning Divisions

Other Sensitive Wildlife Species Known to Occur On-site

CDFW Species of Special Concern (SCC) and/or County Group 1 Species

The following species are known to occur on-site, are designated CDFW SCC and/or a County Group 1 species, and would be directly impacted by the project: *Cooper's hawk, turkey vulture, rufous-crowned sparrow, loggerhead shrike, western spadefoot toad, San Diego horned lizard, and red diamond rattlesnake*. The proposed project design features would lessen potential adverse effects to these sensitive wildlife species, but would still result in residual **potentially significant** impacts under CEQA, primarily due to the sensitivity status of these species. Mitigation measures **MM BIO-1, MM BIO-2, MM BIO-9, MM BIO-10, MM BIO-11, MM BIO-12, and MM BIO-13** would reduce these direct impacts to **less than significant** levels under CEQA. These applicable mitigation measures are provided below. Refer to **Appendix 2.3**, Section 4 for a discussion of potentially significant impacts and applicable mitigation measures; and Section 5 for complete list of project design features and mitigation measures.

Mitigation Measures

Implement mitigation measures **MM BIO-1**, **MM BIO-2**, and **MM BIO-9** through **MM BIO-13**.

County Group 2 Species

The following County Group 2 species are known to occur on-site and would be directly impacted by the project: *Belding's orange-throated whiptail*, *coastal rosy boa*, *western bluebird*, and *monarch butterfly*. The proposed project design features would lessen potential adverse effects to these sensitive wildlife species. In addition, due to their lower sensitivity, relatively minor reduction of suitable habitat (from a MSCP Subarea perspective) for these species from project implementation, and proposed conservation of large tracts of suitable habitat for these species, the project impacts would be **less than significant** under CEQA and no mitigation measures would be required.

Other Sensitive Wildlife Species-Not Present Based on Protocol Surveys

Arroyo Toad

No impacts to arroyo toad would occur from implementation of the proposed project since the 2017 USFWS arroyo toad focused surveys on-site were negative and no arroyo toads occur or are expected to occur within the project site.

Least Bell's Vireo

No impacts to least Bell's vireo would occur from implementation of the proposed project since the 2014 USFWS least Bell's vireo protocol surveys on-site were negative and no vireos occur or are expected to occur within the project site due to a lack of suitable habitat.

Other Sensitive Wildlife Species-Only Limited Foraging Habitat On-site

Golden Eagle

Golden eagle is not expected to nest on-site due to a lack of nesting habitat and no known nesting records on the project site. Further, based on the field surveys and the best available information, golden eagle does not make more than infrequent use (e.g., flyover, foraging) of the site. Due to the limited extent of potential golden eagle flyover and/or foraging use of the project site, no potentially significant impacts to foraging habitat for golden eagle is expected from implementation of the project.

Indirect Impacts

Although the proposed project design features including the establishment of HOA maintained habitat open space that would lessen potential adverse effects to sensitive species including potential indirect impacts such as edge effects from the proposed development, the residual project indirect impacts to sensitive wildlife species would be **potentially significant** under CEQA. Mitigation measures **MM BIO-1** and **MM BIO-10** would reduce these indirect impacts to **less than significant** levels under CEQA. These applicable mitigation measures are provided below. Refer to **Appendix 2.3**, Section 4 for a discussion of potentially significant impacts and applicable mitigation measures; and Section 5 for complete list of project design features and mitigation measures.

Mitigation Measures

Implement mitigation measures **MM BIO-1** and **MM BIO-10**.

Level of Significance After Mitigation

Mitigation measure **MM BIO-1**, which requires preparation and implementation of a Biological Resource Management Plan for the 629.09 acres of habitat conservation open space, would ensure the success of the proposed on-site conservation open space/habitat mitigation areas required for compensation of permanent and temporary impacts to vegetative communities and habitat for several special status wildlife species.

To meet the mitigation ratio requirement for Diegan coastal sage scrub, mitigation measure **MM BIO-2** would require conservation of 14.18 acres of off-site Diegan coastal sage scrub habitat in perpetuity at an appropriate mitigation site or approved mitigation bank, in addition to the 629.09 acres of on-site habitat conservation. Further, off-site conservation of an additional 17.23 acres of coastal sage scrub would be required to meet the MSCP coastal sage scrub habitat conservation goal of 64% for the Metro-Lakeside-Jamul Segment, as identified in the project MSCP Consistency Analysis Report. A total of 31.41 acres of coastal sage scrub habitat shall be conserved off-site in perpetuity.

To avoid and/or minimize impacts to oak trees proposed to be conserved located adjacent to the project impact area, mitigation measure **MM BIO-7** will require delineation of a 50-foot oak root zone buffer. Unavoidable construction activities within the buffer shall be monitored by an ISA-certified arborist. Oak trees within fuel modification zones shall be retained wherever practicable.

To avoid impacts to gnatcatchers, mitigation measure **MM BIO-8** will require that all vegetation clearing activities be conducted outside of the federally-listed California gnatcatcher occupied habitat during the breeding season (February 15th to August 15th). Additionally, for any work proposed adjacent to gnatcatcher occupied habitat during the gnatcatcher breeding season, occupied habitat shall be delineated by orange biological fencing to ensure that no work shall occur within gnatcatcher occupied habitats. Further, within areas adjacent to gnatcatcher occupied habitat, on-site noise reduction/attenuation techniques and/or noise monitoring shall be incorporated during the gnatcatcher breeding season to ensure that the potential elevated construction noise levels are appropriately attenuated at the edge of occupied habitat to a level that is not expected to adversely affect nesting bird behavior (e.g., not to exceed an hourly average of 60 dB(A) or ambient whichever is greater, at the edge of any occupied territory).

To avoid any direct impacts to migratory birds and/or raptors protected under the federal MBTA and CFG Code Sections 3503 and 3513, respectively, mitigation measure **MM BIO-9** requires that any removal of habitat supporting active nests in the proposed area of disturbance shall occur outside of the general breeding season for these categories of birds (County of San Diego recognized MBTA breeding season is February 15th to August 31st). If construction-related vegetation clearing and grubbing activities cannot be conducted outside the general avian breeding season, then pre-construction active nest surveys are required within the applicable potentially suitable nesting habitat. If an active bird nest were found, then all

construction activities undertaken for the project shall comply with the regulatory requirements of the MTBA and CFG Codes Sections 3503 and 3513 such as implementing appropriate avoidance measures.

To ensure project artificial night lighting for the project development would not spill into the on-site habitat conservation open space, mitigation measure **MM BIO-10** requires preparation and implementation of a lighting plan or comparable document to ensure that nighttime lighting sources are shielded and/or directed away from the on-site resource or HOA maintained open space.

To avoid inadvertent impacts, mitigation measure **MM BIO-11** will require that a qualified biologist(s) be retained by the applicant prior to commencement of vegetation/ground disturbance or site mobilization activities to monitor the project construction activities. The qualified biologist(s) shall monitor the installation of the construction temporary fencing and/or flagging, silt fencing, and other BMPs along the construction limits prior to construction activities; refer also to **Section 2.8, Hydrology and Water Quality**, for additional discussion. The qualified biologist shall be present during all initial vegetation clearing and grubbing ground-disturbing activities. Further, if a sensitive wildlife species is encountered within the project impact area during project construction, a pre-determined protocol shall be implemented to minimize losses of individual sensitive animals.

To avoid and minimize impacts to sensitive biological resources during construction, mitigation measure **MM BIO-12** will require implementation of Biological Construction BMPs.

To avoid impacts to sensitive species during construction activities, mitigation measure **MM BIO-13** will require the applicant to retain qualified biologists to prepare a Worker Environmental Awareness Program (WEAP) that shall be presented to all construction personnel and employees prior to commencement of any ground-disturbing activities at the project site. This presentation shall explain to construction personnel how best to avoid impacts to sensitive biological and jurisdictional resources during construction. The WEAP shall be implemented by the applicant before the start of vegetation clearing, grubbing, and/or ground disturbance and shall be continued through the construction phase for all new construction personnel.

Therefore, impacts would be **less than significant** with mitigation incorporated.

Threshold 2: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

The proposed project residential development footprint and the FMZ I would permanently and directly impact habitats and vegetation communities within the project site and within portions of the linear off-site improvement areas for the primary access road and two emergency access roads (**Tables 2.3-5, 2.3-6, and 2.3-7; Figures 2.3-4A, 2.3-4B, and 2.3-4C**). Temporary direct impact areas consisting primarily of the FMZ II would be selectively thinned where applicable and revegetated with native plant palettes. No irrigation is proposed

within FMZ II. Proposed trails through conservation open space and/or HOA maintained habitat open space will predominately utilize existing dirt roads/trails on-site. Further, one of the proposed project features includes 629.09 acres of habitat conservation open space that would be protected in perpetuity (Table 2.3-8; Figure 2.3-5).

Table 2.3-5 Summary of Direct Impacts to Habitats and Vegetation Communities

Habitat/Vegetation Community	MSCP Habitat Tier	Total Project (On-site and Off-site) Existing Condition (acres)	On-site Impacts ¹ (acres)	Off-site Impacts ¹ (acres)
Ragweed Mesic Meadow	I	1.29	0.15	0.00
Mulefat Scrub	I	1.89	0.05	0.02
Oak Riparian Woodland	I	20.45	2.12	0.50
Oak Woodland	I	5.01	2.58	0.00
Cactus Scrub	II	0.63	0.00	0.00
Diegan Coastal Sage Scrub (includes rock outcroppings)	II	574.83	223.13	12.88
Coastal Sage-Chaparral Transition (includes rock outcroppings)	II	67.70	26.91	0.00
Southern Mixed Chaparral (includes rock outcroppings)	III	424.32	201.99	4.22
Non-native Grassland	III	7.88	3.06	0.00
Disturbed Habitat	IV	18.84	8.57	7.58
Agriculture Intensive	IV	2.14	0.00	2.14
Developed	None	6.83	0.90	5.86
TOTAL		1,131.81	469.46	33.20

Source: Merkel & Associates /Althouse and Meade 2017

¹ Impacts include both permanent and temporary impacts. Temporary impacts will be revegetated.

Table 2.3-6. Vegetation On-site Impacts - Safari Highlands Ranch Ownership Only

Vegetation Community	Total Project (On-site and Off-site) Existing Condition (acres)	On-site Existing Condition (acres)	Proposed Project On-site Impacts								Grand Total On-site Impacts (acres)
			Adopted South County MSCP		Draft North County MSCP		Adopted City of San Diego MSCP		Non-MSCP		
			Perm* Total (acres)	Temp** Total (acres)	Perm* Total (acres)	Temp** Total (acres)	Perm* Total (acres)	Temp** Total (acres)	Perm* Total (acres)	Temp** Total (acres)	
Ragweed Mesic Meadow	1.29	1.29	0.00	0.00	0.09	0.06	0.00	0.00	0.00	0.00	0.15
Mulefat Scrub	1.89	1.87	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.05
Oak Riparian Woodland	20.45	19.95	0.47	0.76	0.27	0.62	0.00	0.00	0.00	0.00	2.12
Oak Woodland	5.01	5.01	0.27	0.11	1.54	0.66	0.00	0.00	0.00	0.00	2.58
Cactus Scrub	0.63	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Diegan Coastal Sage Scrub (includes rock outcroppings)	574.83	561.95	166.87	56.26	0.00	0.00	0.00	0.00	0.00	0.00	223.13
Coastal Scrub-Chaparral Transitional (includes rock outcroppings)	67.70	67.70	18.01	7.18	1.72	<0.01	0.00	0.00	0.00	0.00	26.91
Southern Mixed Chaparral (includes rock outcroppings)	424.32	420.10	16.00	9.99	132.18	43.82	0.00	0.00	0.00	0.00	201.99
Non-native Grassland	7.88	7.88	2.05	0.43	0.15	0.43	0.00	0.00	0.00	0.00	3.06
Disturbed Habitat	18.84	11.26	4.40	1.13	2.50	0.54	0.00	0.00	0.00	0.00	8.57
Agricultural Lands	2.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Developed	6.83	0.97	0.70	0.01	0.18	0.01	0.00	0.00	0.00	0.00	0.90
Grand Total	1,131.81	1098.61	208.27	75.38	138.63	46.14	0.00	0.00	0.00	0.00	469.46

Source: Merkel & Associates / Althouse and Meade 2017

* Permanent Impacts consist of project development grading footprint and fuel modification zone I (FMZ I) areas that will be cleared and irrigated.

** Temporary Impacts consist of project fuel modification zone II (FMZ II) areas that will be maintained and thinned but not irrigated.

Table 2.3-7. Vegetation Off-site Impacts – Main Entrance Access Road and Two Emergency Access Roads

Vegetation Community	Total Project (On-site and Off-site) Existing Condition (acres)	Off-site Existing Condition (acres)	Proposed Project Off-site Impacts								Grand Total Off-site Impacts (acres)
			Adopted South County MSCP		Draft North County MSCP		Adopted City of San Diego MSCP		Non-MSCP		
			Perm* Total (acres)	Temp** Total (acres)	Perm* Total (acres)	Temp** Total (acres)	Perm* Total (acres)	Temp** Total (acres)	Perm* Total (acres)	Temp** Total (acres)	
Ragweed Mesic Meadow	1.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mulefat Scrub	1.89	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02
Oak Riparian Woodland	20.45	0.50	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.50
Oak Woodland	5.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cactus Scrub	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Diegan Coastal Sage Scrub (includes rock outcroppings)	574.83	12.88	1.35	0.13	9.29	0.00	1.48	0.00	0.41	0.22	12.88
Coastal Scrub-Chaparral Transitional (includes rock outcroppings)	67.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Southern Mixed Chaparral (includes rock outcroppings)	424.32	4.22	0.00	0.00	4.22	0.00	0.00	0.00	0.00	0.00	3.51
Non-native Grassland	7.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Disturbed Habitat	18.84	7.58	0.00	0.00	4.29	0.00	0.92	0.00	2.35	0.01	7.57
Agricultural Lands	2.14	2.14	0.00	0.00	0.00	0.00	0.00	0.00	2.14	0.00	2.14
Developed	6.83	5.86	0.00	0.00	0.00	0.00	2.93	0.00	1.94	0.99	5.86
Grand Total	1,131.81	33.20	1.35	0.13	18.30	0.00	5.33	0.00	6.84	1.24	33.20

Source: Merkel & Associates / Althouse and Meade 2017

*Permanent Impacts consist of project development grading footprint and fuel modification zone I (FMZ I) areas that will be cleared and irrigated.

**Temporary Impacts consist of project fuel modification zone II (FMZ II) areas that will be maintained and thinned but not irrigated.

Table 2.3-8. Project Habitat Conservation Open Space and Habitat Mitigation Ratios/Requirements

Vegetation Community	MSCP Tier	Total Project Site (On-site and Off-site) Acreage	Project Total Impacts	Approved MSCP Mitigation Ratio	Required Mitigation Acreage	Conservation Open Space	Conservation Open Space-Constrained	Total Proposed Conservation Open Space
Ragweed Mesic Meadow	I	1.29	0.15	2:1	0.30	0.99	0.15	1.14
Mulefat Scrub	I	1.89	0.07	2:1	0.14	1.82	0.00	1.82
Oak Riparian Woodland	I	20.45	2.62	3:1*	7.86	16.20	1.63	17.83
Oak Woodland	I	5.01	2.58	3:1*	7.74	2.43	0.00	2.43**
Cactus Scrub	II	0.63	0.00	1.5:1	0.00	0.63	0.00	0.63
Diegan Coastal Sage Scrub (includes rock outcroppings)	II	574.83	236.01	1.5:1	354.02	337.26	1.54	338.80***
Coastal Scrub-Chaparral Transitional (includes rock outcroppings)	II	67.70	26.91	1.5:1	40.37	40.78	0.00	40.78
Southern Mixed Chaparral (includes rock outcroppings)	III	424.32	206.21	1:1	206.21	206.30	11.82	218.12
Non-native Grassland	III	7.88	3.06	1:1	3.06	4.67	0.14	4.81
Disturbed Habitat	n/a	18.84	16.15	n/a	0.00	2.38	0.28	2.66
Agricultural Lands	n/a	2.14	2.14	n/a	0.00	0.00	0.00	0.00
Developed	n/a	6.83	6.76	n/a	0.00	0.07	0.00	0.07
Total:		1,131.81	502.66	-	619.70	613.53	15.56	629.09

Source: Merkel & Associates / Althouse and Meade 2017

* The applied mitigation ratio for oak riparian woodland and oak woodland impacts is from the MHCP and City of Escondido draft Subarea Plan since it is greater than the adopted South County MSCP mitigation ratio.

** The required project habitat mitigation for oak woodland (7.74 acres) would be met through on-site conservation of 2.43 acres of oak woodland as well as conservation of 5.31 acres of oak riparian woodland.

*** Proposed on-site habitat mitigation for Diegan coastal sage scrub is deficient by 15.22 acres and shall be met through a small amount of cactus scrub (0.63 acre) and an excess of 0.41 acre of coastal-scrub-chaparral transitional habitats to be conserved on-site as well as off-site habitat mitigation for the remainder 14.18 acres.

Although the project design features include 1) the conservation of 629.09 acres of on-site conservation open space that supports sensitive habitat in perpetuity, 2) an additional 128.6 acres of HOA maintained habitat open space providing a buffer between the proposed development footprint and proposed conservation open space to reduce edge effects such as invasive species into the conserved habitat, and 3) avoidance of oak riparian woodland except for necessary road crossings would lessen any potential adverse effects from the project to sensitive habitats, the residual impacts to sensitive habitats would be **potentially significant** under CEQA. Mitigation measures **MM BIO-1, MM BIO-2, MM BIO-3, MM BIO-7, and MM BIO-10 to MM BIO-13** would reduce these direct and indirect impacts to **less than significant** levels under CEQA. These applicable mitigation measures are provided below. Refer to **Appendix 2.3**, Section 4 for a discussion of potentially significant impacts and applicable mitigation measures; and Section 5 for complete list of project design features and mitigation measures.

Mitigation Measures

Implement mitigation measures **MM BIO-1; MM BIO-2; MM-BIO-7; and MM BIO-10 to MM BIO-13**.

Habitat Revegetation Plan

MM BIO-3 The restoration of temporarily impacted habitats within the HOA maintained habitat open space is proposed to prevent loss or degradation of adjacent sensitive communities and to maintain and facilitate habitat functions and values for special status species through contributory edge habitat and buffering from development. Specifically, this restoration is to minimize potential impact to the proposed habitat conservation open space that may result from spread of invasive species or sharp boundaries with developed lands. Areas where temporary, construction-related impacts have taken place (predominately within the proposed FMZ II zones, but also includes areas of grading for some roads, and vegetated water quality basins) shall be restored in accordance with a Habitat Revegetation Plan (HRP). The HRP shall prescribe restoration actions needed to treat temporarily disturbed soils and vegetation, in order to promote native species coverage, remove the establishment of damaging invasive species, and protect the integrity of the adjacent conserved habitat open space. The applicant shall contract a qualified restoration biologist, knowledgeable in upland and wetland habitat restoration to prepare the HRP.

The HRP shall set forth trigger points to identify where restoration shall be required in response to construction-related impacts. It shall also explicitly detail the process or processes required to restore these temporarily impacted areas. The HRP may include the following project-specific information and sections, where applicable and feasible:

1. Soils and Seed Bank Management
 - a. The HRP shall include details for topsoil salvage, where practical, and proper storage, and shall identify areas within the construction

- footprint where topsoil is present, supports native vegetation or common non-native grasses characteristic of the grasslands on the site, does not support dense weed infestations, and can be salvaged and stockpiled for later replacement following ground-disturbing activities.
- b. The HRP shall require that at 3 to 6 inches of topsoil be salvaged from the areas identified in the plan. These stockpiles shall not be mixed with spoil material, trash, materials such as road base or aggregate, or topsoil containing heavy weed seed banks. The allowable duration for stockpiling and management of stockpiles that will maintain healthy soil conditions shall be stipulated in the HRP. The HRP shall stipulate best management practices to discourage erosion of the topsoil stockpiles, including planting cover crops, roughening the pile, using fiber rolls, employing temporary stabilization measures, or other measures, as determined by the potential for erosion of the pile from rain and wind.
 - c. All redistribution of stored topsoil shall be completed prior to final site inspection (for the close of project construction work).
 - d. Areas where substantial soil compaction has occurred shall be treated with light ripping or other methods intended to rectify compaction, as recommended by the qualified restoration ecologist. The HRP shall outline the methods for assessing whether substantial compaction requiring active restoration has occurred.
 - e. No fertilization of disturbed soils shall be prescribed unless recommended by a qualified restoration ecologist. As appropriate, highly disturbed soils lacking topsoil replacement may be amended with certified weed-free mulch.
 - f. For wetlands and stream habitats where needs differ from the soil restoration needs in upland soils, the HRP shall stipulate measures to completely restore fragile soils in wetlands and to maintain existing streambed substrate characteristics following restoration of these habitats after temporary disturbance.
2. Temporary Disturbance Mapping
 - a. The HRP shall include detailed figures showing the areas proposed to be temporarily disturbed during project construction. Such figures shall be updated, as needed, to reflect design changes and areas requiring active restoration actions.
 3. Supplemental Restoration Actions
 - a. The HRP will stipulate specific performance criteria that identify when areas require additional methods beyond topsoil replacement and soil restoration. In areas requiring active reseeded beyond topsoil replacement, the species composition proposed for reseeded shall be substantially similar to or improve on pre-construction vegetation community composition, excluding invasive non-native species and

rare plant species. The latter may have very specific microhabitat requirements that may not be possible to replicate after disturbance. The intent of the seeding palettes shall be to opportunistically promote native species coverage, remove damaging invasive species, and preserve the integrity of the adjacent vegetation types present within the conserved open space on the site. When applicable, a description of the preferred methods for planting (e.g., hydroseeding, drill seeding, aerial broadcast seeding, or others) within differing habitats or impact types shall be provided, as well as details regarding irrigation, if needed. If seed is to be collected for redistribution from on-site species, collection protocols and areas shall be outlined.

4. Monitoring

- a. All areas subject to temporary disturbance and included in the restoration effort under the HRP shall be monitored by a qualified restoration ecologist so that restoration objectives can be assessed and relevant recommendations can be made to prevent loss or degradation of adjacent conserved habitats. Monitoring shall consist of both qualitative and quantitative assessment programs.
- b. Qualitative monitoring of the revegetation areas is sufficient to determine the periodic status and appropriate recommendations to ensure these areas meet the objective of the HRP.
- c. Qualitative survey results shall discuss species composition, growth and survivorship, germination success, invasive plant infestations, and erosion. The frequency of the monitoring would be determined by the qualified restoration ecologist that would implement the HRP. Brief monitoring reports shall be submitted to the City after qualitative monitoring events.

Timing/Implementation: Prior to the issuance of grading permits

Enforcement/Monitoring: City of Escondido Engineering and Planning Divisions

Level of Significance After Mitigation

Mitigation measure **MM BIO-1** will require preparation and implementation of a Biological Resource Management Plan for the 629.09 acres of habitat conservation open space to ensure the success of the proposed on-site conservation open space/ habitat mitigation areas required for compensation of permanent and temporary impacts to vegetative communities and habitat for several special status wildlife species.

To meet the mitigation ratio requirement for Diegan coastal sage scrub, mitigation measure **MM BIO-2** will require conservation of 14.18 acres of off-site Diegan coastal sage scrub habitat in perpetuity at an appropriate mitigation site or approved mitigation bank, in addition to the 629.09 acres of on-site habitat conservation. Further, an additional 17.23 acres of coastal sage scrub off-site conservation would be required to meet the MSCP coastal sage scrub habitat conservation goal of 64% for the Metro-Lakeside-Jamul Segment, as assessed in

the project MSCP Consistency Analysis Report. A total of 31.41 acres of coastal sage scrub habitat shall be conserved off-site in perpetuity.

Mitigation measure **MM BIO-3** will require the preparation and implementation of a Habitat Revegetation Plan for the 128.6 acres of HOA maintained habitat open space would contribute toward the success of the habitat conservation open space. The Habitat Revegetation Plan shall prescribe restoration actions needed to treat temporarily disturbed soils and vegetation, in order to promote native species coverage, remove the establishment of damaging invasive species, and protect the integrity of the adjacent conserved habitat open space. The applicant shall contract a qualified restoration biologist, knowledgeable in upland and wetland habitat restoration to prepare the HRP.

To avoid and/or minimize impacts to oak trees proposed to be conserved located adjacent to the project impact area, mitigation measure **MM BIO-7** will be implemented to require a 50-foot oak root zone buffer shall be delineated. Unavoidable construction activities within the buffer shall be monitored by an ISA-certified arborist. Oak trees within fuel modification zones shall be retained wherever practicable.

To ensure project artificial night lighting for the project development would not spill into the on-site habitat conservation open space, implementation of mitigation measure **MM BIO-10** will require preparation and implementation of a lighting plan or comparable document to shield and/or direct night lighting sources away from the on-site conservation open space.

To avoid inadvertent impacts, mitigation measure **MM BIO-11** will be implemented to require that a qualified biologist(s) be retained by the applicant before the start of vegetation/ground disturbance or site mobilization activities to monitor the project construction activities. The qualified biologist(s) shall monitor the installation of the construction temporary fencing and/or flagging, silt fencing, and other BMPs along the construction limits prior to construction activities; refer also to **Section 2.8, Hydrology and Water Quality**, for additional discussion. The qualified biologist shall be present during all initial vegetation clearing and grubbing ground-disturbing activities. Further, if a sensitive wildlife species is encountered within the project impact area during project construction, a pre-determined protocol shall be implemented to minimize losses of individual sensitive animals.

To avoid and minimize impacts to sensitive biological resources during construction, mitigation measure **MM BIO-12** will require that Biological Construction BMPs be implemented.

To avoid impacts to sensitive species during construction activities, mitigation measure **MM BIO-13** will be implemented to require the applicant to retain qualified biologists to prepare a Worker Environmental Awareness Program (WEAP) that shall be presented to all construction personnel and employees before any ground-disturbing activities commence at the project site. This presentation shall explain to construction personnel how best to avoid impacts to sensitive biological and jurisdictional resources during construction. The WEAP shall be implemented by the applicant before the start of vegetation clearing, grubbing, and/or ground disturbance and shall be continued through the construction phase for all new construction personnel.

Therefore, impacts would be **less than significant** with mitigation incorporated.

Threshold 3: Would the project have 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?

The proposed project would impact jurisdictional resources consisting of wetlands and non-wetlands regulated by the USACOE, CDFW, RWQCB, and/or County of San Diego; refer to **Figures 2.3-2A, 2.3-2B, and 2.3-2C**. Acreages for direct impacts to jurisdictional waters (wetlands and non-wetland waters/streambed), are summarized by jurisdiction in **Table 2.3-9**, below.

Table 2.3-9. Summary of Direct Impacts to Jurisdictional Resources

Wetland and Non-Wetland Jurisdictional Resources	Total Acreage within Project Site	Total Project Impacts	On-site		Off-site	
			ACOE, RWQCB, CDFW & County Jurisdiction	CDFW and County Jurisdiction Only	ACOE, RWQCB, CDFW & County Jurisdiction	CDFW and County Jurisdiction Only
<i>Wetland</i>						
Ragweed Mesic Meadow	1.29	0.15	0.15	0.00	0.00	0.00
Mulefat Scrub	1.89	0.07	0.00	0.05	0.00	0.02
<i>Non-Wetland/ Waterways</i>						
Oak Riparian (adjacent riparian)	20.45	2.53	0.00	2.03	0.00	0.50
Non-wetland waters of the U.S. and streambeds	1.58* (approx 10,700 linear feet)	1.58	0.66	0.71	0.05	0.16
Total (acreage):	25.21	4.33	0.81	2.79	0.05	0.68

*Only those areas of the drainages located within the proposed project impact areas were delineated and quantified in this table.

Although the project design features including the avoidance of oak riparian woodland habitat (jurisdictional resource), permanent conservation of habitat including jurisdictional resources, and the control of stormwater runoff through a comprehensive water retention system that would lessen potential adverse effects from the project to jurisdictional resources, the residual project impacts to jurisdictional resources would be **potentially significant** under CEQA. Mitigation measures **MM BIO-4, MM BIO-5, MM BIO-6, MM BIO-11, MM BIO-12, and MM BIO-13** would reduce these impacts to **less than significant** levels under CEQA. These applicable mitigation measures are provided below. Refer to Section 4 of **Appendix 2.3** for a discussion of potentially significant impacts and applicable mitigation measures; and Section 5 for complete list of project design features and mitigation measures.

In addition, the project is required to obtain a Clean Water Act Section 404 permit, a CWA Section 401 water quality certification, and a CDFW Streambed Alteration Agreement from the applicable regulatory agencies for impacts to jurisdictional resources.

Mitigation Measures

Implement mitigation measures **MM BIO-11** to **MM BIO-13**.

Jurisdictional Resources Mitigation

MM BIO-4 To compensate for permanent impacts to federally and/or state jurisdictional wetlands (e.g., ragweed mesic meadow, mulefat scrub) in compliance with the no net loss policy, the project shall create ragweed mesic meadow and mulefat scrub habitat at a minimum 1:1 mitigation ratio, with the residual amount based on a 1:1 mitigation ratio being implemented through creation, restoration, and/or enhancement, both to be implemented either (1) within an appropriate mitigation location on-site within the proposed habitat conservation open space to ensure conservation and management in perpetuity; or (2) within an off-site agency-approved wetland mitigation bank. Wetland mitigation requirement total acreage for the project would be 0.30 acre of ragweed mesic meadow and 0.14 acre of mulefat scrub.

To compensate for permanent impacts to oak riparian woodland habitat, the project shall mitigate at a 3:1 ratio for a total of 7.59 acres of oak riparian woodland.

To compensate for permanent impacts to non-wetland waters of the U.S./streambed impacts shall be mitigated at a 1:1 ratio (linear feet preserved: linear feet impacted) for a total of 10,700 linear feet.

Project jurisdictional resource mitigation shall be consistent with wetland regulatory permits and/or agreement conditions of approval.

The applicant shall verify the total acreages required to meet all compensatory wetland mitigation obligations and submit these totals to the City prior to issuance of the first grading permit. The applicant shall then obtain City and wetland regulatory agency approval of the conceptual wetland mitigation plan, the holder of conservation easement(s), and the restrictions created for the permanent protection of these wetland mitigation lands. Documentation of such recorded easement(s) shall be submitted to and approved by the City and regulatory agencies. The City shall review all legal documentation and agreements associated with the establishment and recordation of separate conservation easement(s) for the wetland mitigation sites, if not already within the conservation easement for the proposed reserve, and securing a conservation lands management entity or qualified easement holder/manager.

Timing/Implementation: *Prior to issuance of a grading permit*

Enforcement/Monitoring: *City of Escondido Engineering and Planning Divisions*

Conceptual Wetland Mitigation Plan

MM BIO-5 A project conceptual wetland mitigation plan shall be prepared to present the required mitigation by jurisdictional agencies in order to achieve a “no net loss” of wetland habitats (e.g., mitigation through wetland creation, restoration, and/or enhancement). The conceptual mitigation plan shall provide conceptual revegetation plans, including site preparation, consideration for hydrology and flood flows, planting designs and materials, as well as maintenance and monitoring success criteria and schedule requirements.

Timing/Implementation: Prior to issuance of a grading permit

Enforcement/Monitoring: City of Escondido Engineering and Planning Divisions

Jurisdictional Resources Impact Avoidance/Minimization

MM BIO-6 All jurisdictional resources in the project impact area shall be clearly shown on project plans and the project impacts limits marked with highly visible flagging, rope, or similar materials in the field. Further, jurisdictional resources in proximity to impact/construction areas that are to be avoided shall be fenced or flagged for avoidance prior to construction, and a biological monitor shall be present to ensure compliance with avoidance areas. Project staging and laydown activities shall not occur within jurisdictional resources during construction. Access allowed within these features for the purposes of construction in and near such features (e.g., road crossings) shall be clearly delineated on project plan sets, and these allowed work limits shall also be staked in the field, to prevent construction personnel/equipment from impacting avoidance areas in close proximity. Where necessary, silt fencing and/or other stormwater BMPs shall be used to protect adjacent jurisdictional resources from sediment transport or other potential indirect runoff/erosion impacts that could result from adjacent grading through the implementation of a stormwater pollution prevention plan (SWPPP) during construction.

The applicant shall demonstrate to the City that the project is in compliance with the jurisdictional resource avoidance/minimization measures through preparation and submission of monitoring reports on a monthly basis that document ongoing biological monitoring activities.

Timing/Implementation: Prior to construction activities

Enforcement/Monitoring: City of Escondido Engineering and Planning Divisions

Level of Significance After Mitigation

To compensate for permanent impacts to federally and/or state jurisdictional wetlands (e.g., ragweed mesic meadow, mulefat scrub) in compliance with the no net loss policy, mitigation measure **MM BIO-4** will require that the project create ragweed mesic meadow and mulefat scrub habitat at a minimum 1:1 mitigation ratio, with the residual amount based on a 1:1 mitigation ratio being implemented through creation, restoration, and/or enhancement. Wetland mitigation requirement total acreage for the project would be 0.30 acre of ragweed

mesic meadow and 0.14 acre of mulefat scrub. To compensate for permanent impacts to oak riparian woodland habitat, the project shall mitigate at a 3:1 ratio for a total of 7.59 acres of oak riparian woodland. To compensate for permanent impacts to non-wetland waters of the U.S./streambed impacts shall be mitigated at a 1:1 ratio (linear feet preserved: linear feet impacted) for a total of 10,700 linear feet. project jurisdictional resource mitigation shall be consistent with wetland regulatory permits and/or agreement conditions of approval.

To ensure the success of the wetland mitigation, mitigation measure **MM BIO-5** will be implemented to require that a project conceptual wetland mitigation plan be prepared to present the required mitigation by jurisdictional agencies in order to achieve a “no net loss” of wetland habitats (e.g., mitigation through wetland creation, restoration, and/or enhancement). The conceptual mitigation plan shall provide conceptual revegetation plans, including site preparation, consideration for hydrology and flood flows, planting designs and materials, as well as maintenance and monitoring success criteria and schedule requirements.

To avoid and/or minimize impacts to jurisdictional resources, mitigation measure **MM BIO-6** will be implemented to require that jurisdictional resources in the project impact area be clearly shown on project plans and the project impacts limits marked with highly visible flagging, rope, or similar materials in the field. Further, jurisdictional resources in proximity to impact/construction areas that are to be avoided shall be fenced or flagged for avoidance prior to construction, and a biological monitor shall be present to ensure compliance with avoidance areas. Project staging and laydown activities shall not occur within jurisdictional resources during construction.

To avoid inadvertent impacts, mitigation measure **MM BIO-11** will require that a qualified biologist(s) be retained by the applicant before the start of vegetation/ground disturbance or site mobilization activities to monitor the project construction activities. The qualified biologist(s) shall monitor the installation of the construction temporary fencing and/or flagging, silt fencing, and other BMPs along the construction limits prior to construction activities. The qualified biologist shall be present during all initial vegetation clearing and grubbing ground-disturbing activities. Further, if a sensitive wildlife species is encountered within the project impact area during project construction, a pre-determined protocol shall be implemented to minimize losses of individual sensitive animal.

To avoid and/or minimize impacts to jurisdictional resources during construction, mitigation measure **MM BIO-12** will be implemented to require that Biological Construction BMPs be implemented.

To avoid impacts to sensitive species during construction activities, mitigation measure **MM BIO-13** will require the applicant to retain qualified biologists to prepare a Worker Environmental Awareness Program (WEAP) that shall be presented to all construction personnel and employees before any ground-disturbing activities commence at the project site. This presentation shall explain to construction personnel how best to avoid impacts to sensitive biological and jurisdictional resources during construction. The WEAP shall be implemented by the applicant before the start of vegetation clearing, grubbing, and/or ground disturbance and shall be continued through the construction phase for all new construction personnel.

Therefore, impacts would be **less than significant** with mitigation incorporated.

Threshold 4: Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The proposed project would retain large blocks of contiguous native habitat including suitable nesting habitat for continue use by native wildlife species but reduce the size and availability of native vegetation within the project site and increase habitat fragmentation for select sensitive species (e.g., sensitive amphibians, reptiles and rodents). Proposed off-site emergency road improvements would not substantially affect wildlife movement primarily since these roads would not be in use or available for vehicular access except in the case of an emergency. In addition, the temporarily impacted areas along these roads would be revegetated with appropriate native species. No regional wildlife corridors/linkages identified in the approved MSCP Plan and the draft North County MSCP occur on-site. Identified regional corridors/linkages that occur generally in the project area consist of Guejito Canyon, Boden Canyon, and San Pasqual Valley; refer to **Figures 2.3-6** and **2.3-7**. The project would not impact or obstruct a designated regional wildlife corridor/linkage.

Three local wildlife movement corridors occur on-site consisting of the main drainage (primary riparian corridor), smaller ephemeral drainage (secondary riparian corridor), and a dirt access path; refer to **Figures 2.3-6** and **2.3-7**. Both the primary and the secondary riparian corridor movement routes through the property are proposed to be retained through the use of wildlife undercrossings and the conservation of these corridors within open space. The proposed widths of the primary and secondary wildlife movement routes would generally retain the existing widths along these corridors, except where wildlife undercrossings are proposed. It is expected that the primary and secondary riparian corridor widths and buffering from development through the HOA maintained habitat open space would provide for continued local wildlife movement through the site. The existing main dirt road/path local corridor would be severed by the proposed project footprint and local movement would be expected to be focused on the primary and secondary riparian corridors.

Implementation of the proposed project design features including appropriately sized wildlife undercrossings; fencing to direct wildlife to the undercrossings and away from the roadway; speed limits; and traffic calming measures such as speed bumps or rumble strips; would lessen potential adverse effects related to vehicle-wildlife collisions, roadkills, and wildlife movement corridor impacts.

Given the local nature of the wildlife movement corridors on-site, the retention of two of the three movement routes identified, including the primary route, and the project design features including the conservation of large blocks of contiguous native habitat and the implementation of wildlife undercrossings, the proposed habitat fragmentation and the blockage of one secondary local wildlife route would be considered a **less than significant** impact.

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

Tree Preservation

As previously stated, City of Escondido Zoning Code Article 55, Section 33-1069 includes vegetation and replacement standards for impacts to mature and/or protected trees (e.g., oaks) and defines the characteristics of such trees for the purpose of protection and/or requirements for replacement if removed.

The project site supports 25.21 acres of oak woodland/oak riparian woodland habitat as well as approximately 889 individual oak trees (e.g., coast live oak, Engelmann oak). A total of 5.2 acres of oak woodland habitat/oak riparian woodland, as well as 417 individual oak trees, would be removed or otherwise impacted with project implementation. A total of 20.26 acres of oak woodland/oak riparian woodland habitat and 472 individual oak trees would be preserved in proposed permanent on-site habitat conservation open space.

The project design features include the conservation of oak woodland/oak riparian woodland habitat on-site in perpetuity and the avoidance of oak riparian woodland habitat that would lessen potential adverse effects from the project to mature and/or protected trees. Nonetheless, the residual project impacts to oak trees protected under the City's Municipal Code (Section 33-1069) would be **potentially significant** under CEQA and would require mitigation measures to reduce impacts to a level below significance. Mitigation measures **MM BIO-1** and **MM BIO-7** would reduce these potential significant impacts to **less than significant** under CEQA. Refer to **Appendix 2.3**, Section 4 for a discussion of potentially significant impacts and applicable mitigation measures; and Section 5 for a complete list of project design features and mitigation measures.

As such, the project would not conflict with the City's Municipal Code (Section 33-1069) of any local policies or ordinances protecting biological resources such as a tree preservation policy or ordinance.

Mitigation Measures

Implement mitigation measures **MM BIO-1** and **MM BIO-7**.

Level of Significance After Mitigation

Mitigation measure **MM BIO-1** will require the preparation and implementation of a Biological Resource Management Plan for the 629.09 acres of habitat conservation open space to ensure the success of the proposed on-site conservation open space/habitat mitigation areas required for compensation of permanent and temporary impacts to vegetative communities and habitat for several special status wildlife species.

To avoid and/or minimize impacts to oak trees located adjacent to the project impact area (to be conserved as part of the proposed project), mitigation measure **MM BIO-7** will require delineation of a 50-foot oak root zone buffer. Unavoidable construction activities within the buffer shall be monitored by an ISA-certified arborist. Oak trees within fuel modification zones shall be retained wherever practicable.

Therefore, impacts would be **less than significant with mitigation incorporated**.

Threshold 6: Would the project conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?

A MSCP Consistency Analysis Report was prepared for the proposed project to address how the proposed project would meet the applicable MSCP findings, criteria, and/or goals within the adopted South County MSCP Subarea Plan, draft North County MSCP Planning Agreement, and adopted City of San Diego MSCP Subarea Plan; refer to Appendix G of **Appendix 2.3**. In summary, the proposed project habitat mitigation is consistent with mitigation ratios of the adopted South County MSCP as well as planned conservation levels of habitat and species-specific conditions. In addition, the project is consistent with the project design criteria, preserve design criteria, and corridor design criteria specified in the South County MSCP Findings, North County MSCP Planning Agreement, and City of San Diego MSCP Findings and Adjacency Guidelines. As provided in Section 1.4.3 of the biological technical report (refer to **Appendix 2.3**), although the proposed project generally applies the criteria/standards and mitigation ratios from the adopted South County MSCP and analyzes consistency with the South County MSCP, North County MSCP Planning Agreement, and adopted City of San Diego MSCP, the project is also consistent with the unadopted draft City of Escondido Subarea Plan as well as the adopted subregional MHCP.

Further, as provided in the County's MSCP Implementing Agreement, "In the event land within the County's jurisdiction is annexed to another jurisdiction, an agreement shall be reached between the County, the annexing jurisdiction, the USFWS, and CDFW, as part of the annexation process, to ensure that any development of the annexed lands proceeds in accordance with the conservation goals of the MSCP...." In addition, the City of Escondido draft Subarea Plan specifies in Section 6.6 for Annexations that future annexations of land to the City must be covered by the requirements of an NCCP Subarea Plan. It further states that if an approved County Subarea Plan and implementation agreement exists for the area being annexed, the approved County Subarea Plan applies. In addition, for annexations of land greater than 10 acres that require take authorizations for development, the City will work cooperatively with the County of San Diego to ensure consistency between the City's Subarea Plan and County MSCP, as well as consult with the Wildlife Agencies.

The project applicant has been and plans to continue to work cooperatively with the County, City, and Wildlife Agencies toward an annexation agreement. Although the annexation of lands to the City of Escondido could provide take for Covered Species within the project site development, the proposed conservation and loss acreages would be retained within the County's MSCP tracking. The proposed conservation would contribute to County habitat conservation goals as provided in the MSCP and the County would retain conservation allocation accounting opportunity to fulfill MSCP preserve goals. Therefore, the project would not jeopardize the buildout of the adopted County MSCP preserve, nor would it preclude or prevent the preparation of the draft North County MSCP, and would be in accordance with the conservation goals of the MSCP.

As such, the project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or any other applicable conservation plan. Impacts would be **less than significant**.

2.3.6. Sources Cited

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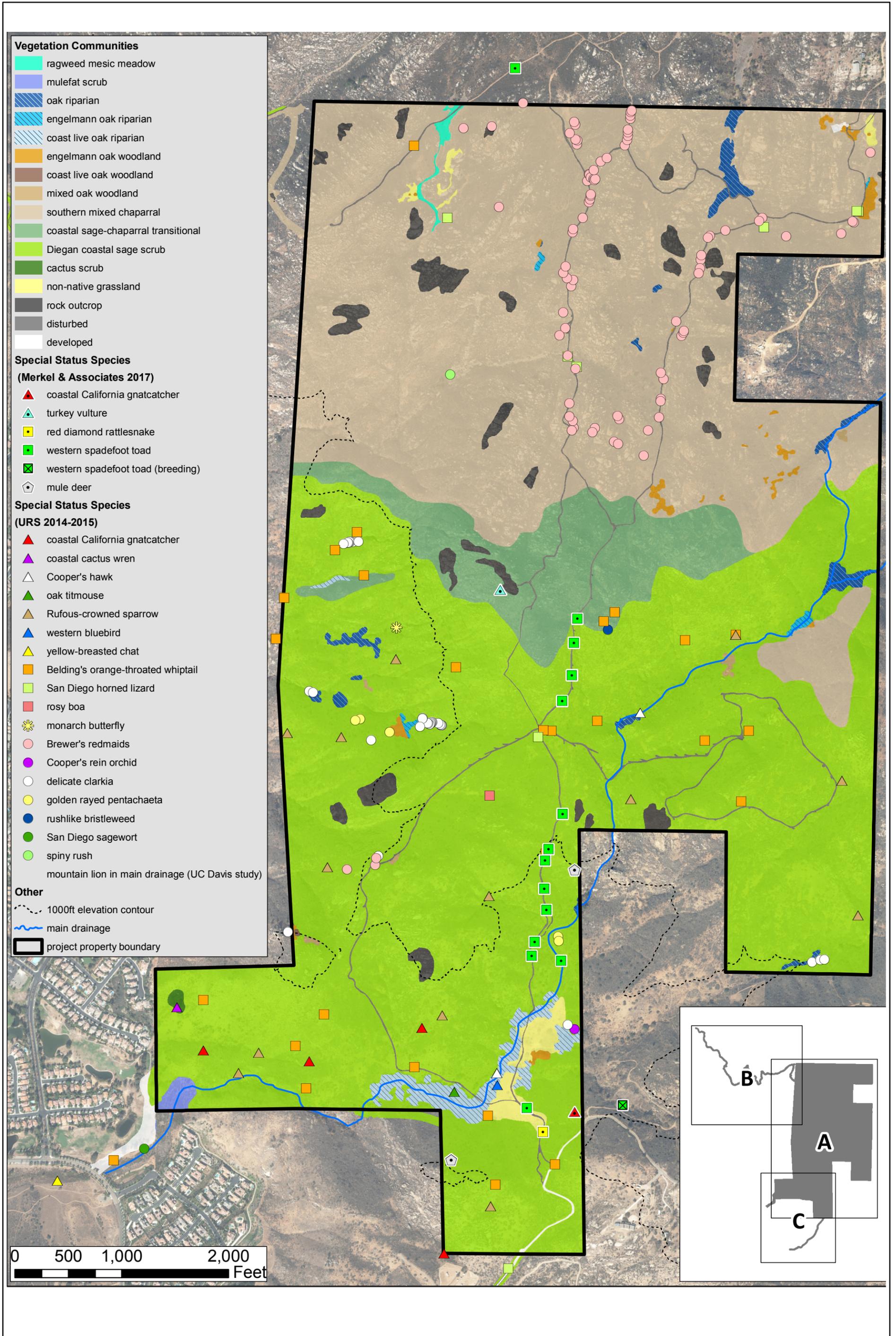
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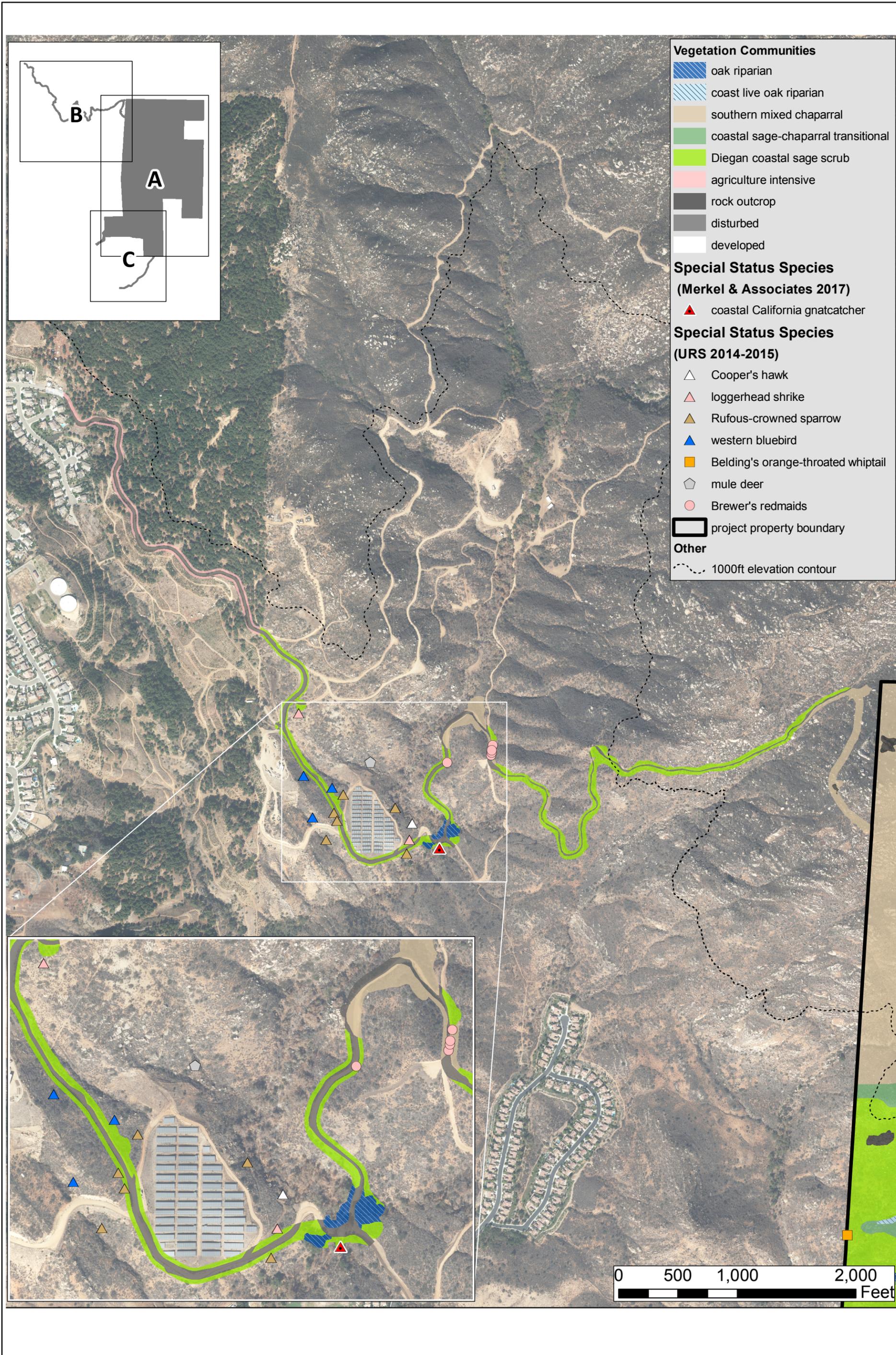
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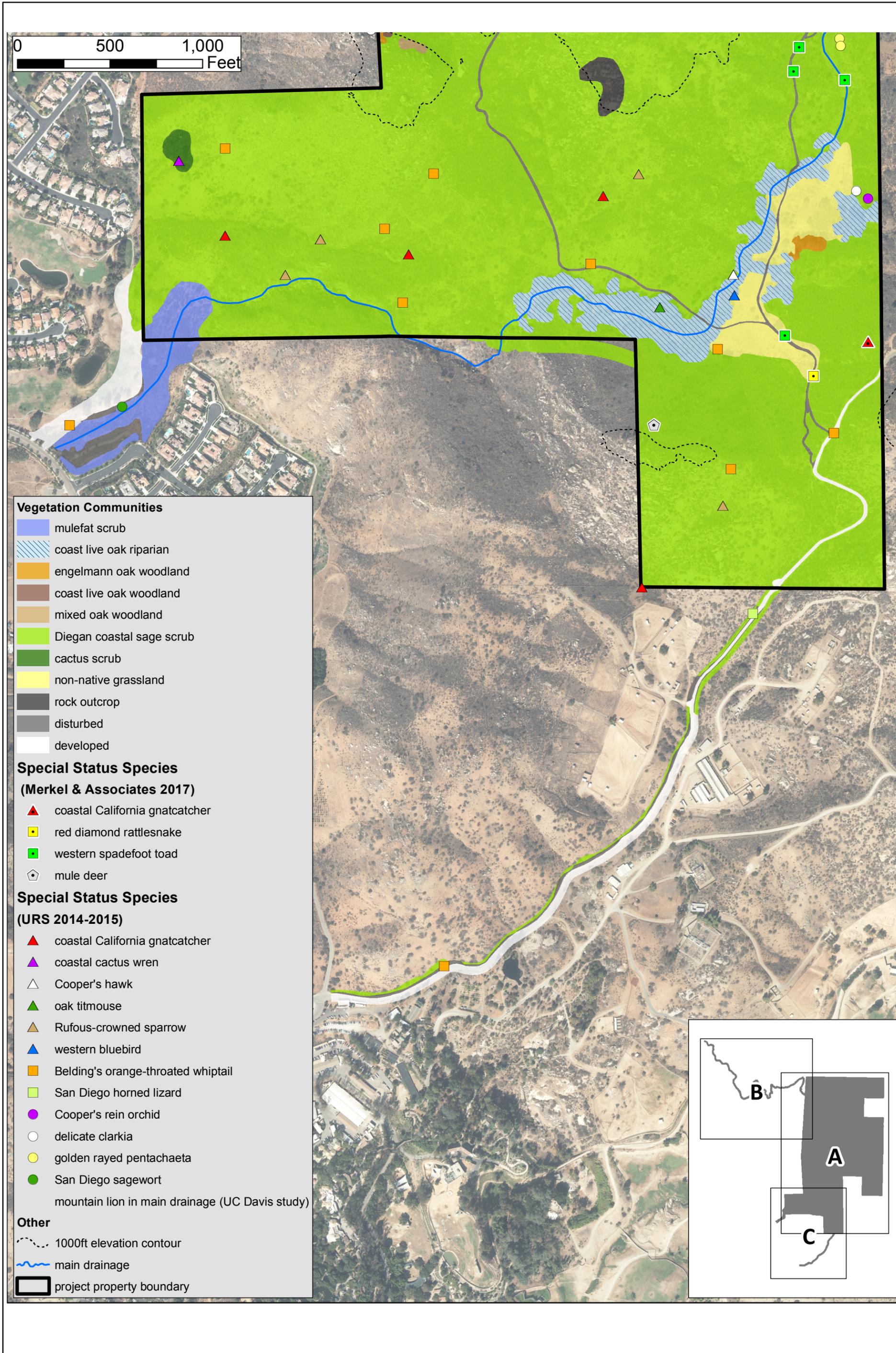
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Jurisdictional Resources

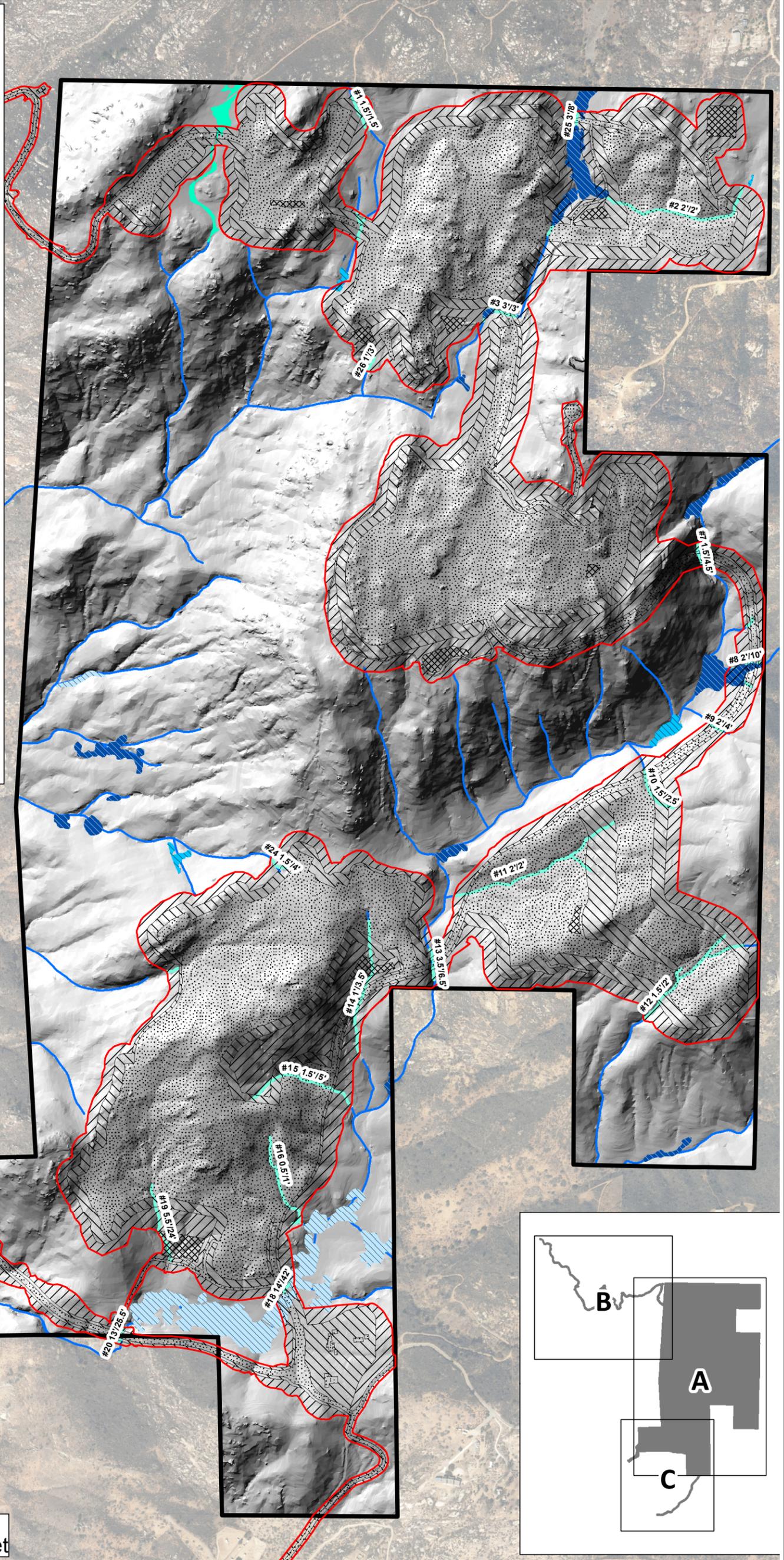
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- mulefat scrub (CDFW, County)
- oak riparian (CDFW, County)
- engelmann oak riparian (CDFW, County)
- coast live oak riparian (CDFW, County)
- non-wetland waters of the U.S./streambed (label = drainage # and avg USACOE/CFDW width)

Project Impacts

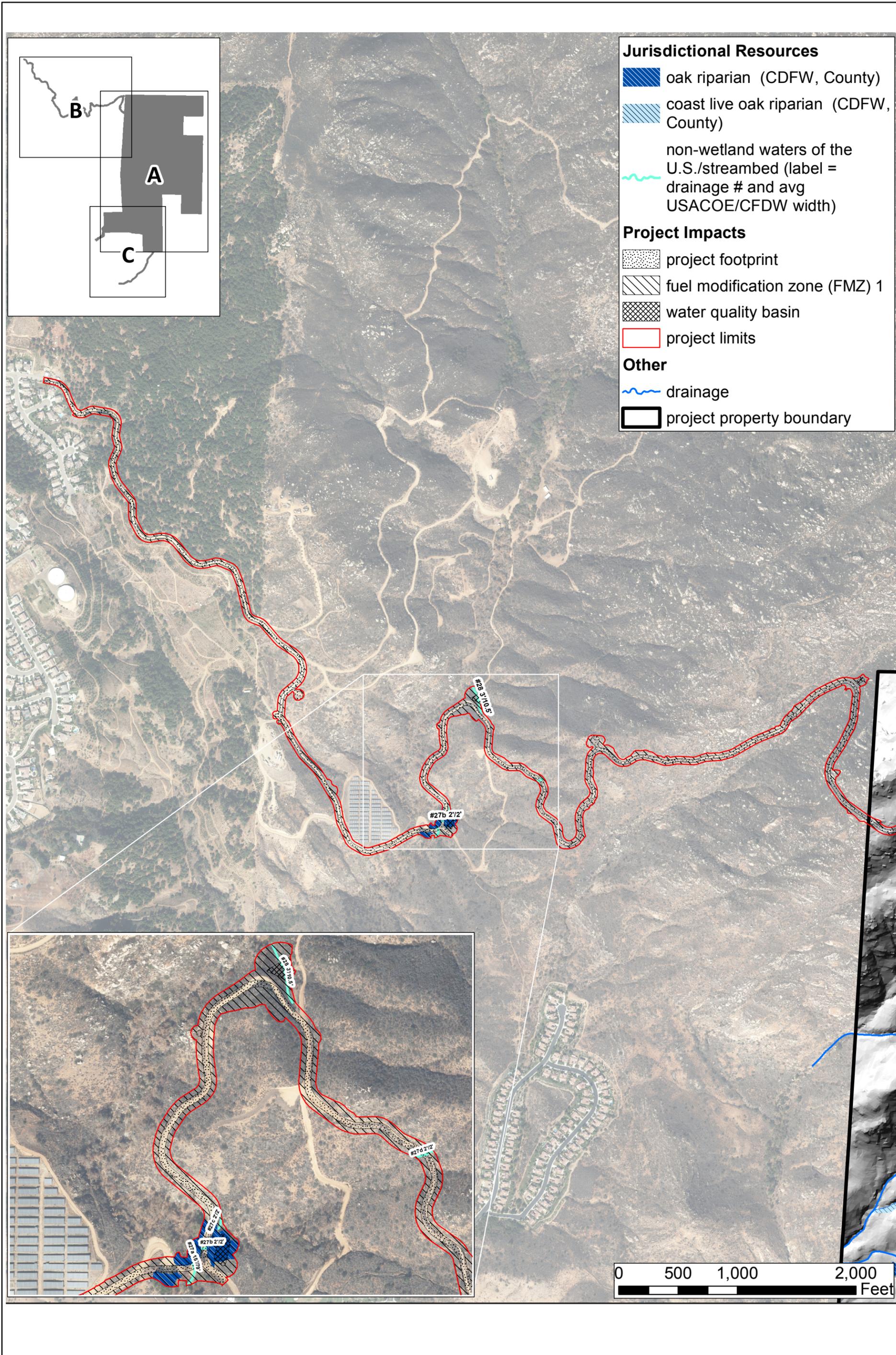
- project footprint
- fuel modification zone (FMZ) 1
- HOA maintained habitat open space/FMZ 2
- water quality basin
- project limits

Other

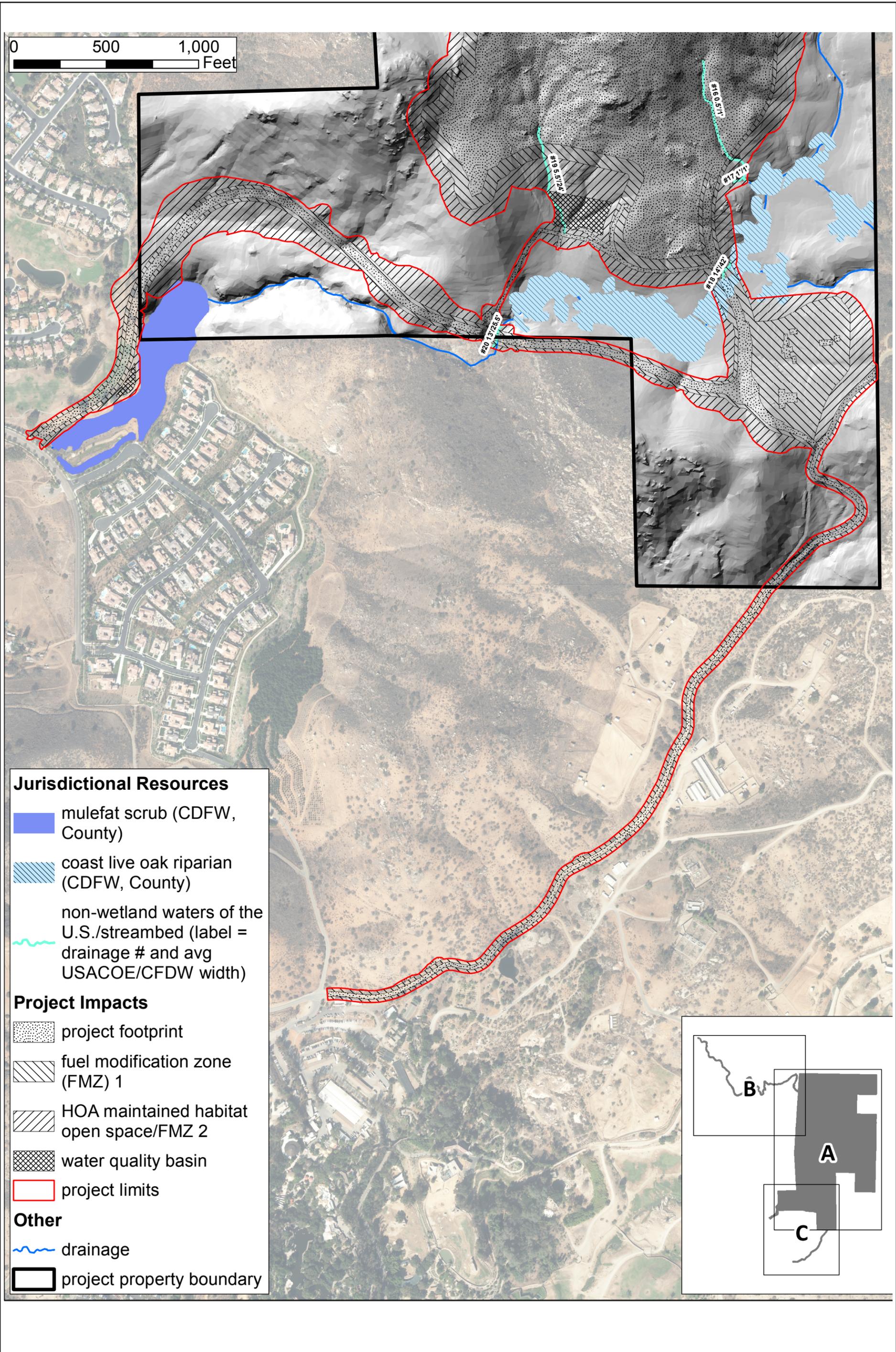
- drainage
- project property boundary



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Jurisdictional Resources

- mulefat scrub (CDFW, County)
- coast live oak riparian (CDFW, County)
- non-wetland waters of the U.S./streambed (label = drainage # and avg USACOE/CFDW width)

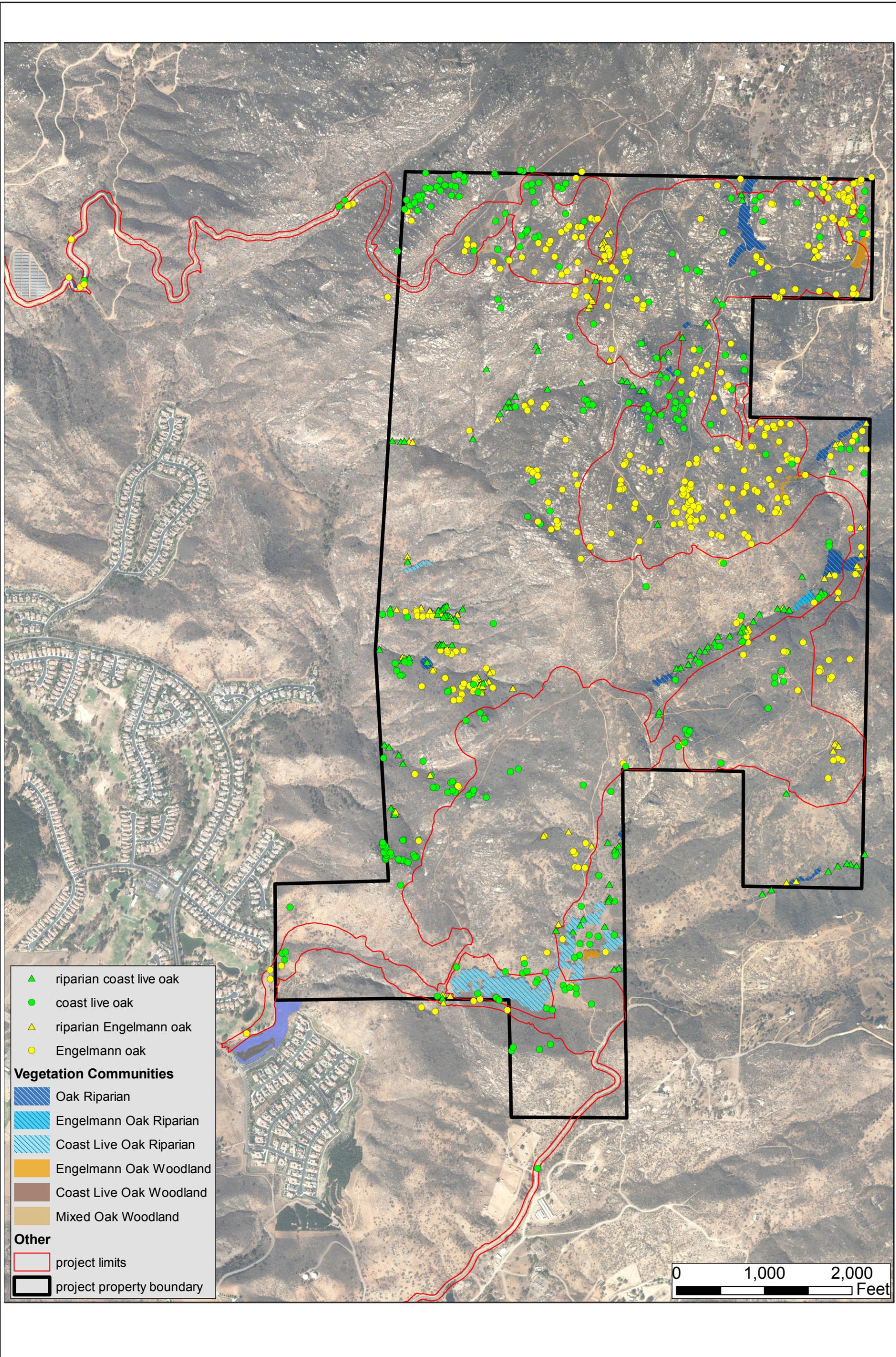
Project Impacts

- project footprint
- fuel modification zone (FMZ) 1
- HOA maintained habitat open space/FMZ 2
- water quality basin
- project limits

Other

- drainage
- project property boundary

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- ▲ riparian coast live oak
- coast live oak
- ▲ riparian Engelmann oak
- Engelmann oak

Vegetation Communities

- ▨ Oak Riparian
- ▨ Engelmann Oak Riparian
- ▨ Coast Live Oak Riparian
- Engelmann Oak Woodland
- Coast Live Oak Woodland
- Mixed Oak Woodland

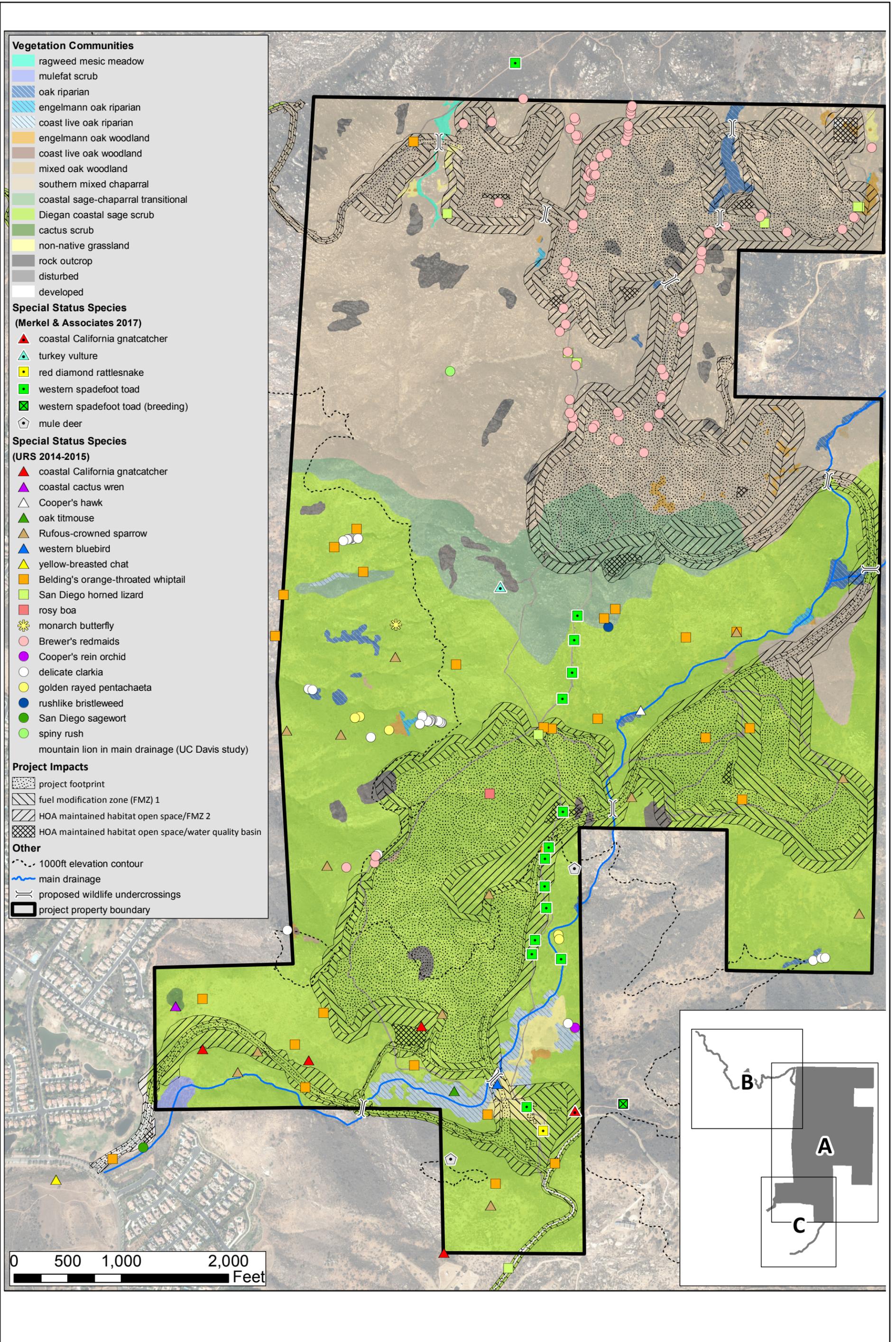
Other

- ▭ project limits
- ▭ project property boundary

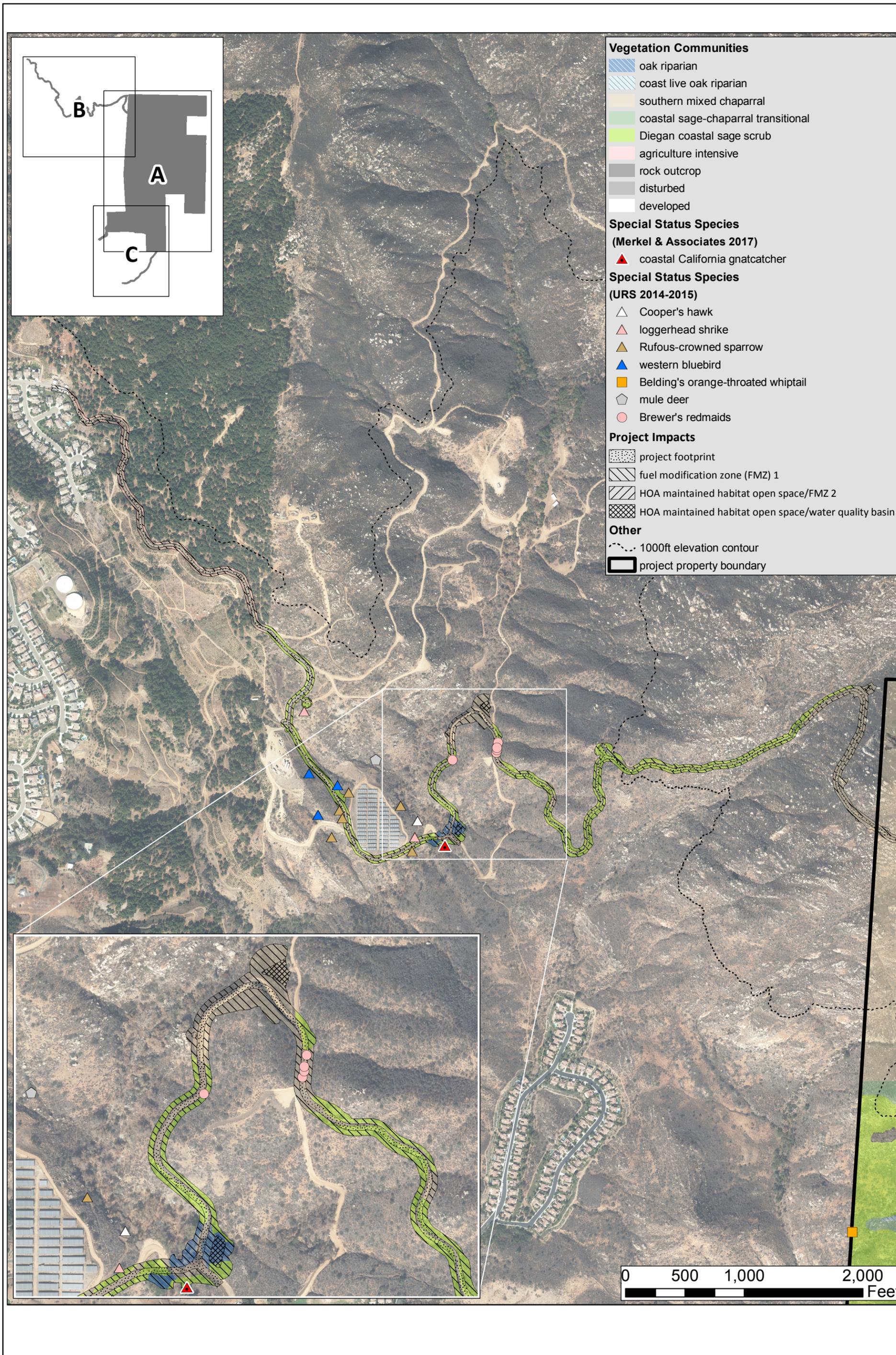
0 1,000 2,000
Feet



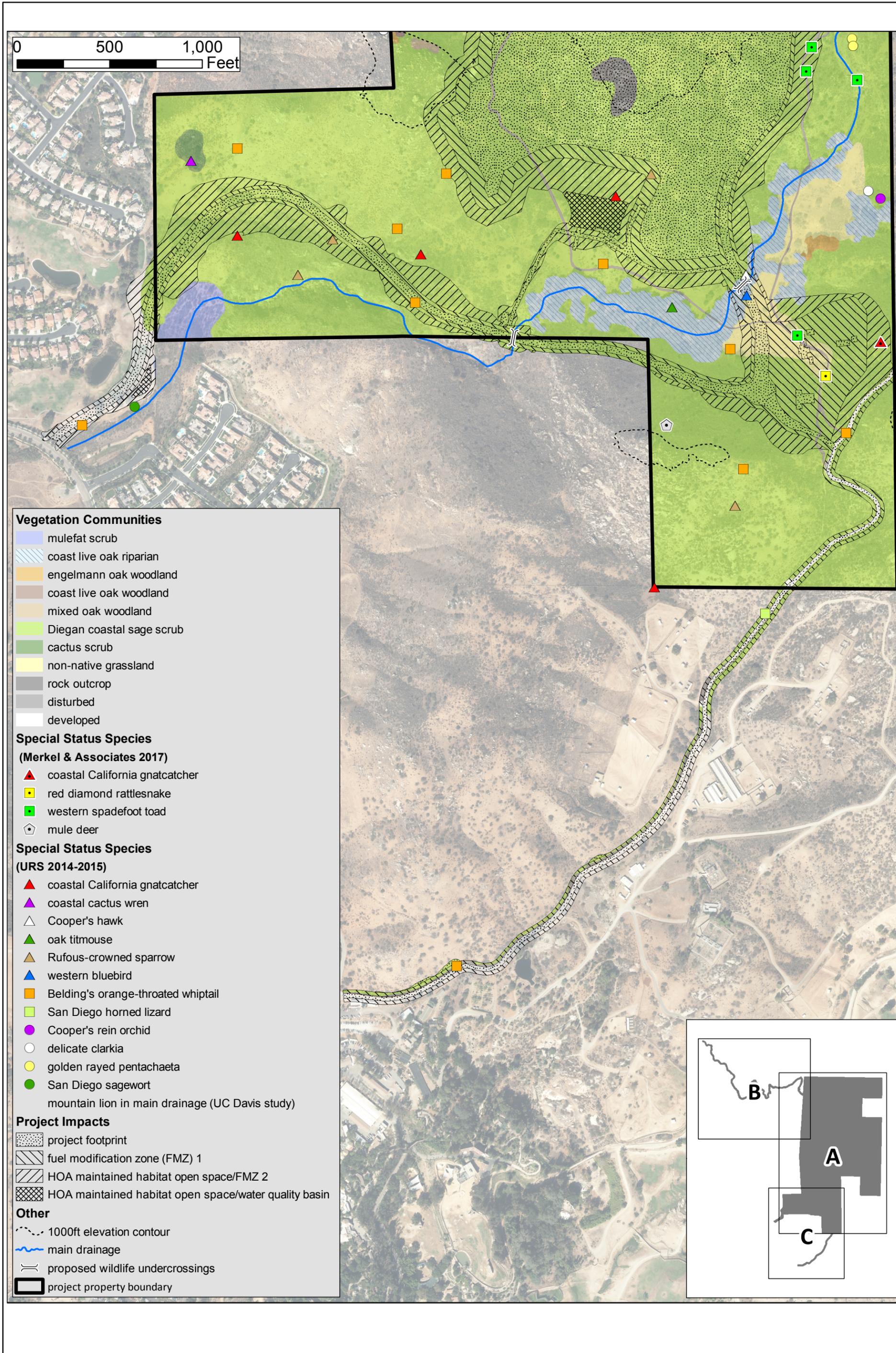
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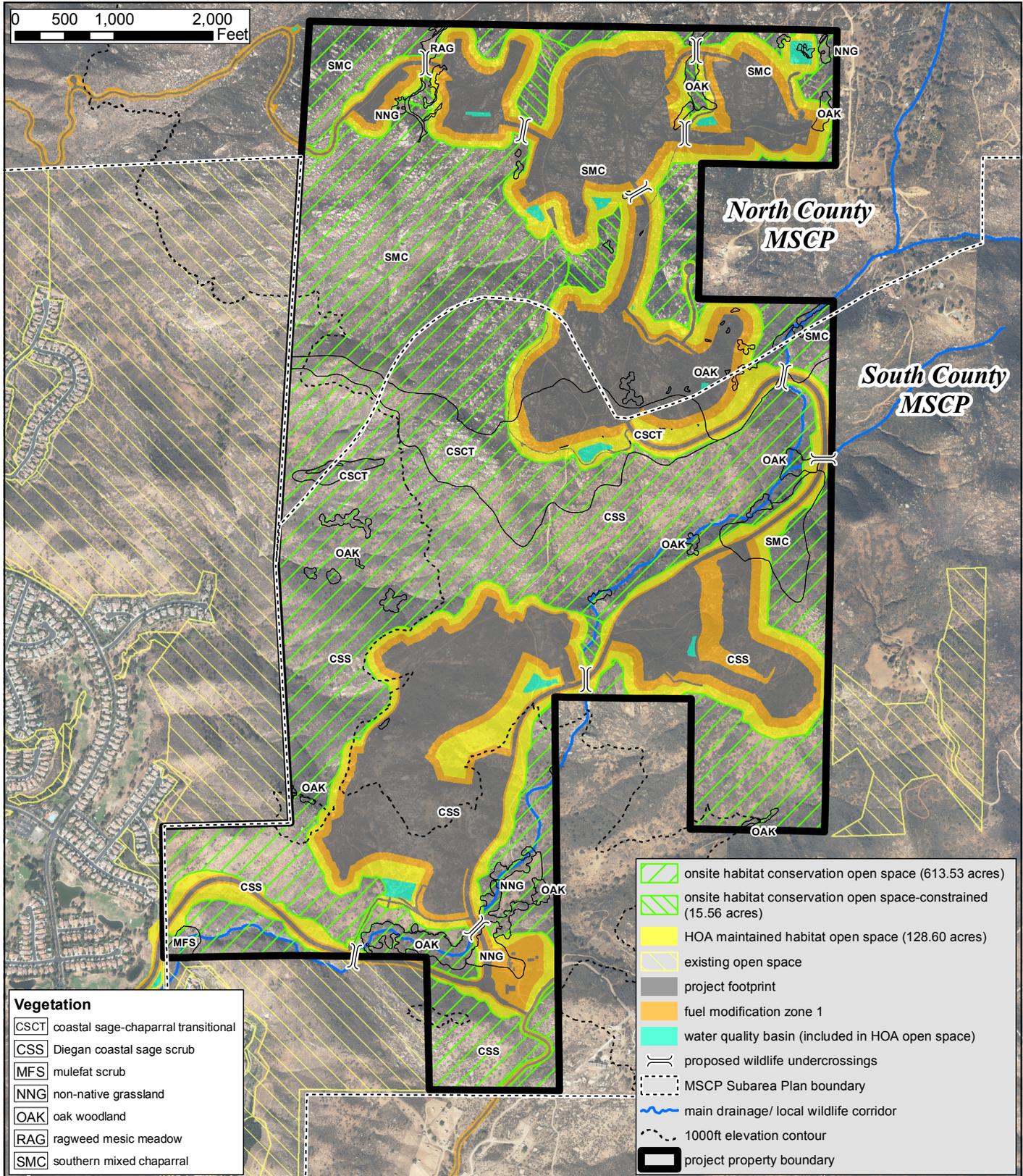
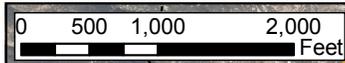
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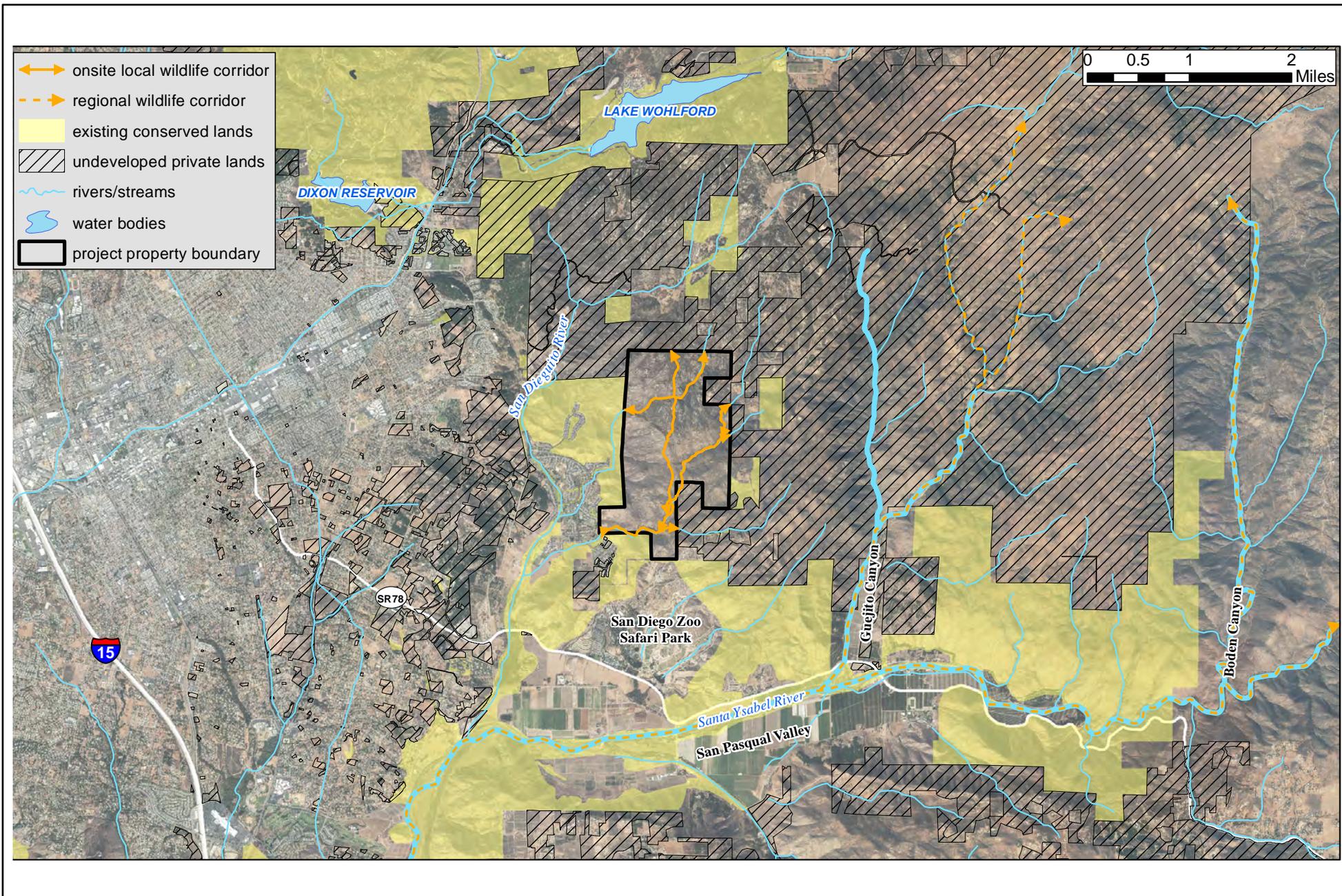
Vegetation

C SCT	coastal sage-chaparral transitional
C SS	Diegan coastal sage scrub
M FS	mulefat scrub
N NG	non-native grassland
O AK	oak woodland
R AG	ragweed mesic meadow
S MC	southern mixed chaparral

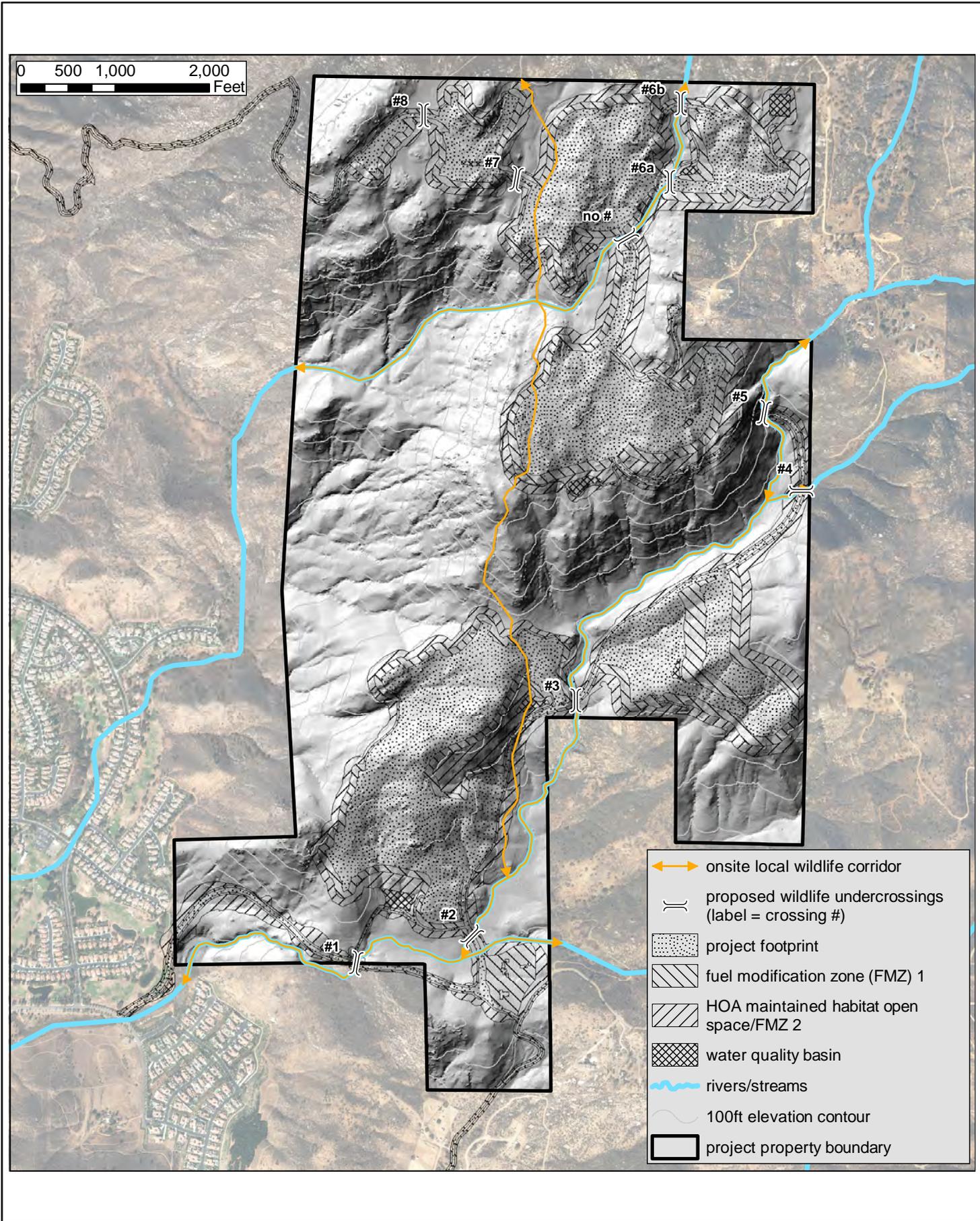
	onsite habitat conservation open space (613.53 acres)
	onsite habitat conservation open space-constrained (15.56 acres)
	HOA maintained habitat open space (128.60 acres)
	existing open space
	project footprint
	fuel modification zone 1
	water quality basin (included in HOA open space)
	proposed wildlife undercrossings
	MSCP Subarea Plan boundary
	main drainage/ local wildlife corridor
	1000ft elevation contour
	project property boundary



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