SUMMIT ESTATES PROJECT: BIOLOGICAL RESOURCES LETTER REPORT

COUNTY PROJECT NUMBER: MPA-18-023

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Prepared for The County of San Diego

SUMMARY

2510 Summit, LLC (Summit) proposes to construct a 20-unit single-family residential development at the subject project site southeast of the intersection of Summit Drive and Palma Vista Court, near the City of Escondido in an unincorporated section of San Diego County (County), California. The project site is within Assessor's Parcel Number (APN) 237-090-05, with an area totaling approximately 22.20 acres. In addition, as required by the County, LSA surveyed an additional 100-foot buffer surrounding the project boundary, which includes portions of several other APNs. This survey area (the project site plus the 100-foot mapping buffer) is referred to as the Biological Study Area (BSA) and totals approximately 33.09 acres.

The BSA consists of nonnative grassland, nonnative riparian, disturbed habitat, and developed land. Three potentially jurisdictional drainage features convey flows through the eastern portion of the BSA. An existing open space easement abuts the lower eastern edge of the property boundary, within the BSA. There are no special-status plant species with a moderate or higher potential to occur within the BSA, based on the results of a database records search, observations made during the general biological resources survey, and the absence of suitable habitat on site. No special-status plant species were observed during the general biological resources survey. Although no special-status wildlife species were observed during the general biological resources survey, the following special-status species have a moderate potential to occur within the BSA, based on the results of the database records search of a 2-mile radius around the BSA and observations made during the survey: Cooper's hawk (*Accipiter cooperi*), sharp-shinned hawk (*Accipiter striatus*), red-shouldered hawk (*Buteo lineatus*), turkey vulture (*Cathartes aura*), common barn owl (*Tyto alba*), and pallid bat (*Antrozous pallidus*). This list contains species that are not considered special-status by federal or State governments, but were included in the biological resources scoping attachment to the major pre-application scoping letter provided by the County (County 2019).

The project is expected to permanently affect 17.14 acres of nonnative grassland, 0.38 acre of disturbed habitat, and 0.33 acre of developed land and will avoid affecting all potentially jurisdictional aquatic resources present in the BSA. Mitigation is not required for permanent impacts to disturbed habitat, ornamental, and developed land; however, 8.57 acres of mitigation is required for impacts to nonnative grassland. Summit will purchase 8.57 acres of grassland credits at a mitigation bank to mitigate for impacts to nonnative grassland. Summit will create an open space easement along the eastern edge of the property to protect the potentially-jurisdictional aquatic resources.

INTRODUCTION, PROJECT DESCRIPTION, LOCATION, AND SETTING

Summit proposes to construct a 20-unit single-family residential development at the subject project site southeast of the intersection of Summit Drive and Palma Vista Court near the City of Escondido in an unincorporated section of San Diego County, California (Figure 1). The project site is approximately 22.20 acres and is within APN 237-090-05.

The BSA is dominated by nonnative grassland vegetation with some nonnative riparian, disturbed habitat, and developed land. Three potentially jurisdictional drainage features are in the eastern portion of the BSA. The following soils are present within the project site: Fallbrook sandy loam (9 to 15 percent slopes, eroded), Cieneba coarse sandy loam (15 to 30 percent slopes eroded), Las Posas stony fine sandy loam (9 to 30 percent slopes), Fallbrook sandy loam (15 to 30 percent slopes, eroded), and steep gullied land.

See Attachment A for representative site photographs.

LSA conducted the following tasks to assess impacts to biological resources that may result from the proposed project:

Literature and Database Review

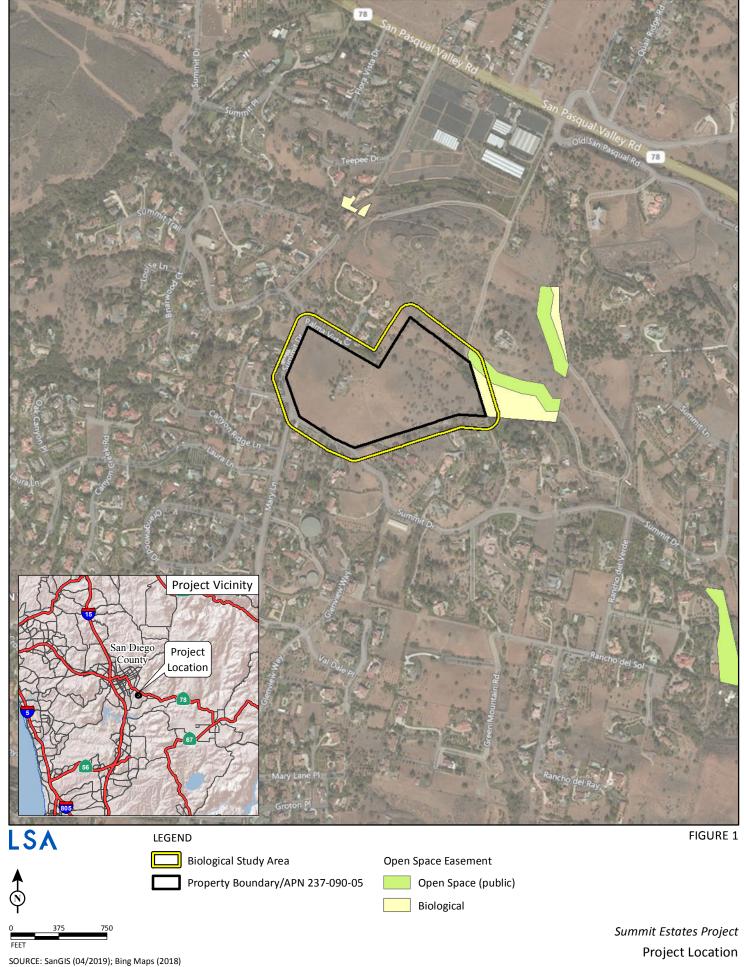
Prior to the general biological resources survey, LSA Senior Biologist Jaime Morales conducted a database records search to identify the previously recorded existence or potential occurrence of special-status biological resources (e.g., plant and animal species, and vegetation communities) within or in the vicinity of the BSA. Special-status species potentially relevant to the project are those that are federally and/or State-listed, proposed for listing, or candidate species for designation as threatened or endangered; species listed as species of concern by the California Department of Fish and Wildlife Special Animals List (CDFW 2018) and the Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2019); plants with a California Rare Plant Ranking (CRPR) by the California Native Plant Society (CNPS); and plants or animals on the San Diego County Multiple Species Conservation Program (MSCP) Covered Species List (MSCP 2008).

LSA reviewed the following databases:

- The California Natural Diversity Data Base information (Version 5.2.14, March 2018), which is administered by the CDFW. This database includes special-status plant and animal species, as well as special-status natural communities that occur in California. LSA reviewed species information within a 2-mile radius of the BSA.
- The CNPS Online Inventory of Rare and Endangered Plants of California (Version 8-03, January 2018, CNPS Inventory).

General Biological Resources Survey

Mr. Morales performed a general biological resources survey on March 12, 2018, from 0945 to 1130 hours, by walking the entire project site and accessible portions of an additional County-required 100-foot buffer within adjoining properties. Inaccessible areas within the buffer were visually



surveyed from the nearest accessible vantage points or by using a field map containing a 2016 aerial photograph base at a scale of 1 inch = 127.5 feet. The survey included the following elements:

- Mapping of vegetation communities;
- A direct search for special-status plant species with potential to occur in the BSA;
- A general inventory of detected plant and wildlife species;
- An evaluation of habitat suitability for special-status resources identified during the literature search;
- Preliminary identification of areas that may be considered wetland and/or nonwetland waters
 of the United States, streambeds, banks, and associated riparian vegetation as defined by the
 CDFW and County Resource Protection Ordinance (RPO) Wetlands; and
- Notes regarding other pertinent features or conditions of the site and adjacent lands.

Mr. Morales conducted a second field visit on June 27, 2018, to refine the vegetation/aquatic resource mapping within and adjacent to the potentially jurisdictional drainage features after obtaining more refined aerial photography captured by a drone.

Mr. Morales conducted a final field visit on October 23, 2018, to dig soil pits within the sections of the ephemeral drainages consisting of nonnative grassland to determine if they possess hydric soils, which would qualify these sections of the drainages as RPO Wetlands.

During the March 2018 survey, Mr. Morales mapped all vegetation communities on an aerial photograph field map, which were digitized using geographic information system (GIS) software. Vegetation community categories use those described in the *Draft Vegetation Communities of San Diego County* (Oberbauer 2008) and plant nomenclature follows *The Jepson Manual: Higher Plants of California* (Hickman 1996). When possible, all plant species observed in the BSA were noted to species level and are listed in Attachment B.

All wildlife observed and sign detected (including tracks, scat, carcasses, burrows, excavations, and vocalizations) were recorded during each field visit and are listed in Attachment C. Additional survey time was spent in those habitats most likely to be used by wildlife or in habitats with the potential to support federally- and/or State-listed or proposed species. Notes were made on the general habitat types, species observed, and the conditions of the site.

Special-status plant and wildlife species and their potential to occur in the BSA are described in Attachment D.

REGIONAL CONTEXT

From a geographic perspective, the BSA is in Township 12 South, Range 2 West, and Section 25, as shown on the United States Geological Survey (USGS) *Escondido, California* 7.5-minute topographic quadrangle map. The BSA is within the South Coast subregion of the Southwestern California region of the California Floristic Province and within Watershed Hydrologic Unit 12: Lake Hodges-San Dieguito River and San Pasqual Valley-Santa Ysabel Creek. Specifically, the BSA is in the San Dieguito

Watershed and is approximately 4 miles south of Dixon Lake, 5 miles southwest of Lake Wohlford, 4.3 miles northeast of Lake Hodges, 5 miles northwest of Lake Poway, and 13.5 miles west of Lake Sutherland. Numerous rivers and streams are in the vicinity of the BSA.

The project is within the Metro-Lakeside-Jamul segment of the South County Multiple Species Conservation Program (MSCP) Subarea Plan. The proposed project must be designed to meet the criteria provided in the *County of San Diego Biological Mitigation Ordinance*. The BSA does not qualify as a Biological Resource Core Area under the MSCP due to its disturbed nature and absence of high quality habitat that supports or contributes to the long-term survival of special-status species. The BSA is not within or adjacent to National Forests or Bureau of Land Management lands, although Hellhole Canyon Preserve and Cleveland National Forest are a few miles northeast of the BSA, but separated by development, including Highway 78/San Pasqual Valley Road and the San Diego Zoo Safari Park. The BSA is adjacent to existing open space, as shown in Figure 1. Figure 2 shows the project boundaries in relation to the surrounding lands, unincorporated lands in the Metro-Lakeside-Jamul segment of the MSCP Subarea Plan, and waterbodies within the San Dieguito Watershed.

HABITATS/VEGETATION COMMUNITIES

Table A presents the total vegetation communities acreages identified within the BSA, while Figure 3 shows the vegetation communities in the BSA on an aerial photograph.

Vegetation Communities	Acreage within the BSA
Nonnative Grassland	23.96
Nonnative Riparian	1.35
Disturbed Habitat	0.46
Developed Land	7.33
Total Acres	33.09

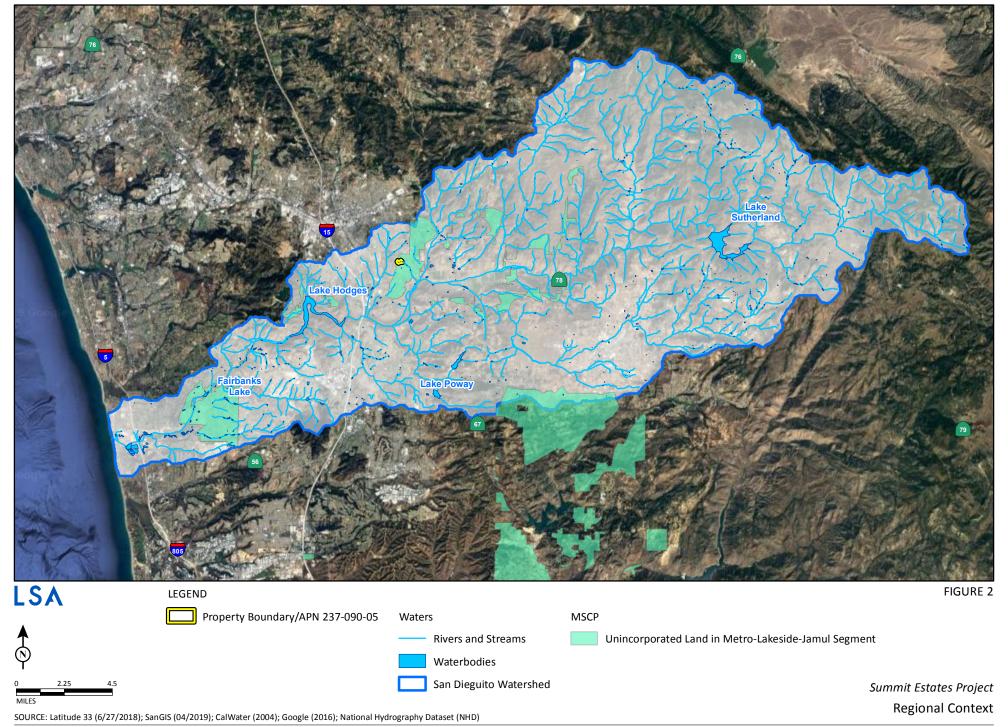
Table A: Vegetation Communities within the BSA

BSA = Biological Study Area

According to the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements*, because nonnative grassland has the potential to support federally- and/ or State-listed species, it is considered and RPO Sensitive Habitat. Additionally, the nonnative riparian vegetation within the BSA contains a predominance of hydrophytic vegetation; therefore, areas mapped as nonnative riparian are considered RPO Wetlands. The remaining vegetation communities within the BSA are of low biological value and are not considered RPO Sensitive Habitats; furthermore, they are not designated as sensitive by State or Federal agencies and have low conservation value. The following sections describe each of the vegetation communities present within the BSA along with its numeric code found in the *Draft Vegetation Communities of San Diego County*.

Nonnative Grassland (42200)

Most of the BSA is vegetated by nonnative grassland composed of the following nonnative, annual plant species: longbeak stork's bill (*Erodium botrys*), ripgut brome (*Bromus diandrus*), mouse barley





(Hordeum murinum), bur-clover (Medicago polymorpha), cheeseweed mallow (Malva parviflora), and black mustard (Brassica nigra).

Nonnative Riparian (65000)

The nonnative riparian vegetation community occurs within the eastern portion of the BSA, along the eastern portions of the existing drainage features. Vegetation within the drainages and along the banks consists of Peruvian peppertree (*Schinus molle*), blue elderberry (*Sambucus nigra* ssp. *caerulea*), tamarisk (*Tamarix* sp.), Goodding's willow (*Salix gooddingii*), Mexican fan palm (*Washingtonia robusta*), and coast live oak (*Quercus agrifolia*).

Disturbed Habitat (11300)

Within the BSA, disturbed habitat refers to the area along the dirt access road that leads to the residence in the middle of the BSA. The dirt road is almost entirely unvegetated.

Developed Land (12000)

Developed land within the BSA refers to a residential development and associated landscaping.

SPECIAL-STATUS SPECIES

Table B lists criteria for evaluating special-status plant and wildlife species potential for occurrence. Attachment D contains a table naming the special-status plant and wildlife species with the potential to occur in the BSA and/or the project vicinity (up to 2 miles). The table in Attachment D includes sensitive species from a comprehensive list contained in the biological resources scoping attachment to the major pre-application scoping letter provided by the County.

Table B: Criteria for Evaluating Special-Status Plant and Wildlife Species Potential for Occurrence

PFO	Criteria
Absent	Species is restricted to habitats or environmental conditions that do not occur in the study area.
Low	Historical records for this species do not exist in the study area, and/or habitats or environmental conditions needed to support the species are of poor quality.
Moderate	Either a historical record exists of the species in the study area and marginal habitat exists in the proposed work areas or the habitat requirements or environmental conditions associated with the species occur in the proposed work areas, but no historical records exist in the study area.
High	Both a historical record exists of the species and the habitat requirements and environmental conditions associated with the species occur in the study area.
Present	Species was detected in or near the study area during project surveys.

PFO = potential for occurrence

Special-Status Plants

Based on the results of the database records search of a 2-mile radius around the BSA and observations made during the general biological resources survey, no special-status plant species have a moderate or higher potential to occur within the BSA.

No special-status plant species were observed during the general biological resources survey.

Special-Status Wildlife

Based on the results of the database records search of a 2-mile radius around the BSA and observations made during the general biological resources survey, the following special-status wildlife species have a moderate potential to occur within the BSA: Cooper's hawk, sharp-shinned hawk, red-shouldered hawk, turkey vulture, common barn owl, and pallid bat.

Cooper's hawk is an MSCP-covered species that has a moderate probability of nesting and foraging within the BSA. Although no CNDDB occurrences of this species were identified within 2 miles of the BSA and this species was not observed during the biological survey, suitable nesting and foraging habitat (trees and grassland, respectively) was present within the BSA and this species was reported in the San Diego Bird Atlas square that includes the BSA (Unitt 2004).

Sharp-shinned hawk is a California Species of Special Concern Watch List species that has moderate probability of nesting and foraging within the BSA. Although no CNDDB occurrences of this species were identified within 2 miles of the BSA and this species was not observed during the biological survey, suitable nesting and foraging habitat (trees and grassland, respectively) was present within the BSA and this species was reported in the San Diego Bird Atlas square that includes the BSA (Unitt 2004).

Red-shouldered hawk is not a special-status species as far as the federal and State governments are concerned; however, because this species was included on a County-provided list of sensitive species to be reviewed for potential to occur within the study area, LSA included it in its special-status species analysis. Although this species was not observed during the biological survey, it has a moderate probability to occur within the BSA because it was reported in the San Diego Bird Atlas square that includes the BSA (Unitt 2004) and suitable nesting and foraging habitats (trees and grassland, respectively) were present within the BSA.

Turkey vulture is not a special-status species as far as the federal and State governments are concerned; however, because this species was included on a County-provided list of sensitive species to be reviewed for potential to occur within the study area, LSA included it in its special-status species analysis. Although this species was not observed during the biological survey, it has a moderate probability to occur within the BSA because it was reported in the San Diego Bird Atlas square that includes the BSA and suitable foraging habitat (grassland) was present within the BSA.

Common barn owl is not a special-status species as far as the federal and State governments are concerned; however, because this species was included on a County-provided list of sensitive species to be reviewed for potential to occur within the study area, LSA included it in its special-status species analysis. Although this species was not observed during the biological survey, it has a moderate probability to occur within the BSA because it was reported in the San Diego Bird Atlas square that includes the BSA and suitable nesting and foraging habitats (trees and grassland, respectively) were present within the BSA.

Pallid bat is a California Species of Special Concern species that has moderate probability of roosting within the BSA. Although this species was not observed during the biological survey, suitable night roosting habitat (woodland) was present within the BSA and there is a CNDDB occurrence 1.75 miles northwest of the BSA.

No special-status animal species were observed during the general biological resources survey.

California ground squirrel (*Otospermophilus beecheyi*) burrows were observed throughout the western half of the site, where the ground was less compacted. No large mammals were observed, although there is the potential for coyote (*Canis latrans*) to occur within the BSA. Migratory birds have the potential to forage and nest in vegetation within the BSA, but substantial use by special-status birds is not expected. Raptors have the potential to forage within the BSA and to nest in trees along the edges of the BSA, but use by special-status raptor species is not expected.

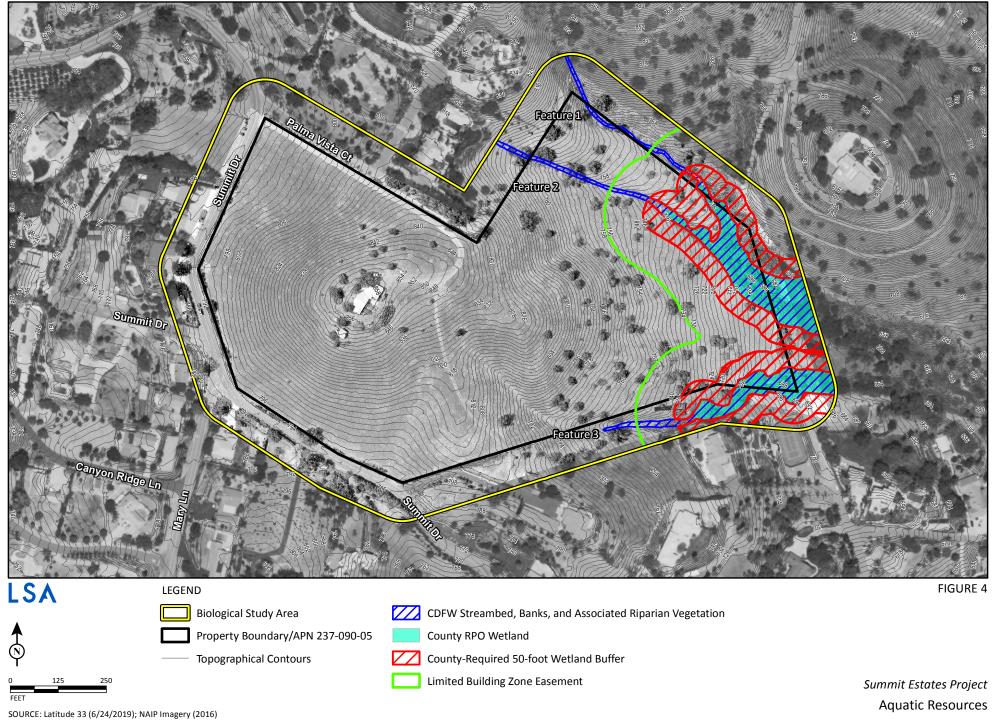
JURISDICTIONAL WETLANDS AND WATERWAYS

The BSA contains three ephemeral drainage features potentially subject to regulation by resource agencies and the County, as shown in the aerial photograph in Figure 4. The following subsections describe each drainage feature, as observed during the general biological resources survey in March 2018.

LSA did not perform a formal jurisdictional delineation of the drainages, because they will be avoided; however, LSA did examine soils within sections of Feature 1 vegetated by upland plant species to determine whether or not these sections contained hydric soils for the purpose of RPO Wetland determination. Additionally, LSA studied aerial images and performed a visual inspection of areas downstream of the BSA.

Feature 1

Feature 1 consists of an ephemeral drainage dominated by nonnative grassland and Peruvian peppertrees at the northern half and by nonnative riparian vegetation at the southern half. Hydrophytic plant species in the southern half include tamarisk, Goodding's willow, and Mexican fan palm. The feature is near the northeastern edge of the BSA and appears to convey off-site irrigation runoff flows from the adjacent property to the north in a southeasterly direction before converging with Feature 2. In the BSA, this feature displays an ordinary high water mark (OHWM) of varying width (0.5 to 3.5 feet) and 1- to 6-foot wide stream banks; however, after the off-site convergence of Features 1 and 2, the OHWM and streambank widths increase. Off site, Features 1, 2, and 3 converge and continue for approximately 700 feet before terminating in a dry basin northeast of the intersection of Summit Drive and Rancho del Verde; thus, this feature does not have a direct connection to a traditional navigable water (TNW) and would not qualify as waters of the United States potentially subject to the jurisdiction of the United States Army Corps of Engineers (Corps) and the Regional Water Quality Control Board (RWQCB) pursuant to the Federal Clean Water Act (CWA). The streambed, banks, and riparian vegetation associated with this feature are potentially subject to CDFW jurisdiction. In addition, the southern half of this feature qualifies as County RPO wetlands because of the presence of hydrophytic vegetation; however, the northern half of this feature does not contain hydrophytic vegetation, hydric soils (as evidenced by digging test pits), or a non-soil substrate, so it does not meet the criteria for RPO wetlands.



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Feature 2

Feature 2 consists of an ephemeral drainage dominated by nonnative grassland and Peruvian peppertrees at the northern half and by native and nonnative riparian vegetation at the southern half. Hydrophytic plant species in the southern half include tamarisk, Goodding's willow, and Mexican fan palm. This drainage feature is near the northeastern edge of the BSA (northeast of Feature 1) and appears to convey off-site runoff flows from properties to the northwest in a southeasterly direction before converging with Feature 1. In the BSA, this feature displays an OHWM of varying width (0.5 to 3 feet) and 1- to 6-foot wide stream banks; however, after the offsite convergence of Features 1 and 2, the OHWM and streambank widths increase. Off site, Features 1, 2, and 3 converge and continue for approximately 700 feet before ending at a dry basin northeast of the intersection of Summit Drive and Rancho del Verde; thus, like Feature 1, this feature does not have a direct connection to a TNW and would not qualify as waters of the United States potentially subject to the jurisdiction of the Corps and the RWQCB pursuant to the CWA. The streambed, banks, and riparian vegetation associated with this feature are potentially subject to CDFW jurisdiction. In addition, the southern half of this feature qualifies as County RPO wetlands because of the presence of hydrophytic vegetation; however, the northern half of this feature does not contain hydrophytic vegetation, hydric soils (as evidenced by digging test pits), or a non-soil substrate, so it does not meet the criteria for RPO wetlands.

Feature 3

Feature 3 consists of an ephemeral drainage dominated by nonnative grassland at the western half and by native and nonnative riparian vegetation at the eastern half. The eastern half includes hydrophytic plant species such as tamarisk, Goodding's willow, and Mexican fan palm. This drainage feature is at southeastern corner of the BSA and appears to convey runoff from the BSA in an easterly direction. In the BSA, this feature displays an OHWM of varying width (0.5 to 3.5 feet) and 1- to 40-foot wide stream banks. Flows along Feature 3 continue eastward outside of the BSA until they converge with the unified drainage associated with Features 1 and 2. Off site, Features 1, 2, and 3 converge and continue for approximately 700 feet before ending at a dry basin northeast of the intersection of Summit Drive and Rancho del Verde; thus, this feature does not have a direct connection to a TNW and would not qualify as waters of the United States potentially subject to the jurisdiction of the Corps and the RWQCB pursuant to the CWA. The streambed and banks associated with this feature are potentially subject to CDFW jurisdiction. The eastern half of this feature qualifies as County RPO wetlands because of the presence of hydrophytic vegetation; however, the western half of this feature does not contain hydrophytic vegetation, hydric soils (as evidenced by digging test pits), or a non-soil substrate, so it does not meet the criteria for RPO wetlands.

Table C displays the total acreage of potential CDFW jurisdiction identified in the BSA. Table D displays the total acreage of potential County RPO wetlands identified in the BSA. As discussed above, due to the absence of a nexus between the drainage features and a TNW, no waters of the United States are present within the BSA.

Table C: Potential CDFW Jurisdiction within the BSA

Feature	Streambed/Banks (acres)
1,2, and 3	1.62
Total	1.62

CDFW = California Department of Fish and Wildlife BSA = Biological Study Area

Table D: Potential County RPO Wetlands within the BSA

Feature	Streambed/Banks (acres)
1, 2, and 3	1.35
Total	1.35

RPO = Resource Protection Ordinance BSA = Biological Study Area

OTHER UNIQUE FEATURES/RESOURCES

Elevations at the site range from approximately 690 to 860 feet above mean sea level. The topography consists of moderate slopes associated with a hill at the center of the site (location of the existing home). The edges of the property boundary/BSA area at the base of the hill. No mapped sensitive soils occur within the BSA. The lower eastern edge of the BSA contains a section of an open space easement; however, the open space easement is isolated from other open spaces and wildlife corridors. Overall, the BSA provides minimal function as a wildlife corridor because it is disturbed and surrounded by residential development, including roads, which restricts wildlife movement through the general area.

SIGNIFICANCE OF PROJECT IMPACTS AND PROPOSED MITIGATION

Construction of this proposed project would result in permanent loss of nonnative grassland, disturbed habitat, ornamental, and developed land. Permanent loss includes long-term impacts associated with permanent features such as housing units and roads.

Direct impacts to nonnative grassland, ornamental, and disturbed habitat will result from permanent clearing of vegetation. It is anticipated that any wildlife within the project site will be displaced. Direct impacts to currently developed land will result from construction of the proposed housing units and infrastructure.

Indirect impacts to adjacent areas may result from noise and dust and vibration generated by construction-related activities, which have the potential to disturb on-site and nearby wildlife and, in the case of dust, vegetation. Additionally, while not anticipated, if construction is performed at night, lighting has the potential to indirectly affect wildlife.

Vegetation Communities

Figure 5 is an aerial photograph depicting the anticipated impacts to vegetation communities within the BSA. Table E outlines the expected mitigation for permanent impacts to each vegetation community type resulting from project-related activities.



Table E: Anticipated Mitigation for Permanent Impacts to Vegetation Communities

Vegetation Community	Existing Area within Project Boundary (acres)*	Impact (acres)	Impact Neutral (acres)	MSCP Tier	Mitigation Ratio	Mitigation Required (acres)	Off-Site Mitigation (acres)
Nonnative Grassland	20.76	17.14	3.62	III	0.5:1**	8.57	8.57
Nonnative Riparian***	0.65	_	0.65	I	1:1 to 2:1****	_	_
Disturbed Habitat	0.46	0.38	0.07	NA	NA	_	_
Developed Land	0.34	0.33	0.01	NA	NA	_	_
Total	22.20	17.85	4.35	_	_	8.57	8.57

- * Existing area within the project boundary does not include the additional 100-buffer required by the County.
- ** 0.5:1 assumes mitigation site meets criteria for biological resource core area.
- *** Mitigation for nonnative riparian habitat will not be required, as the project will be avoiding all nonnative riparian habitat.
- **** 1:1 if mitigation site meets criteria for biological resource core area; 2:1 if mitigation site does not meet criteria for biological

resource core area.

Per the MSCP, permanent impacts to disturbed habitat and developed land do not require mitigation. Summit proposes to mitigate for impacts to nonnative grassland by purchasing 8.57 acres of grasslands at an off-site mitigation bank that meets criteria for biological resources core area. Approximately 4.35 acres of land will be placed in an open space easement to prevent impacts to the potentially-jurisdictional aquatic resources at the eastern edge of the property.

Impacts associated with fire clearing within 100 feet of the existing permitted and occupied structure are "impact neutral"; therefore, mitigation for impacts to nonnative grassland within 100 feet of the existing structure on the property is not required.

Special-Status Plant Species

Based on the results from the database records search, the absence of suitable habitat on site, and because no special-status plant species were observed during the general biological resources survey, special-status plant species are not expected to be affected by project-related activities.

Special-Status Wildlife Species

Special-Status Bird Species and Nesting Birds

Although no special-status bird species were observed during the general biological resources survey, Cooper's hawk, sharp-shinned hawk, red-shouldered hawk, turkey vulture, and common barn owl have a moderate potential to occur within the BSA based on the presence of suitable habitat within the BSA and known occurrences in the San Diego Bird Atlas square that includes the BSA (Unitt 2004).

Temporary and permanent impacts to foraging and nesting habitat for these species and other bird species that are not considered special-status, but are protected by the California Fish and Game

Code and the Migratory Bird Treaty Act, are expected to occur. If project-related activities are conducted during the typical bird breeding season (February 15 through August 15), these activities could affect individual birds, breeding activities, and active nests directly or indirectly (e.g., noise and fugitive dust).

Section 3503.5 of the California Fish and Game Code states that "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 thereto." To comply with this law, LSA recommends that a qualified biologist perform a pre-construction nesting bird survey in suitable nesting habitat prior to the commencement of construction to avoid impacts to nesting birds. The contractor should create and implement a plan to minimize fugitive dust, which will reduce indirect impacts to birds. If active bird nests are identified during the pre-construction nesting bird survey, then a qualified biologist should establish an adequate buffer zone in which construction activities are prohibited until the nest is no longer active. If the species is federally or State-listed as threatened or endangered, then consultation with the USFWS and CDFW will be required for direction on appropriate buffer zone radius. If the species is not federally or State-listed as threatened or endangered, then the size of the buffer zone will be determined by the qualified biologist based on the amount, intensity, and duration of construction, and can be altered based on site conditions.

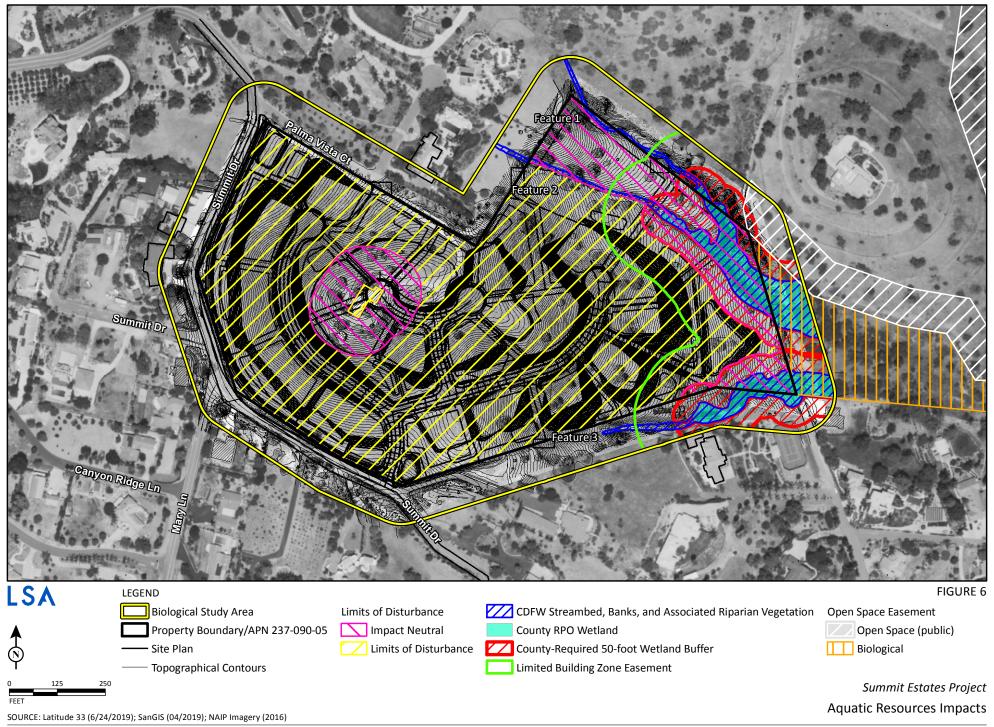
Special-Status Mammal Species

Although no special-status mammal species were observed during the biological resources survey, pallid bat has a moderate potential to occur within the BSA based on the presence of the suitable habitat and known occurrences within a 2-mile radius of the BSA. Clearing/disturbance of trees within the BSA has the potential to affect this species directly through the loss of suitable roosting habitat. Furthermore, this species could be affected indirectly by impacts associated with activities that generate high amounts of vibration, noise, or possible night lighting.

LSA recommends that a qualified biologist perform a pre-construction bat survey in suitable roosting habitat prior to the commencement of construction to avoid impacts to foliage-roosting bats. If special-status bats are identified during the pre-construction survey, then a qualified biologist should establish an adequate buffer zone in which construction activities are prohibited until the bats can be evicted. Removal of special-status bats will require consultation with the CDFW.

Jurisdictional Wetlands and Waterways

The project design avoids impacts to potentially-jurisdictional wetlands and waterways identified within the BSA. Figure 6 is an aerial photograph depicting the proposed limits of disturbance and the aquatic resources identified within the BSA. A 50-foot wide County-required wetland buffer will be established along sections of the drainages vegetated by hydrophytic plant species. This buffer width is appropriate because, although portions of the drainage features contain hydrophytic vegetation, it is almost entirely nonnative. Furthermore, the features are fed by off-site irrigation flows and do not connect to a significant riparian corridor. Additionally the RPO Wetlands provide minimal function as a wildlife corridor and adjacent land use is not expected to result in substantial edge effects. Construction will not affect the wetland buffer. The project will incorporate a 100-foot



wide Limited Building Zone easement extending outward from the boundary of the proposed biological open space easement (currently labeled "County-required 50-foot wetland buffer").

CUMULATIVE IMPACTS

The cumulative study area includes the section of the Metro-Lakeside-Jamul segment of the South County MSCP Subarea Plan that contains the BSA, as well as portions of lands within the City of Escondido's Multiple Habitat Conservation Program (MHCP) Subarea Plan to the west and lands within the City of San Diego's MSCP Subarea Plan to the east. The purpose of these habitat conservation programs is to take a broad-based ecosystem approach to planning for the protection and perpetuation of biological diversity, which is the most appropriate way to assess and address the potential cumulative impacts stemming from multiple projects in the same geographic area. These programs focus on the long-term stability of wildlife and plant communities and include key interests in the process. These programs identify and provide for the regional protection of plants, animals, and their habitats while allowing compatible and appropriate economic activity. Potential impacts to sensitive habitats and associated species have been addressed in a regional context through these programs.

Although, the project will directly and permanently affect nonnative grassland at the project site, these impacts will be addressed through compliance with the County MSCP and mitigated through the purchase of off-site mitigation bank credits. Furthermore, special-status plant and wildlife species are not expected to be cumulatively affected by project-related activities because avoidance and minimization mitigation measures will be implemented. Through mitigation in compliance with the County MSCP, the project will offset cumulative impacts to a less than significant level.

Pending and future projects will also be required to comply with the regional habitat conservation programs, such as the County MSCP, which will address project-specific impacts and appropriate mitigation to offset cumulative impacts to a less than significant level.

REFERENCES

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ATTACHMENTS

- A. Site Photographs
- B. Vascular Plant Species Observed
- C. Wildlife Species Observed
- D. Special-Status Species Summary Table

ATTACHMENT A:

SITE PHOTOGRAPHS



Photograph 1: View of the project site from the northeastern corner of the site, facing southeast.



Photograph 2: View of the eastern half of the project site, facing east. The photograph was taken from the center of the project site.



Photograph 3: View of the project site from the southern edge of the site, facing north.



Photograph 4: View of the house at the top of the hill, facing west.

L S A Attachment A



Photograph 5: *View of the northwestern end of Drainage Feature 1, facing east*



Photograph 6: View of the northwestern end of Drainage Feature 2, facing southeast.



Photograph 7: *View of the western end of Drainage Feature 3, facing southwest.*



Photograph 8: View of the dry basin at the terminus of the drainage features, facing north. This area is outside of the Biological Study Area.

L S A Attachment A



ATTACHMENT B:

VASCULAR PLANT SPECIES OBSERVED

The following vascular plant species were observed within the BSA by LSA during the biological surveys performed in March, June, and October 2018.

Vascular Plant Species Observed

Scientific Name	Common Name		
Adoxaceae	Muskroot family		
Sambucus nigra ssp. caerulea	Blue elderberry		
Anacardiaceae	Sumac family		
Malosma laurina	Laurel sumac		
Schinus molle (nonnative species)	Peruvian peppertree		
Brassicaceae	Mustard family		
Brassica nigra (nonnative species)	Black mustard		
Cactaceae	Cactus family		
Opuntia littoralis	Coastal prickly pear		
Fabaceae	Pea family		
Medicago polymorpha (nonnative species)	Bur-clover		
Fagaceae	Beech family		
Quercus agrifolia	Coast live oak		
Geraniaceae	Geranium family		
Erodium botrys (nonnative species)	Longbeak stork's bill		
Lamiaceae	Mint family		
Marrubium vulgare (nonnative species)	Horehound		
Malvaceae	Mallow family		
Malva parviflora (nonnative species)	Cheeseweed mallow		
Nyctaginaceae	Four-o'clock family		
Bougainvillea sp.	Bougainvillea		
Polygonaceae	Buckwheat family		
Eriogonum fasciculatum	California buckwheat		
Salicaceae	Willow family		
Salix gooddingii	Goodding's willow		
Solanaceae	Nightshade family		
Nicotiana glauca (nonnative species)	Tree tobacco		
Tamaricaceae	Tamarisk family		
Tamarix sp. (nonnative species)	Tamarisk		
Urticaceae	Nettle Family		
Urtica urens (nonnative species)	Dwarf nettle		
Arecaceae	Palm family		
Washingtonia robusta (nonnative species)	Mexican fan palm		



Vascular Plant Species Observed

Scientific Name	Common Name	
Poaceae	Grass family	
Bromus diandrus (nonnative species)	Ripgut brome	
Hordeum murinum (nonnative species)	Mouse barley	

Taxonomy and scientific nomenclature generally conform to Hickman (1993). Common names for each taxa generally conform to the Checklist of the Vascular Plants of San Diego County (Simpson and Rebman 2006).



ATTACHMENT C:

WILDLIFE SPECIES OBSERVED

This is a list of the conspicuous aerial insects, reptiles, birds, and mammals noted in or adjacent to the BSA by LSA during the biological surveys performed in March, June, and October 2018. Presence may be noted if a species is seen or heard, or identified by the presence of tracks, scat, or other signs.

Wildlife Species Observed

Scientific Name	Common Name		
LEPIDOPTERA	BUTTERFLIES		
Pieridae	Sulphers and Whites		
Pontia protodice	Common (checkered) white		
REPTILIA	REPTILES		
Phrynosomatidae	Phrynosomatid Lizards		
Sceloporus occidentalis	Western fence lizard		
AVES	BIRDS		
Ardeidae	Herons, Egrets, and Bitterns		
Egretta thula	Snowy egret		
Accipitridae	Kites, Hawks, and Eagles		
Buteo jamaicensis	Red-tailed hawk		
Columbidae	Pigeons and Doves		
Zenaida macroura	Mourning dove		
Tyrannidae	Tyrant Flycatchers		
Sayornis nigricans	Black phoebe		
Sayornis saya	Say's phoebe		
Trochilidae	Hummingbirds		
Calypte anna	Anna's hummingbird		
Corvidae	Crows and Ravens		
Aphelocoma californica	Western scrub-jay		
Corvus brachyrhynchos	American crow		
Timaliidae	Babblers		
Chamaea fasciata	Wrentit		
Mimidae	Mockingbirds and Thrashers		
Mimus polyglottos	Northern mockingbird		
Emberizidae	Buntings and New World Sparrows		
Melospiza melodia	Song sparrow		
MAMMALIA	MAMMALS		
Leporidae	Rabbits and Hares		
Sylvilagus audubonii	Desert cottontail		

Wildlife Species Observed

Scientific Name	Common Name	
Rodentia	Rodents	
Otospermophilus beecheyi	California ground squirrel	

Taxonomy and nomenclature are based primarily on the following:

- Damselflies and dragonflies: Paulson, D. (2009, Dragonflies and Damselflies of the West, Princeton University Press, Princeton, New Jersey).
- Butterflies: North American Butterfly Association (2001, NABA checklist and English Names of North American Butterflies, Second Edition, North American Butterfly Association, Morristown, New Jersey; see http://www.naba.org/pubs/checklst.html).
- Amphibians and reptiles: Crother, B.I. ed. (2012, Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico. *Herpetological Circular* 39) for species taxonomy and nomenclature; Stebbins, R.C., and S.M. McGinnis (2012, Field Guide to Amphibians and Reptiles of California, Revised Edition, University of California Press, Berkeley) for sequence and higher order taxonomy.
- Birds: American Ornithologists' Union (1998, The A.O.U. Checklist of North American Birds, Seventh Edition, American Ornithologists' Union, Washington D.C.; and supplements; see http://www.aou.org/checklist/north/index.php).
- Mammals: Wilson, D.E., and D.M. Reeder, eds. (2005, Mammal Species of the World, Third Edition, Johns Hopkins University Press, Baltimore, Maryland; see http://www.vertebrates.si.edu/msw/mswcfapp/msw/index.cfm).

ATTACHMENT D:

SPECIAL-STATUS SPECIES SUMMARY TABLE

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Plants	•			
Acanthomintha ilicifolia San Diego thornmint	US: FT CA: SE CRPR: 1B.1 MSCP: C	Annual herb endemic to active vertisol clay soils of mesas and valleys within grasslands, chaparral, coastal scrub, and vernal pool communities; known from southwestern San Diego County and Baja California; 30 to 3,000 feet elevation.	Blooms April through June (annual herb)	Absent. Suitable soils and habitat for this species are not present within the BSA and no known occurrences of this species were identified within 2 miles of the BSA.
Adolphia californica California adolphia	US: – CA: SP CRPR: 2B.1 MSCP: –	Sandy/gravelly to clay soils within grasslands, coastal sage scrub, and chaparral communities; known from western San Diego County and Baja California; 50 to 1,300 feet elevation.	Blooms December through May (perennial deciduous shrub)	Absent. Suitable soils for this species were not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.
Ambrosia pumila San Diego ambrosia	US: FE CA: SP CRPR: 1B.1 MSCP: C	Occurs in open habitats, usually near drainages or vernal pools, usually in sandy loam or on clay (including upland clay slopes) from 70 to 1,600 feet elevation. Known from western Riverside and western San Diego Counties. Also occurs in Mexico.	Generally non- flowering (perennial herb)	Absent. Suitable habitat (vernal pools) for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.
Artemisia palmeri San Diego sagewort	US: – CA: SP CRPR: 4.2 MSCP: –	Primarily found in drainages and riparian areas in sandy soil within coastal scrub, chaparral, riparian forest, riparian woodland; known from San Diego and Riverside Counties and Baja California; 50 to 3,000 feet elevation.	February– September (biennial or perennial deciduous shrub)	Absent. Although marginally-suitable habitat for this species was present within the BSA (nonnative riparian), no known occurrences of this species were identified within 2 miles of the BSA and this perennial species was not observed during the biological survey.



Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Astragalus oocarpus San Diego milk- vetch	US: – CA: SP CRPR: 1B.2 MSCP: –	Primarily found in open areas of chaparral and foothill woodland; known in San Diego and Riverside Counties; 1,000 to 5,000 feet elevation.	Blooms May through August (perennial herb)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.
Azolla microphylla (formerly Azolla mexicana) Mexican mosquito fern	US: – CA: SP CRPR: 4.2 MSCP: –	Aquatic fern found primarily in freshwater wetlands and wetland/riparian vegetation communities. More common in Northern California.	Blooms in August	Absent. Although marginally-suitable habitat for this species was present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.
Baccharis vanessae Encinitas baccharis	US: FT CA: SE CRPR: 1B.1 MSCP: C	Sandstone soils in steep, open, rocky areas in chaparral at 200 to 2,400 feet elevation. Known only from San Diego County, California.	Blooms August through November (deciduous shrub)	Absent. Suitable habitat and soils for this species were not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.
Bloomeria clevelandii San Diego goldenstar	US: – CA: SP CRPR: 1B.1 MSCP: C	Clay soils in chaparral, coastal sage scrub, valley and foothill grassland and vernal pools; 200 to 1,500 (3,600?) feet elevation. Only known from San Diego County and Baja California.	Blooms April– May (perennial bulbiferous herb)	Absent. Suitable habitat and soils for this species were not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Brodiaea filifolia Thread-leaved brodiaea	US: FT CA: SE CRPR: 1B.1 MSCP: C	Usually on clay or associated with vernal pools or alkaline flats; occasionally in vernally moist sites in fine soils (clay loam, silt loam, fine sandy loam, loam, loamy fine sand). Typically associated with needlegrass or alkali grassland or vernal pools. Occurs from 80 to 4,000 feet elevation. Known only from Los Angeles, Orange, Riverside, San Bernardino, San Diego, and San Luis Obispo Counties, California.	Blooms March through June (perennial herb)	Absent. Suitable habitat and soils for this species were not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.
Brodiaea orcuttii Orcutt's brodiaea	US: – CA: SP CRPR: 1B.1 MSCP: C	Clay and some serpentine soils, usually associated with streams or vernal pools, from 100 to 5,600 feet elevation. In California, known only from Riverside and San Diego Counties. Also occurs in Mexico.	May through July (perennial herb)	Absent. Suitable soils for this species were not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.
Calochortus dunnii Dunn's mariposa lily	US: — CA: SP CRPR: 1B.2 MSCP: C	In gabbroic or metavolcanic rocky habitat, within closed-cone coniferous forest, chaparral, valley and foothill grasslands; 600 to 6,000 feet elevation. In San Diego County and Baja California.	Blooms April through June (perennial bulbiferous herb)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.
Caulanthus heterophylles var. heterophyllus Slender pod jewelflower	US: — CA: — CRPR: — MSCP: C	In disturbed areas within coastal sage scrub and chaparral in Southwestern California.	Blooms March through May (annual herb)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.



Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Ceanothus verrucosus Wart-stemmed ceanothus	US: – CA: SP CRPR: 2B.2 MSCP: C	Chaparral in western San Diego County and northern Baja California; sea level to 1,250 feet elevation.	Blooms December through May (perennial shrub)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.
Centromadia parryi ssp. australis Southern tarplant	US: – CA: SP CRPR: 1B.1 MSCP: –	In vernally wet areas such as edges of marshes and vernal pools, at edges of roads and trails, and in other areas of compacted, poorly drained, or alkaline soils where competition from other plants is limited, often due to disturbance, below 1,400 feet elevation. In California, known only from Santa Barbara, Ventura, Los Angeles, Orange and San Diego Counties. Also occurs in Mexico.	Blooms May– November (annual herb)	Absent. Although a known occurrence of this species was identified within 1.5 miles of the BSA, it is from 1916. Suitable habitat for this species was not present within the BSA and this annual species was not observed during the biological survey.
Centromadia pungens ssp. laevis Smooth tarplant	US: – CA: SP CRPR: 1B.1 MSCP: –	Alkaline areas in chenopod scrub, meadows, playas, riparian woodland, valley and foothill grassland below 1,600 feet elevation. Known from Riverside and San Bernardino Counties, extirpated from San Diego County.	Blooms April– November (annual herb)	Absent. Although a known occurrence of this species was identified approximately 1.3 miles from the BSA, the record is from 1998, suitable habitat for this species was not present within the BSA, and this annual species was not observed during the biological survey.
Chorizanthe procumbens Prostrate spineflower	US: – CA: – CRPR: – MSCP: –	In chaparral, valley grassland, pinyon-juniper woodland, and coastal sage scrub.	Blooms April through June (annual herb)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this annual species was not observed during the biological survey.

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Clarkia delicata Delicate clarkia	US: – CA: SP CRPR: 1B.2 MSCP: –	Often gabbroic soils in chaparral and cismontane woodland at 830 to 3,280 feet elevation. Known only from San Diego County, California.	Blooms April– June (annual herb)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this annual species was not observed during the biological survey.
Comarostaphylis diversifolia ssp. diverifolia Summer holly	US: – CA: SP CRPR: 1B.2 MSCP: –	Chaparral or cismontane woodland at 100 to 2,600 feet. In California, known only from Orange, Riverside, and Santa Barbara, and San Diego Counties. Also occurs in Mexico.	Blooms April through June (evergreen shrub)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.
Convolvulus simulans Small-flowered morning-glory	US: – CA: SP CRPR: 4.2 MSCP: –	Wet clay and serpentine seeps and ridges in chaparral, coastal scrub, and valley and foothill grassland from 100 to 2,300 feet elevation. Known from Contra Costa County to Baja California, including the Channel Islands. Rare in Southern California.	Blooms March— July (annual herb)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this annual species was not observed during the biological survey.
Dichondra occidentalis Western dichondra	US: – CA: SP CRPR: 4.2 MSCP: –	Mostly dry sandy banks in scrub or under trees; coastal sage scrub, chaparral, oak woodland. Coastal Orange and San Diego Counties; elevations 200 to 1,700 feet.	Blooms March through May (perennial rhizomatous herb)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.
Dudleya variegata Variegated dudleya	US: – CA: SP CRPR: 1B.2 MSCP: C	In rocky or clay soils within chaparral, coastal scrub, cismontane woodland, valley and foothill grassland, and margins of vernal pools; known from western San Diego County and Baja California; 10 to 1,900 feet elevation.	Blooms April– June (perennial herb)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Dudleya viscida Sticky dudleya	US: — CA: SP CRPR: 1B.2 MSCP: C	Rocky areas in coastal bluff scrub, chaparral, coastal sage scrub, and cismontane woodland from 30 to 1,800 feet elevation. Known only from Orange and San Diego Counties, California.	May through June (perennial herb)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.
Ericameria palmeri var. palmeri Palmer's goldenbush	US: – CA: SP CRPR: 1B.1 MSCP: C	On granitic soils and moist, steep hillsides within coastal scrub and chaparral; known from western San Diego County and Baja California; 100 to 2,000 feet elevation.	Blooms July through November (perennial evergreen shrub)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.
Eryngium aristulatum var. parishii San Diego button-celery	US: FE CA: SE CRPR: 1B.1 MSCP: C	Vernal pools at 50 to 2,000 feet elevation. In California, known only from Riverside and San Diego Counties. In Riverside County, this species is known only from the Santa Rosa Plateau.	Blooms April through June (annual/perennial herb)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.
Ferocactus viridescens San Diego barrel cactus	US: – CA: SP CRPR: 2B.1 MSCP: C	Often on undisturbed, exposed, level or southfacing slopes within chaparral, coastal scrub, and grasslands; known from southwestern San Diego County and Baja California; 10 to 1,500 feet elevation.	Blooms May— June (perennial stem succulent)	Absent. Suitable habitat (undisturbed southfacing slopes) for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.



Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Githopsis diffusa ssp. filicaulis Mission Canyon bluecup	US: – CA: SP CRPR: 3.1 MSCP: –	Mesic disturbed places in chaparral at 1,480 to 2,300 feet elevation. Known only from Riverside and San Diego Counties, California.	April through June (annual herb)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.
Harpagonella palmeri Palmer's grapplinghook	US: – CA: SP CRPR: 4.2 MSCP: –	Clay soils in openings in coastal sage scrub, juniper woodland, and grassland below 2,700 feet elevation. In California, known only from Orange, Riverside, and San Diego Counties and the Channel Islands. Also occurs in Arizona and Mexico.	March through May (annual herb)	Absent. Suitable soils for this species were not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.
Holocarpha virgata ssp. elongata Graceful tarplant	US: – CA: SP CRPR: 4.2 MSCP: –	Found in chaparral, coastal scrub, valley and foothill grassland, and cismontane woodland; 200 to 3,600 feet elevation. Known from Orange, Riverside, and San Diego Counties.	Blooms May through November (annual herb)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this annual species was not observed during the biological survey.
Hordeum intercedens Vernal barley	US: – CA: SP CRPR: 3.2 MSCP: –	Vernal pools and saline flats and depressions below 3,300 feet elevation in valley grassland, freshwater wetlands, and wetland/riparian vegetation communities. Known from many California Counties. Also occurs in Mexico.	March through June (annual herb)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this annual species was not observed during the biological survey.
Iva hayesiana San Diego marsh-elder	US: – CA: SP CRPR: 2B.2 MSCP: –	River washes, marshes, swamps, and playas at 30 to 1,650 feet elevation. Known from western San Diego County and Baja California.	Blooms April through October (perennial shrub or subshrub)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Juncus acutus ssp. leopodii Southwestern spiny rush	US: – CA: SP CRPR: 4.2 MSCP: –	Moist, saline places in salt marshes, alkaline seeps, and coastal dunes (mesic sites); 10 to 2,950 feet elevation. Known from Imperial, Los Angeles, Orange, Santa Barbara, San Diego, San Luis Obispo, and Ventura Counties, Arizona, and Baja California.	Blooms May— June (perennial rhizomatous herb)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.
Lepidium virginicum var. robinsonii Robinson's pepper-grass	US: – CA: SP CRPR: 4.3 MSCP: –	Dry soils in coastal sage scrub and chaparral and occasionally in wetlands below 2,900 feet elevation. In California, known only from Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino and San Diego Counties, and Santa Cruz Island. Also occurs in Mexico.	Blooms January through July (annual herb)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this annual species was not observed during the biological survey.
Ophioglossum californicum California adder's tongue fern	US: – CA: SP CRPR: 4.2 MSCP: –	In vernal pools within chaparral, valley grassland, freshwater wetlands, and wetland riparian vegetation communities.	Blooms January through June (rhizomatous fern)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this annual species was not observed during the biological survey.
Pentachaeta aurea ssp. aurea Golden-rayed pentachaeta	US: – CA: SP CRPR: 4.2 MSCP: –	In chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland, and valley and foothill grassland habitats. Known from Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties, in addition to Baja California. 260 to 6,000 feet elevation.	Blooms March through July (annual herb)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this annual species was not observed during the biological survey.
Piperia leptopetala Narrow-petaled rein orchid	US: – CA: SP CRPR: 4.3 MSCP: –	In chaparral, foothill woodland, yellow pine forest, red fir forest, northern coastal scrub, and closed-cone pine forest throughout California.	Blooms May through July (perennial herb)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this annual species was not observed during the biological survey.

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Quercus dumosa Nuttall's scrub oak	US: – CA: SP CRPR: 1B.1 MSCP: –	On sandy and clay loam soils near the coast within closed-cone coniferous forest, chaparral, and coastal scrub from 50 to 1,300 feet elevation. Known from western Orange, Santa Barbara, and San Diego Counties. Also known from Baja California.	Blooms February through August (perennial evergreen shrub)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.
Quercus engelmannii Engelmann oak	US: – CA: SP CRPR: 4.2 MSCP: –	Chaparral, woodland, and grassland, from 400 to 4,300 feet elevation. Known from Los Angeles, Orange, Riverside, and San Diego Counties and from northern Baja California.	Year-round (perennial deciduous tree)	Absent. Although marginally-suitable habitat (grassland) for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this conspicuous perennial species was not observed during the biological survey.
Selaginella cinerascens Ashy spike-moss	US: – CA: SP CRPR: 4.1 MSCP: –	In chaparral and coastal scrub often on clay soil both in open areas and in the shade of larger plants from 65 to 2,100 feet in elevation. Known in Orange, Riverside, and San Diego Counties in addition to Baja California.	Perennial (perennial rhizomatous herb)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.
Stipa diegoensis San Diego needlegrass	US: – CA: SP CRPR: 4.2 MSCP: –	In chaparral and coastal sage scrub ecosystems below 350 feet in elevation, especially near streams. Known from San Diego and Ventura Counties and the Channel Islands, and Baja California.	Perennial (bunch grass)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Viguiera laciniata San Diego County viguiera	US: – CA: SP CRPR: 4.3 MSCP: –	Slopes and ridges in chaparral and coastal scrub. Known from Orange and San Diego Counties, and Mexico; 295 to 2,460 feet elevation.	February–August (perennial shrub)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.
Xanthisma junceum Rush-like bristleweed	US: – CA: SP CRPR: 4.3 MSCP: –	In chaparral and coastal scrub from 780 to 3,280 feet in elevation. Known in San Diego County as well as Arizona, Baja California, and Sonora.	Blooms May through January (perennial herb)	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.
Invertebrates				
Danaus plexippus (wintering sites) Monarch butterfly	US: – CA: SA MSCP: –	Winter roosts are located in wind-protected tree groves (Eucalyptus, Monterey Pine, Cypress) with nectar and water sources nearby.	September through March	Absent. Suitable habitat for this species was not present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.
Euphydryas editha quino Quino checkerspot butterfly	US: FE CA: SA MSCP: –	Meadows or openings within coastal sage scrub or chaparral below about 5,000 feet where food plants (Plantago erecta and/or Orthocarpus purpurascens) are present. Historically known from Santa Monica Mountains to northwest Baja California; currently known only from southwestern Riverside County, southern San Diego County, and northern Baja California.	January through late April	Absent. Suitable habitat for this species was not present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Euphyes vestris harbisoni Dun skipper	US: – CA: SA MSCP: –	Chaparral, oak woodland, and riparian areas that have narrow canyons or drainages. Host plant (<i>Carex spissa</i>) requires moving water or dry ravines. Known occurrences in the foothills of northern and southern San Diego County, western Riverside County, and southern Orange County.	June	Absent. Suitable habitat for this species was not present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.
Lycaena hermes Hermes copper butterfly	US: CS CA: SA MSCP: –	Host plant (Rhamnus crocea) occurs in coastal sage scrub, chaparral, mixed evergreen forest, southern oak woodland, foothill woodland, and yellow pine forest. Found only in San Diego County and Baja California.	May through June	Absent. Suitable habitat for this species was not present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, and this perennial species was not observed during the biological survey.
Amphibians	1	 	L	<u> </u>
Anaxyrus californicus Arroyo toad	US: FE CA: SSC MSCP: C	Washes and arroyos with open water; sand or gravel beds; for breeding, low flowing water and eddies/pools with sparse overstory vegetation. Coastal and a few desert streams from Santa Barbara County to Baja California.	March through July	Absent. Suitable habitat for this species was not present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.
Spea hammondii Western spadefoot	US: – CA: SSC MSCP: –	Grasslands and occasionally hardwood woodlands; largely terrestrial but requires rain pools or other ponded water persisting at least three weeks for breeding; burrows in loose soils during dry season. Occurs in the Central Valley and adjacent foothills, the non-desert areas of southern California, and Baja California.	October through April (following onset of winter rains)	Low. Although marginally-suitable habitat (grassland; however, water likely does not persist for three weeks) for this species was present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.



Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Reptiles				
Anniella pulchra California legless lizard	US: – CA: SSC MSCP: –	Inhabits sandy or loose loamy soils with high moisture content under sparse vegetation from central California to northern Baja California.	Nearly year round, at least in southern areas	Low. Although marginally-suitable habitat (loamy soils in grassland) for this species was present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.
Anniella stebbinsi Southern California legless lizard	US: – CA: SSC MSCP: –	Inhabits coastal sand dunes, sandy washes, and alluvial fans.	Nearly year round	Low. Although a CNDDB occurrence of this species was identified 1.75 mile northwest of the BSA, the record is from 1952. Suitable habitat for this species was not present within the BSA, and this species was not observed during the biological survey.
Aspidoscelis hyperythra Orange-throated whiptail	US: – CA: WL MSCP: C	Prefers washes and other sandy areas with patches of brush and rocks, in chaparral, coastal sage scrub, juniper woodland, and oak woodland from sea level to 3,000 feet elevation. Perennial plants required. Occurs in Riverside, Orange, San Diego Counties west of the crest of the Peninsular Ranges, in extreme southern San Bernardino County near Colton, and in Baja California.	March through July, with reduced activity August through October	Low. Although a CNDDB occurrence of this species was identified within 0.5 mile south of the BSA (2000), suitable habitat for this species was not present within the BSA and this species was not observed during the biological survey.
Aspidoscelis tigris stejnegeri Coastal western whiptail	US: – CA: SSC MSCP: –	Wide variety of habitats including coastal sage scrub, sparse grassland, and riparian woodland; coastal and inland valleys and foothills; Ventura County to Baja California.	April through August	Low. Although marginally-suitable habitat for this species was present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Charina trivirgata ssp. roseofusca Rosy boa	US: – CA: – MSCP: –	In rocky areas in chaparral or scrub habitats or oak woodland; also in rocky riparian areas. Found in Los Angeles County, southwestern San Bernardino County, south through western Riverside County, and San Diego County into Baja California.	Nocturnal. Rarely active during day. Active between April and September	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.
Coleonyx variegatus abbotti San Diego banded gecko	US: – CA: SSC MSCP: –	Often associated with rocks. Coastal sage scrub and chaparral, most often on granite or rocky outcrops in these habitats. Interior Ventura County south.	Nocturnal April through October	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.
Northern red diamond rattlesnake	US: – CA: SSC MSCP: –	Desert scrub, thornscrub, open chaparral and woodland; occasional in grassland and cultivated areas. Prefers rocky areas and dense vegetation. Morongo Valley in San Bernardino and Riverside Counties to the west and south into Mexico.	Mid-spring through mid-fall	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.
Diadophis punctatus similis San Diego ringneck snake	US: – CA: SA MSCP: –	Under cover of rocks, wood, bark, boards, and other surface debris in a variety of habitats. Prefers moist habitats of coastal San Diego County, northern Baja California and southwestern San Bernardino County.	Diurnal. Crepuscular and nocturnal during warmer periods.	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.
Emys marmorata ssp. pallida Southwestern pond turtle	US: – CA: SSC MSCP: C	Inhabits permanent or nearly permanent water. Absent from desert regions, except in the Mojave Desert along the Mojave River and its tributaries. Requires basking sites such as partially submerged logs, rocks, or open mud banks.	Year-round with reduced activity November through March	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Phrynosoma blainvillii Coast horned lizard	US: – CA: SSC MSCP: C	Occurs in annual grassland, coastal sage scrub, chaparral, and woodland communities. Requires open areas for sunning, bushes for cover, patches of loose soil for burial, and an abundant supply of ants or other insects. Occurs in Siskiyou County, in the Central Valley and adjacent foothills below 4,000 feet elevation, in coastal areas of central California, and in non-desert areas of southern California below 6,000 feet elevation, and into Baja California.	April through July, with reduced activity August through October	Low. Although a known occurrence record from 1961 for this species was identified approximately 2 miles east of the BSA, only marginally-suitable habitat for this species was present within the BSA, and this species was not observed during the biological survey.
Plestiodon (Eumeces) skiltonianus interparietalis Coronado skink	US: – CA: WL MSCP: –	Occurs in variety of plant communities including coastal sage scrub, mesic chaparral, oak woodlands, pinyon-juniper, and riparian woodlands to pine forests. Found west of the deserts from Riverside County to Baja California.	Diurnal. Activity is bimodal; from early spring through early fall.	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.
Salvadora hexalepis virgultea Coast patch- nosed snake	US: – CA: SSC MSCP: –	Coastal chaparral, washes, sandy flats and rocky areas. Widely distributed throughout lowlands, up to 2,130 meters (7,000 feet) elevation, of Southern California from coast to the eastern border.	Active diurnally throughout most of the year	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.
Thamnophis hammondii Two-striped garter snake	US: – CA: SSC MSCP: –	Highly aquatic. Only in or near permanent sources of water. Streams with rocky beds supporting willows or other riparian vegetation. From Monterey County to northwest Baja California.	Diurnal Year- round	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.



Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Thamnophis sirtalis novum South coast garter snake	US: – CA: SSC MSCP: –	Highly aquatic. Preferably rocky streams with protected pools, marshes, vernal pools, and other shallow water bodies lacking large aquatic predators.	Year-round	Absent. Suitable habitat for this species was not present within the BSA, no known occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.
Birds				
Accipiter cooperii	US: – CA: WL (nesting)	Forages in a wide range of habitats, but primarily in	Year-round	Moderate. Although no CNDDB occurrences of
Cooper's hawk	MSCP: C	forests and woodlands. These include natural areas as well as human-created habitats such as plantations and ornamental trees in urban landscapes. Usually nests in tall trees (20 to 60 feet) in extensive forested areas (generally woodlots of 4 to 8 hectares with canopy closure of greater than 60 percent). Occasionally nests in isolated trees in more open areas.		this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey, suitable nesting and foraging habitat was present within the BSA and this species was reported in the San Diego Bird Atlas square that includes the BSA.
Accipiter striatus	US: – CA: WL (nesting)	Nests in woodland, coniferous/deciduous forest.	Fall and winter; scarce in summer	Moderate. Although no CNDDB occurrences of
Sharp-shinned hawk	MSCP: –	Winter visitor and migrant to coastal Southern California. Forages over a variety of habitats.		this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey, suitable nesting habitat was present within the BSA and this species was reported in the San Diego Bird Atlas square that includes the BSA.

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Agelaius tricolor Tricolored blackbird	US: – CA: SSC (nesting) MSCP: C	Open country in western Oregon, California, and northwestern Baja California. Breeds near fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, tall herbs and forages in grassland and cropland habitats. Seeks cover for roosting in emergent wetland vegetation, especially cattails and tules, and also in trees and shrubs.	Year-round	Absent. Although a CNDDB occurrence of this species was identified within a within 2 miles of the BSA, it has an accuracy of 5 miles, was recorded in 1906, and the species is believed to be extirpated from the area. Furthermore, suitable habitat for this species was not present within the BSA, this species was not reported in the San Diego Bird Atlas square that includes the BSA, and it was not observed during the biological survey.
Aimophila ruficeps canescens Southern California rufous-crowned sparrow	US: – CA: WL MSCP: C	Steep, rocky, coastal sage scrub, and open chaparral habitats, particularly scrubby areas mixed with grasslands. From Santa Barbara County to northwestern Baja California.	Year-round, diurnal activity	Absent. Suitable habitat for this species was not present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.
Ammodramus savannarum Grasshopper sparrow	US: – CA: SSC (nesting) MSCP: –	Grasslands, agricultural fields, prairie, old fields and open savanna. Uncommon and local summer resident on grassy slopes and mesas west of the deserts. Only rarely in migration and in winter. Coastal Southern California.	Coastal: Year- round; only casually in migration elsewhere	Absent. Although suitable habitat (grassland) for this species was present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, no San Diego Bird Atlas reports were identified in the square that includes the BSA, and this species was not observed during the biological survey.



Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Ardea herodias Great blue heron	US: — CA: SA (nesting colony) MSCP:	Usually nests in trees, but also on large bushes, poles, reedbeds, and even on the ground. Frequents a wide range of wetland habitats at other times of year.	February to July at nesting sites; year round elsewhere	Low. Although suitable nesting habitat (trees) for this species was present within the BSA, and it was reported in the San Diego Bird Atlas square that includes the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.
Artemisiospiza belli belli Bell's sage sparrow	US: – CA: SA MSCP: C	Occupies chaparral and coastal sage scrub from west central California to northwestern Baja California.	Year-round, diurnal activity	Absent. Suitable habitat for this species was not present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.
Asio otus Long-eared owl	US: – CA: SSC (nesting) MSCP: –	Scarce and local in forests and woodlands throughout much of the Northern Hemisphere. Rare resident in coastal southern California. Nests and roosts in dense willow-riparian woodland and oak woodland, but forages over wider areas. Breeds from valley foothill hardwood up to ponderosa pine habitat.	Nocturnal Year- round	Absent. Although marginally-suitable habitat for this species was present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, no San Diego Bird Atlas reports were identified in the square that includes the BSA, and this species was not observed during the biological survey.

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Athene cunicularia	US: – CA: SSC (burrow sites)	Open country in much of North and South America. Usually occupies ground	Year-round	Low. Although suitable habitat for this species was present within the
Burrowing owl	MSCP: C	squirrel burrows in open, dry grasslands, agricultural and range lands, railroad rights-of-way, and margins of highways, golf courses, and airports. Often utilizes manmade structures, such as earthen berms, cement culverts, cement, asphalt, rock, or wood debris piles. They avoid thick, tall vegetation, brush, and trees, but may occur in areas where brush or tree cover is less than 30 percent.		BSA, neither this species nor suitable burrows or sign were observed during the biological survey. Furthermore, the nearest CNDDB occurrence is 1.75 miles northwest of the BSA and is from 1924,and no San Diego Bird Atlas reports were identified in the square that includes the BSA.
Branta canadensis	US: – CA: – MSCP: C	Breeds in Canada and northern United States. Only a migrant in California.	October through April	Absent. Suitable habitat for this species was not present within the BSA,
Canada goose		Spends the winter in San Diego County, visiting habitats that combine fresh or brackish water with low grass or succulent leaves on which the birds graze. Most of the geese congregate in a few large flocks that frequent the same areas year after year.		no CNDDB occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.
Buteo lineatus Red-shouldered hawk	US: – CA: – MSCP: –	Typically found in riparian forests or in oak woodland, and sometimes in eucalyptus groves.	Year-round	Moderate. No CNDDB occurrences of this species were identified within 2 miles of the BSA; however, this species was reported in the San Diego Bird Atlas square that includes the BSA. Although this species was not observed during the biological survey, suitable nesting habitat (riparian trees) for this
				square that i BSA. Althoug species was i observed dui biological sui suitable nest

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Buteo regalis Ferruginous hawk	US: – CA: WL (wintering) MSCP: C	Forages in open fields, grasslands and agricultural areas, sagebrush flats, desert scrub, fringes of pinyon-juniper habitats, and other open country in western North America. Requires large, open tracts of grasslands, sparse shrub, or desert habitats.	Mid-September through mid-April	Low. Although suitable foraging habitat (grassland) for this species was present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, no San Diego Bird Atlas reports were identified in the square that includes the BSA, and this species was not observed during the biological survey.
Buteo swainsoni Swainson's hawk	US: – CA: ST (nesting) MSCP: C	Open desert, grassland, or cropland containing scattered, large trees or small groves. Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley. Forages in adjacent grasslands or suitable grain or alfalfa fields, or livestock pastures. Breeds and nests in western North America; winters in South America. Uncommon breeding resident and migrant in the Central Valley, Klamath Basin, Northeastern Plateau, Lassen County, and Mojave Desert. Very limited breeding reported from Lanfair Valley, Owens Valley, Fish Lake Valley, and Antelope Valley. In Southern California, now mostly limited to spring and fall transient. Formerly abundant in California with wider breeding range.	Spring and fall (in migration)	Absent. Although marginally-suitable foraging habitat (grassland) was present within the BSA and a CNDDB occurrence of this species was identified 2 miles southwest of the BSA, the record is from 1909 and this species is believed to be extirpated from the area. Furthermore, no San Diego Bird Atlas reports were identified in the square that includes the BSA and this species was not observed during the biological survey.

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Campylorhynchus brunneicapillus sandiegensis Coastal cactus wren	US: – CA: SSC MSCP: C	Inhabits coastal sage scrub, nesting almost exclusively in thickets of cholla (<i>Opuntia prolifera</i>) and prickly pear (<i>Opuntia littoralis</i> and <i>Opuntia oricola</i>), typically below 150 meters (500 feet) elevation. Found in coastal areas of Orange County and San Diego Counties, and extreme northwestern Baja California, Mexico.	Year-round	Absent. Although numerous CNDDB occurrences of this species were identified within 2 miles of the BSA, the closest one 0.5 mile northwest of the BSA (1990), suitable habitat for this species was not present within the BSA, and this species was not observed during the biological survey. A large stand of coastal prickly pear occurs east of and adjacent to the BSA. This area will not be directly affected by project-related activities.
Cathartes aura Turkey vulture	US: – CA: – MSCP: –	Forage farmland, forest, and rangeland. Nest in rock crevices, caves, ledges, thickets, mammal burrows and hollow logs, fallen trees, abandoned hawk or heron nests, and abandoned buildings.	Year-round	Moderate. No CNDDB occurrences of this species were identified within 2 miles of the BSA; however, this species was reported in the San Diego Bird Atlas square that includes the BSA. Although this species was not observed during the biological survey, suitable foraging habitat (grassland) for this species was present within the BSA.
Circus cyaneus hudsonius Northern harrier	US: – CA: SSC (nesting) MSCP: C	Marshy habitats, grassland and other open country; uncommon in open desert and brushlands. Nests on the ground in open (treeless) wetland and upland areas, including cultivated cropland and dry grassland. Nests usually constructed in tall, dense clumps of vegetation. Found in the Temperate Zone worldwide.	Year-round	Low. Although suitable habitat (grassland) for this species was present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey. Furthermore, the San Diego Bird Atlas reports only minimal wintering activity in the square that includes the BSA.

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Coccyzus americanus occidentalis Western yellow- billed cuckoo	US: FT CA: SE MSCP: –	Breeds and nests in extensive stands of dense cottonwood/willow riparian forest along broad, lower flood bottoms of larger river systems at scattered locales in western North America; winters in South America.	May through September	Absent. Although a CNDDB occurrence of this species was identified 1.75 miles northwest of the BSA, the record is from 1932 and this species is believed to be extirpated from the area. Furthermore, suitable habitat was not present within the BSA, this species was not observed during the biological survey, and no San Diego Bird Atlas reports were identified in the square that includes the BSA.
Dendroica petechial brewsteri Yellow warbler	US: – CA: – MSCP: –	Breed in shrubby thickets and woods, particularly along watercourses and in wetlands. Common trees include willows, alders, and cottonwoods across North America and up to about 9,000 feet in the West. In winter they mainly occur in mangrove forests of Central and South America.	Winter in California	Absent. Suitable habitat for this species was not present within the BSA and this species was not observed during the biological survey.
Elanus leucurus White-tailed kite	US: – CA: FP (nesting) MSCP: –	Found in grasslands, open woodlands, savannas, marshes, and cultivated fields.	Year-round	Low. Although suitable habitat (grassland) for this species was present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey. Furthermore, the San Diego Bird Atlas reports a low incidence of occurrence for this species in the square that includes the BSA.

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Eremophila alpestris actia California horned lark	US: – CA: WL MSCP: –	Sandy beaches, agricultural fields, grasslands, and open areas.		Low. Although suitable habitat (grassland) for this species was present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, no San Diego Bird Atlas reports were identified in the square that includes the BSA, and this species was not observed during the biological survey.
Empidonax traillii extimus Southwestern willow flycatcher	US: FE CA: SE MSCP: C	Rare and local breeder in extensive riparian areas of dense willows or (rarely) tamarisk, usually with standing water, in the southwestern U.S. and northwestern Mexico. Winters in Central and South America. Below 6,000 feet elevation.	May through September	Absent. Suitable habitat for this species was not present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, no San Diego Bird Atlas reports were identified in the square that includes the BSA, and this species was not observed during the biological survey.
Falco mexicanus Prairie falcon	US: – CA: WL (nesting) MSCP: –	Open country in much of North America. Nests in cliffs or rocky outcrops; forages in open arid valleys and agricultural fields. Rare in southwestern California.	Year-round diurnal	Absent. Suitable habitat for this species was not present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, no San Diego Bird Atlas reports were identified in the square that includes the BSA, and this species was not observed during the biological survey.
Icteria virens Yellow-breasted chat	US: – CA: SSC (nesting) MSCP: –	Riparian thickets of willow, brushy tangles near watercourses. Nests in riparian woodland throughout much of western North America. Winters in Central America.	Summer in California	Absent. Suitable habitat for this species was not present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Lanius Iudovicianus Loggerhead shrike	US: – CA: SSC (nesting) MSCP: –	Prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches. Inhabits open country with short vegetation, pastures, old orchards, cemeteries, golf courses, riparian areas, and open woodlands. Highest density occurs in opencanopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyonjuniper, juniper, desert riparian, and Joshua tree habitats. Occurs only rarely in heavily urbanized areas, but often found in open cropland. Found in open country in much of North America.	Year-round	Low. Although marginally-suitable habitat (grassland) for this species was present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, no San Diego Bird Atlas reports were identified in the square that includes the BSA, and this species was not observed during the biological survey.
Larus californicus California gull	US: – CA: WL (nesting colony) MSCP: –	Breed on sparsely vegetated islands and levees in inland lakes and rivers. Forage in any open area where they can find food including garbage dumps, scrublands, pastures, orchards, meadows, and farms. In the winter they forage along the Pacific Coast and use mostly marine areas including mudflats, estuaries, deltas, and beaches.	Year-round	Absent. Suitable habitat for this species was not present within the BSA, no San Diego Bird Atlas reports were identified in the square that includes the BSA, and this species was not observed during the biological survey.
Plegadis chihi White-faced ibis	US: – CA: WL (nesting colony) MSCP: C	Winters locally in wet meadows, shallow freshwater marshes, ponds, lakes, rivers, flooded fields, and estuaries. May frequent brackish areas or feed in flooded fields. Known rookery in western Riverside County. In the Coachella Valley and Imperial Valley, this species primarily occurs in irrigated agricultural lands, particularly alfalfa and wheat.	Year-round diurnal activity	Absent. Although a CNDDB occurrence was identified 1.75 mile northwest of the BSA, it is from 1901. Suitable habitat for this species was not present within the BSA, no San Diego Bird Atlas reports were identified in the square that includes the BSA, and this species was not observed during the biological survey.



Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Polioptila californica californica Coastal California gnatcatcher	US: FT CA: SSC MSCP: C	Inhabits coastal sage scrub in low-lying foothills and valleys in cismontane southwestern California and Baja California.	Year-round	Absent. Although numerous CNDDB occurrences were identified within 1 mile of the BSA, suitable habitat for this species was not present within the BSA and this species was not observed during the biological survey.
Sialia mexicana Western bluebird	US: – CA: – MSCP: C	Montane coniferous and oak woodlands in San Diego County's foothills and mountains.	Year-round	Absent. Although the San Diego Bird Atlas reports this species occurring in the square that includes the BSA, this species was not observed during the biological survey and suitable habitat for this species was not present within the BSA,
Tyto alba Common barn owl	US: – CA: – MSCP: –	Open habitats including grassland, chaparral, riparian, and other wetlands. Usually nests on ledges, crevices, or other sheltered areas of cliffs or man-made structures. Also nests in cavities in tress or snags.	Year-round	Moderate. Although this species was not observed during the biological survey, suitable nesting and foraging habitat was present within the BSA and this species was reported in the San Diego Bird Atlas square that includes the BSA.
Vireo bellii pusillus Least Bell's vireo	US: FE CA: SE MSCP: C	Riparian forests and willow thickets. The most critical structural component of least Bell's vireo habitat in California is a dense shrub layer 2 to 10 feet (0.6–3.0 meter) above ground. Nests from central California to northern Baja California. Winters in southern Baja California.	April through September	Absent. Although a CNDDB occurrence was identified 1.75 miles southwest of the BSA (1989), the nonnative riparian habitat within the BSA is not suitable breeding habitat for this migrant species. Furthermore, this species was not observed during the biological survey.

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Mammals				
Antrozous pallidus Pallid bat	US: – CA: SSC MSCP: –	Day roosts in caves, crevices, rocky outcrops, tree hollows or crevices, mines and occasionally buildings, culverts, and bridges. Night roosts may be more open sites, such as porches and open buildings. Grasslands, shrublands, woodlands, and forest in western North America.	Year-round; nocturnal	Moderate. Although this species was not observed during the biological survey, suitable night roosting habitat (trees) for this species was present within the BSA and there is a CNDDB occurrence 1.75 mile northwest of the BSA.
Bassariscus astutus Ringtail	US: – CA: – MSCP: –	Woody and rocky areas of the southwestern United States and most of Mexico.	Year-round; nocturnal	Absent. Suitable habitat for this species was not present within the BSA and this species was not observed during the biological survey.
Chaetodipus californicus femoralis Dulzura pocket mouse	US: – CA: SSC MSCP: –	Found in a variety of habitats including coastal sage scrub, chaparral and grassland in northern Baja California, San Diego and extreme southwestern and western Riverside Counties. Limit of range to northwest (at interface with <i>C. c. dispar</i>) unclear.	Year-round	Absent. Although CNDDB occurrences of this species were identified within 2 mile of the BSA, they are from 1953 and 1961 the general area has been heavily disturbed and developed since then. The BSA is highly disturbed and does not contain suitable habitat for this species. Furthermore, this species was not observed during the biological survey
Chaetodipus fallax fallax Northwestern San Diego pocket mouse	US: – CA: SSC MSCP: –	Found in sandy herbaceous areas, usually associated with rocks or coarse gravel in coastal scrub, chaparral, grasslands, and sagebrush, from Los Angeles County through southwestern San Bernardino, western Riverside, and San Diego Counties to northern Baja California.	Year-round	Absent. Suitable habitat for this species was not present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Choeronycteris mexicana Mexican long-tongued bat	US: - CA: SSC MSCP: -	Occasionally found in San Diego County, which is on the periphery of their range. Feeds on nectar and pollen of night-blooming succulents. Roosts in relatively well-lit caves, and in and around buildings.	Year-round	Absent. Suitable habitat for this species was not present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.
Corynorhinus townsendii Townsend's big- eared bat	US: – CA: SSC MSCP: –	Requires caves, mines, tunnels, buildings, or other similar structures for roosting. May use buildings or bridges for roosting. Often uses use separate sites for night, day, hibernation, or maternity roosts. Ranges from southwestern Canada through the western United States to southern Mexico.	Year-round; nocturnal	Absent. Although a CNDDB occurrence of this species is 1.75 mile northwest of the BSA, it is from 1932. Suitable roosting habitat for this species was not present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.
Euderma maculatum Spotted bat	US: – CA: SSC MSCP: –	Found in various communities including desert-scrub, pinyon-juniper woodland, ponderosa pine, mixed conifer forest, canyons, cliffs, riparian areas, fields, and open pasture at scattered localities in western North America from southern British Columbia to north-central Mexico. Roosts in cracks, crevices, and caves, usually on exposed cliff faces. Poorly known. Wanders widely and through varied habitats when foraging.	Year-round; nocturnal	Absent. Suitable roosting habitat for this species was not present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Eumops perotis californicus Greater western mastiff bat	US: – CA: SSC MSCP: –	Occurs in many open, semi- arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc.; roosts in crevices in vertical cliff faces, high buildings, and tunnels, and travels widely when foraging.	Year-round; nocturnal	Absent. Suitable roosting habitat for this species was not present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.
Felis concolor Mountain lion	US: – CA: – MSCP: C	Largest range of any wild land animal in the Americas. Its range spans from northern Yukon in Canada to the southern Andes. Its wide distribution stems from its adaptability to virtually every habitat type; it is found in all forest types, as well as in lowland and mountainous deserts. The cougar prefers habitats that include precipitous canyons, escarpments, rim rocks, and dense brush, but can also live in open areas with little vegetation	Year-round	Absent. Suitable habitat for this species was not present within the BSA and this species was not observed during the biological survey.
Lasiurus blossevillii Western red bat	US: – CA: SSC MSCP: –	Roosts in the foliage of trees and shrubs, commonly in edge habitats along streams or open fields, and sometimes in orchards or urban areas. Often associated with riparian habitats, particularly those containing sycamores and cottonwoods.	Year-round; nocturnal	Low. Although marginally-suitable habitat (trees and open fields) for this species was present within the BSA, the habitat is not optimal due to the absence of a consistent water source, no CNDDB occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Lasiurus cinereus Hoary bat	US: – CA: SA MSCP: –	Forages over a wide range of habitats, but prefers open habitats with access to trees, for roosting, and water. Ranges throughout most of California.	Primarily the warmer months; leaves colder areas during winter	within the BSA and one CNDDB occurrence from 1966 was identified 1.75 mile northwest of the BSA; however, the habitat on site is not optimal due the absence of a consistent water source. This species was not observed during the biological survey.
Lasiurus xanthinus Western yellow bat	US: – CA: SSC MSCP: –	Varied habitats, but usually near water; often associated with palm trees. Southwestern United States to southern Mexico.	Primarily the warmer months	Low. Although Mexican fan palm trees occur within the BSA and a CNDDB occurrence from 1984 was identified 1.75 miles northwest of the BSA, habitat on site is not optimal due to the absence of a consistent water source. This species was not observed during the biological survey.
Lepus californicus bennettii San Diego black- tailed jackrabbit	US: – CA: SSC MSCP: –	Variety of habitats including herbaceous and desert scrub areas, early stages of open forest and chaparral. Most common in relatively open habitats. Restricted to the cismontane areas of Southern California, extending from the coast to the Santa Monica, San Gabriel, San Bernardino, and Santa Rosa Mountain ranges.	Year-round, diurnal and crepuscular activity	Absent. Suitable habitat for this species was not present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.
Myotis ciliolabrum Western small- footed myotis	US: – CA: SA MSCP: –	Occupies a wide variety of habitats, primarily relatively arid wooded and brushy uplands near water. Sea level to at least 2,715 meters (8,900 feet) elevation. Contra Costa County south to the Mexican border, west and east sides of the Sierra Nevada and in the deserts from Modoc to Kern and San Bernardino Counties.	Primarily the warmer months	Absent. Suitable roosting habitat for this species was not present within the BSA (insufficient water), no CNDDB occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Myotis yumanensis Yuma myotis	US: – CA: SA MSCP: –	Optimal habitats are open forests and woodlands with sources of water over which to feed. Common and widespread in California. Uncommon in the Mojave and Colorado Desert regions, except for mountains. Ranging generally from sea level to 2,440 meters (8,000 feet). Roosts in buildings, mines, caves or crevices; occasionally in swallow nests and under bridges.	Primarily the warmer months	Absent. Suitable roosting habitat for this species was not present within the BSA (insufficient water), no CNDDB occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.
Neotoma lepida intermedia San Diego desert woodrat	US: – CA: SSC MSCP: –	Found in desert scrub and coastal sage scrub habitat, especially in association with cactus patches. Builds stick nests around cacti or on rocky crevices. Occurs along the Pacific slope from San Luis Obispo County to northwest Baja California.	Year-round, mainly nocturnal, occasionally crepuscular and diurnal	Absent. Suitable habitat for this species was not present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.
Nyctinomops femorosaccus Pocketed free- tailed bat	US: – CA: SSC MSCP: –	Usually associated with cliffs, rock outcrops, or slopes. May roost in buildings (including roof tiles) or caves. Occurs from the southwestern United States to central Mexico.	Year-round; nocturnal	Absent. Although a 1988 CNDDB occurrence of this species was identified 1.75 miles northwest of the BSA, suitable habitat for this species was not present within the BSA and this species was not observed during the biological survey.
Nyctinomops macrotis Big free-tailed bat	US: – CA: SSC MSCP: –	Inhabits rugged, rocky canyon country in southwestern United States. Found from northern South America and the Caribbean Islands northward to the western United States. In the southwestern U.S., populations appear to be scattered.	Probably year- round	Absent. Although a 1988 CNDDB occurrence of this species was identified 1.75 miles northwest of the BSA, suitable habitat for this species was not present within the BSA and this species was not observed during the biological survey.

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Odocoileus hemionus Southern mule deer	US: – CA: – MSCP: C	Highly adaptable. Common in mountain forests, deserts, and brushlands. Known in the western Great Plains, in the Rocky Mountains, in the United States southwest, and on the west coast of North America	Year-round	Low. Suitable habitat for this species was not present within the BSA; however, it is possible for this species to forage in unsuitable habitat.
Onychomys torridus ramona Southern grasshopper mouse	US: – CA: SSC MSCP: –	Sandy or gravelly valley floor habitats with friable soils in open and semi-open scrub, including coastal sage scrub, mixed chaparral, low sagebrush, riparian scrub, and annual grassland with scattered shrubs, preferring low to moderate shrub cover. More susceptible to small- and large-scale habitat loss and fragmentation than most other rodents, due to its low fecundity, low population density, and large home range size. Arid portions of southwestern California and northwestern Baja California.	Nocturnal, active year-round	Absent. Suitable habitat for this species was not present within the BSA, no CNDDB occurrences of this species were identified within 2 miles of the BSA, and this species was not observed during the biological survey.
Taxidea taxus American badger	US: – CA: SSC MSCP: C	Primary habitat requirements seem to be sufficient food and friable soils in relatively open uncultivated ground in grasslands, woodlands, and desert. Widely distributed in North America.	Year-round	Low. Although suitable habitat (friable soils and grassland/woodlands) for this species was present within the BSA and a CNDDB occurrence of this species was identified 1.75 miles northwest of the BSA (unknown date), neither this species nor appropriately-sized burrows were observed during the biological survey.

STATUS ABBREVIATIONS

US: Federal Classifications

- No applicable classification.
- FE Taxa federally-listed as Endangered.
- FT Taxa federally-listed as Threatened.
- CS Candidate Species

CA: State Classifications

- No applicable classification.
- SE Taxa State-listed as Endangered.

STATUS ABBREVIATIONS

- ST Taxa State-listed as Threatened.
- FP Fully-Protected Species
- SSC California Species of Special Concern. Refers to animals with vulnerable or seriously declining populations.
- WL California Species of Special Concern Watch List.
- SA Special Animal. Refers to any other animal monitored by the Natural Diversity Data Base, regardless of its legal or protection status.
- SP Special Plant. Refers to any other plant monitored by the Natural Diversity Data Base, regardless of its legal or protection status.

California Rare Plant Rankings (CRPR)

- No applicable classification.
- 1B Rare, threatened, or endangered in California and elsewhere.
- 2B Rare, threatened, or endangered in California, but more common elsewhere.
- 3 Review list: plants about which more information is needed.
- 4 Watch list: plants of limited distribution.

CRPR Extensions

- 0.1 Seriously endangered in California (greater than 80% of occurrences threatened/high degree and immediacy of threat).
- 0.2 Fairly endangered in California (20 to 80% occurrences threatened).
- 0.3 Not very threatened in California (less than 20% occurrences threatened)

California Rare Plant Ranks are assigned by a committee of government agency and non-governmental botanical experts and are not official State designations of rarity status.

County of San Diego Multiple Species Conservation Program (MSCP) Classifications

- Species not covered by the MSCP.
- C Covered: Species for which take authorization is provided because long-term viability has been determined to be adequately maintained under the MSCP.