

EXECUTIVE SUMMARY

The Draft Natural Community Conservation Plan/Master Streambed Alteration Agreement/Habitat Conservation Plan (NCCP/MSAA/HCP) sets forth a proposed Conservation Strategy that would be implemented by the County of Orange in cooperation with state and federal agencies and Participating Landowners in southern Orange County. The proposed Conservation Strategy focuses on long-term protection and management of multiple natural communities that provide habitat essential to the survival of a broad array of wildlife and plant species. The Draft Southern Orange County Subregional NCCP/MSAA/HCP (Southern NCCP/MSAA/HCP) is an outgrowth of a five-county Southern California regional conservation planning program that was initiated with enactment of the NCCP Act of 1991 by the Legislature. This *Executive Summary* provides an overview of the primary elements and features of the Draft NCCP/MSAA/HCP, beginning with a summary of the conservation planning premises.

The 132,000-acre Southern Subregion (Study Area) includes the 40,000-acre Cleveland National Forest (CNF) and about 92,000 acres (the Planning Area) that is divided into four Subareas (see *Figure 24-M*). The overall Southern NCCP/MSAA/HCP documentation is contained in five separate volumes, or parts. These parts include:

- *Part I* – the NCCP/MSAA/HCP;
- *Part II* – the Joint Programmatic EIR/EIS;
- *Part III* – the Implementation Agreement and Attached MSAs;
- *Part IV* – the Map Book that contains the figures identified in *Parts I* through *III*; and
- *Part V* – the supporting Technical Appendices.

This *Executive Summary* addresses the draft *Part I* NCCP/MSAA/HCP and all references to *Chapters* in the *Executive Summary* refer to *Part I*.

1. NCCP/MSAA/HCP Conservation Planning Statutory Requirements

The federal and state regulatory programs and statutes that set forth the requirements for conservation planning efforts are as follows:

a. The Federal Endangered Species Act (FESA)

In enacting FESA, Congress declared that one of the main “purposes” of FESA is to “provide a means whereby the ecosystems upon which endangered and threatened species depend may be conserved” (16 U.S.C. 1531(b)). With respect to actions proposed that would impact endangered and threatened species, Section 10(a)(1)(B) of the FESA requires the consideration of avoidance (alternatives to proposed “take”), minimization and mitigation actions to provide

for the conservation of these species. As reviewed in *Chapters 1 and 14*, the U.S. Fish and Wildlife Service (USFWS) has concluded that HCPs offer the best tool for achieving conservation benefits.

b. The NCCP Act and Landscape-Scale Natural Community Conservation Planning

In 1991, the California Legislature enacted the NCCP Act. The Legislature found and declared, as part of the Legislative Findings for the Act (“Legislative Findings”), that “there is a need for broad-based planning to provide for effective protection and conservation of the state’s wildlife heritage while continuing to allow appropriate development and growth.” According to the Legislative Findings for the NCCP Act, “Natural community conservation planning is a mechanism that can provide an early planning framework for proposed development projects in order to avoid, minimize and compensate for project impacts to wildlife” (Legislative Findings, Section One, AB 2172, 1991). As reviewed in *Chapters 1 and 14*, the State of California initiated the formulation of a regional conservation planning program, intended to be implemented on a subregional basis, through the preparation of the NCCP Process Guidelines and Conservation Guidelines.

Consistent with the NCCP Process Guidelines and Conservation Guidelines, the proposed NCCP/MSAA/HCP integrates broad landscape-scale natural communities conservation planning with the requirements of the NCCP Act, FESA and Fish and Game Code Section 1600 *et seq.* relating to the long-term protection of listed and unlisted species and associated habitats. Given the NCCP/HCP regional and subregional conservation planning focus, the consideration of alternatives, avoidance, minimization and mitigation for purposes of consistency with applicable statutory standards must necessarily relate to the goals, policies and principles of this large-scale conservation planning program (see *Chapter 14*).

c. California Fish and Game Code Section 1600 et seq. (Streambed Act)

Section 1602(a) of the Streambed Act states that “an entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake ... unless” certain requirements are met including, for activities that may “substantially adversely affect an existing fish or wildlife resource,” the issuance of a final agreement that includes reasonable measures necessary to protect the resource, and the entity conducts the activity in accordance with the agreement.” Under Fish and Game Code Section 1605(g), the California Department of Fish and Game (CDFG) may enter into long-term agreements if certain conditions are met, including provisions for providing a status report addressing the topics identified in that subsection and provisions for department review and consultation regarding the status report. According to CDFG regulations:

“A ‘Master Agreement’ means an agreement with a term of greater than five years that (1) covers multiple projects. . . . The master agreement will specify a process the department and entity will follow before each project begins and may identify various measures the entity will be required to incorporate as part of each project in order to protect fish and wildlife resources “A master agreement will typically, but not always, encompass one or more watersheds and/or relate to a habitat conservation plan or natural community conservation plan.”

(Title 14 Code of California Regulations, Section 699.5(a)(1)(G))

2. Conservation Strategy Components and Related Conservation Planning Policies

The goal of the Southern NCCP/MSAA/HCP is to fashion a habitat conservation planning and implementation program that addresses coastal sage scrub and other natural communities on a subregional level. According to the NCCP Conservation Guidelines:

. . . subregional NCCPs will designate a system of interconnected reserves designed to: 1) promote biodiversity, 2) provide for high likelihoods for persistence of target species in the subregion, and 3) provide for no net loss of habitat value from the present, taking into account management and enhancement. No net loss of habitat value means no net reduction in the ability of the subregion to maintain viable populations of target species over the long-term.

To achieve the above-stated goals a typical “Conservation Strategy” includes four distinct programmatic elements for carrying out conservation planning at the subregional level. Each of the following programmatic elements is described briefly in this Executive Summary (ES) and in the NCCP/MSAA/HCP:

- ***Creation of a Permanent Habitat Reserve:*** The process related to creating a permanent habitat reserve is reviewed in *Chapters 6, 8 and 9* and the proposed Habitat Reserve is described in *ES Section 3* and in *Chapter 10*.
- ***Habitat Reserve Management Program (HRMP):*** This programmatic element is reviewed in this *ES Section 4* and in *Chapter 7*.
- ***Regulatory Coverage for Covered Activities and Designated Covered Species and CDFG Jurisdictional Areas:*** A third programmatic element of the Conservation Strategy addresses the potential impacts of identified activities analyzed by this NCCP/MSSA/HCP (Covered Activities) on designated species (Covered Species) and on CDFG Jurisdictional Areas (see *ES Section 5* and *Chapters 1, 10 and 13*).

- **Implementation Agreement and Funding Provisions and MSAs:** The fourth programmatic element of the Conservation Strategy are the NCCP/HCP Implementation Agreement (IA) and companion MSAs that identify the rights and obligations of all signatory parties to the approved NCCP/MSAA/HCP and related funding provisions.

3. *Creation of a Permanent Habitat Reserve*

The habitat reserve design process set forth in *Chapters 6, 8 and 9* focuses on the creation of a subregional Habitat Reserve capable of protecting, managing and maintaining populations of designated “planning species” over the long term. The intent has been to include in the Habitat Reserve those land areas necessary for the dispersal of planning species and for maintaining genetic flow within the subregion and between the subregion and adjacent protected open space areas. Based on the habitat reserve design and evaluation process described in *Part I*, the B-12 Habitat Reserve Alternative was selected to provide the basis for the proposed Conservation Strategy and as the basis for the proposed 32,818-acre permanent Habitat Reserve in Subarea 1 (*Figure 167-M*).

The B-12 Alternative was selected because it provides for a large, biologically diverse and permanent subregional Habitat Reserve that would protect: **(1)** large blocks of natural vegetation communities that provide habitat for species of interest described in *Chapter 7* and *Chapter 13*; **(2)** *important and major populations* of species in *key locations* (see *Chapter 4* for definitions of these terms); **(3)** wildlife corridors and habitat linkages that connect the large habitat blocks and species populations to each other, the CNF and adjacent NCCP Subregions (see *Chapter 4* for detailed discussion); and **(4)** the underlying hydro-geomorphic processes that support the major vegetation communities providing habitat for the species that are proposed to receive regulatory coverage (see *Chapter 5* for detailed discussion). In addition, as analyzed in *Chapter 8*, the B-12 Alternative achieves a high level of consistency with the Draft Southern Planning Guidelines and Draft Watershed Planning Principles discussed in *Chapters 4* and *5* and would not rely on public acquisition funding. *Chapter 10, Section 10.3* describes the proposed Habitat Reserve, which is summarized briefly here.

The proposed Habitat Reserve would include two large ownerships, consisting of (see *Figure 168-M*):

- 11,950 acres owned by the County of Orange and contained within three existing County regional and wilderness parks located in Subarea 1 (O’Neill Regional Park, Riley Wilderness Park and Caspers Wilderness Park); and

- 20,868 acres owned by RMV, consisting of
 - 4,284 acres in existing conservation easements that were set aside by RMV prior to completion of the NCCP/MSAA/HCP;
 - 48 acres of RMV lands located within the Arroyo Trabuco (*i.e.*, within a CDFG conservation easement); and
 - 16,536 acres that would be provided by RMV as part of a Phased Dedication Program.

The proposed Habitat Reserve would be assembled at no cost to the public because the County parklands already are set aside and because RMV has offered to set aside about 16,536 acres (72 percent of its 22,815 acres) as part of a Phased Dedication Program linked to completion of construction in its designated development Planning Areas. *Part I: Tables ES-1 and ES-2*, respectively, summarize the Conserved Vegetation Communities and other natural communities and list the proposed Covered Species that would be protected within the proposed Habitat Reserve. All of the general vegetation communities found within the 92,000-acre Planning Area would be represented within the proposed Habitat Reserve.

**PART I: TABLE ES-1
NATURAL VEGETATION COMMUNITIES AND LAND COVERS
IN PROPOSED HABITAT RESERVE**

| Conserved Vegetation Community | Gross Conserved Acres in Habitat Reserve ¹ |
|---|---|
| Coastal Sage Scrub | 12,413 |
| Chaparral | 5,208 |
| Grassland | 5,933 |
| Riparian | 3,159 |
| Freshwater Marsh | 17 |
| Alkali Meadow | 36 |
| Open Water | 52 |
| Streamcourses | 25 |
| Woodland & Forest | 1,434 |
| Subtotal | 28,277 |
| Non-Conserved Vegetation Communities/Non-natural Land Covers | |
| Cliff & Rock | 5 |
| Agriculture | 1,941 |
| Disturbed | 468 |
| Developed | 495 |
| Subtotal | 2,909 |
| Additional Habitat Reserve Lands in PAs 4, 6, 7, and 8² | 1,632 |
| Total | 32,818 |

¹ Gross Conserved Acres in Habitat Reserve do not account for infrastructure impacts in the Habitat Reserve.

² Ultimately the Habitat Reserve will be increased by 1,632 acres. The breakout of vegetation communities and non-natural land covers assume an overstated impact scenario of 100 percent disturbance in Planning Areas (PAs) 4 and 8 and potential orchards in PAs 6 and 7 because specific impact areas have not been determined. The reader is directed to Chapter 13 for a full discussion of the conservation analysis methods.

**PART I: TABLE ES-2
SOUTHERN NCCP/MSAA/HCP PROPOSED COVERED SPECIES**

| Common Name | Scientific Name | Federal/State/CNPS (Plants)/ Science Advisors Group |
|--|--|--|
| Birds | | |
| Burrowing Owl | <i>Athene cunicularia</i> | FSC, BCC/CSC/3 |
| Coastal Cactus Wren | <i>Campylorhynchus brunneicapillus couesi</i> | BCC/CSC/2 |
| Coastal California Gnatcatcher | <i>Polioptila californica californica</i> | FT/CSC/2 |
| Cooper's Hawk | <i>Accipiter cooperii</i> | None/CSC/2 |
| Grasshopper Sparrow | <i>Ammodramus savannarum</i> | None/None/2 |
| Least Bell's Vireo | <i>Vireo bellii pusillus</i> | FE/SE/3 |
| Long-eared Owl | <i>Asio otus</i> | None/CSC/3 |
| Southwestern Willow Flycatcher | <i>Empidonx trallii extimus</i> | FE/SE/3 |
| Tricolored Blackbird | <i>Agelaius tricolor</i> | FSC, BCC/CSC/3 |
| White-tailed Kite | <i>Elanus leucurus</i> | FSC, MNBMC/FP/3 |
| Yellow-breasted Chat | <i>Icteria virens</i> | None/CSC/3 |
| Yellow Warbler | <i>Dendroica petechia</i> | None/CSC/3 |
| Amphibians | | |
| Arroyo Toad | <i>Bufo californicus</i> | FE/CSC/3 |
| Western Spadefoot Toad | <i>Spea [=Scaphiopus] hammondii</i> | FSC/CSC/3 |
| Reptiles | | |
| California Glossy Snake | <i>Arizona elegans occidentalis</i> | None/None/3/ |
| Coast Patch-nosed Snake | <i>Salvadora hexalepis virgulata</i> | None/CSC/2 |
| Northern Red-diamond Rattlesnake | <i>Crotalus ruber ruber</i> | None/CSC/3 |
| Orange-throated Whiptail | <i>Aspidoscelis hyperythra [=Cnemidophorus hyperythrus] beldingi</i> | None/CSC/2 |
| Red Coachwhip | <i>Masticophis flagellum piceus</i> | None/None/None |
| "San Diego" Coast Horned Lizard | <i>Phrynosoma coronatum</i> (blainvillei population) | FSC/CSC/2 |
| Southwestern Pond Turtle | <i>Emys [=Clemmys] marmorata pallida</i> | FSC/CSC/3 |
| Fish | | |
| Arroyo Chub | <i>Gila orcutti</i> | FSC/CSC/3 |
| Partially-armored Threespine Stickleback | <i>Gasterosteus aculeatus</i> ssp. <i>microcephalus</i> | None/None/3 |
| Invertebrates | | |
| Riverside Fairy Shrimp | <i>Streptocephalus woottoni</i> | FE/None/3 |
| San Diego Fairy Shrimp | <i>Branchinecta sandieogonensis</i> | FE/None/3 |
| Plants | | |
| California Scrub Oak | <i>Quercus berberidifolia</i> | None |
| Chaparral Beargrass | <i>Nolina cismontana</i> | None/None/List 1B.2 |
| Coast Live Oak | <i>Quercus agrifolia</i> | None |
| Coulter's Saltbush | <i>Atriplex coulteri</i> | None/None/List 1B.2 |
| Many-stemmed Dudleya | <i>Dudleya multicaulis</i> | None/None/List 1B.2 |
| Southern Tarplant | <i>Centromadia parryi</i> var. <i>australis</i> | None/None/List 1B.1 |
| Thread-leaved Brodiaea | <i>Brodiaea filifolia</i> | FT/SE/List 1B.1 |

Federal & State Status

| | |
|-------|--|
| BCC | U.S. Fish and Wildlife Service Bird of Conservation Concern |
| FE | Federally Listed Endangered Species |
| FSC | Federal Species of Concern |
| FP | State Fully Protected |
| FT | Federally Listed Threatened Species |
| MNBMC | U.S. Fish and Wildlife Service Migratory Nongame Birds of Management Concern |
| CSC | California Species of Special Concern |
| SE | State Listed Endangered |
| ST | State Listed Threatened |

Science Advisors Categories

1. Species whose conservation is minimally affected by the reserve planning process
2. Species conserved most effectively at the habitat or landscape level.
3. Species requiring species-level conservation action.

CNPS (California Native Plant Society)Lists

- 1B: Rare or Endangered in California and Elsewhere

Threat Code Extension

- .1: Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- .2: Fairly endangered in California (20-80% occurrences threatened)

4. Implementation of the Habitat Reserve Management Program (HRMP)

The HRMP focuses on the creation of the technical and institutional capability for undertaking coordinated monitoring and management actions necessary or helpful to sustain and enhance species populations and associated habitats over the long term, while adapting management actions to new information and changing habitat conditions. *Chapter 7* and accompanying *Appendices E* through *K*, and *N* describe the subregional HRMP and two major implementation components: **(1)** the Ongoing Management Program (OMP) on County parklands within the Habitat Reserve; and **(2)** the Adaptive Management Program (AMP) that would be implemented on the RMV portion of the Habitat Reserve and on selected portions of the County parklands within the Habitat Reserve. The HRMP is designed to provide for permanent management of biological resources and hydro-geomorphic processes that provide habitat for the proposed Covered Species and, consistent with the NCCP Act and FESA, to maintain net habitat value over the long term within the Subregion. As explained in *Chapter 7, Section 7.2* (Noon and Murphy comments), the HRMP may be more important to successful long-term conservation of species and Conserved Vegetation Communities that provide the essential habitat than the decision concerning the size of the Habitat Reserve.

HRMP management/restoration programs and measures are designed to be implemented on a subregional basis to assure that: **(1)** *important* and *major populations* of Covered Species in *key locations* and other populations are conserved; **(2)** large blocks of natural lands containing the Conserved Vegetation Communities that provide the habitat necessary to support Covered Species and other sensitive species are managed, and where feasible and appropriate, enhanced

and restored over the long term; (3) CDFG Jurisdictional Areas will be protected and managed over the long term; and (4) wildlife corridors and habitat linkages are identified, protected and managed to provide for permanent biological connectivity linking the large habitat blocks within the study area with each other and with adjacent NCCP Subregions and the CNF.

5. *Participating Landowners and Covered Activities*

As reviewed in *Chapter 10*, the Southern NCCP/MSAA/HCP involves three Participating Landowners:

- the County of Orange (County);
- Rancho Mission Viejo (RMV); and
- Santa Margarita Water District (SMWD).

Chapter 10 and the *Part V Appendices* also identify in detail a wide range of activities that would impact Covered Species and CDFG Jurisdictional Areas and are evaluated in the NCCP/MSAA/HCP and accompanying *Part II Joint Programmatic EIR/EIS*. For specific discussions/descriptions of Covered Activities refer to *Chapters 10* and *11* and the *Part V Appendices*. Generally, these Covered Activities include:

- For the County of Orange Covered Activities include (see *Chapters 10* and *11* and *Appendix M* for specific descriptions)
 - Adaptive management activities within the existing County regional and wilderness parklands portion of the Habitat Reserve in Subarea 1;
 - Improvements to and extension of La Pata Avenue in Subareas 1 and 4 resulting in up to 331 acres of authorized impacts; and
 - Activities related to the operation and expansion of the Prima Deshecha Landfill facility, including mitigation activities on County parklands in Subarea 1, resulting in 999 acres of permanent impacts and temporary impacts within the SOS area portion of the landfill facility as provided for in the NCCP/MSAA/HCP.

In addition to the above Covered Activities, ongoing management and operations of the existing facilities in the three existing County parklands are treated as Compatible Uses. Compatible Uses involve activities within the parklands that do not require Take authorization.

- For RMV Covered Activities within Subarea 1 include the following activities that would result in permanent impacts that would include up to 7,788 acres within development Planning Areas (in the overstated impact scenario for Planning Areas 4 and 6-8)¹, 327

¹ The maximum development acreage under the NCCP/MSAA/HCP for PA's 4 and 6-8 would be: 725 acres in PA 4 (550 acres for development and 175 acres allotted for reservoir uses); 50 acres of orchards (total) in PA's 6 and/or 7.

acres within the Habitat Reserve (for infrastructure) and 34 acres with Supplemental Open Space (SOS). In addition, 260 acres of temporary impacts within the Habitat Reserve and 20 acres of temporary impacts within SOS areas would be authorized (see *Chapters 7, 10 and 11* and *Appendix S* for specific descriptions of Covered Activities, and *Chapter 13, Table 13-19A* for impact acreages). The Covered Activities would include:

- HRMP activities involving monitoring throughout the Habitat Reserve, adaptive management of the RMV portion of the Habitat Reserve and adaptive management activities within the County portion of the Habitat Reserve under specified conditions;
 - Ongoing ranching activities, including grazing per the Grazing Management Plan (*Appendix G*);
 - Construction of residential, commercial, industrial and infrastructure facilities related to the approved Ranch Plan Project;
 - Maintenance and operations of existing ranch and infrastructure facilities and
 - Activities related to the operation of the Ortega Rock Facility.
- For SMWD (see *Chapters 10 and 11* and *Appendix T* for specific descriptions)
 - Construction of designated infrastructure, including pipelines, pump stations, reservoirs and other facilities resulting in 73 acres of permanent impacts in Subarea 1; and
 - Operation and maintenance of existing and proposed facilities throughout Subareas 1, 3 and 4, resulting in an additional 146 acres of temporary impacts in Subarea 1 and a further 15 acres of impacts in SOS.
6. Summary of Species and CDFG Jurisdictional Areas Receiving Regulatory Coverage under FESA and the NCCP Act

Regulatory coverage will be provided for: **(1)** NCCP Act Section 2835 taking of designated listed and unlisted plant and animal species; **(2)** impacts to CDFG Jurisdictional Areas; **(3)** HCP FESA Section 10 (a)(1)(B) incidental take permit for designated listed and unlisted fish and wildlife species. Such regulatory coverage will have a 75-year term following the Effective Date of the NCCP/MSAA/HCP.

Chapter 13 contains a detailed discussion of the conservation, impacts, management and regulatory coverage that would be provided under this NCCP/MSAA/HCP. *Appendix E* provides the detailed Species Accounts and Conservation Analyses that support the recommended regulatory coverage. *Chapter 1, Section 1.1* briefly summarizes the scope of regulatory coverage provided under the NCCP/MSAA/HCP. As defined in *Chapter 1*, the term “Conserved Vegetation Communities” is defined as those vegetation communities that: **(1)** are

designated to be adaptively managed in accordance with the Adaptive Management Program (AMP) and Ongoing Management Plan (OMP) components of the Habitat Reserve Management Program (HRMP) discussed in *Chapter 7*; (2) are permanently and sufficiently protected consistent with the requirements of the NCCP Conservation Guidelines (*i.e.*, in terms of the number of acres of vegetation and share of the total vegetation community in the study area) as part of the Habitat Reserve to be considered conserved; and (3) provide the habitat that supports regulatory coverage for the Covered Species identified in this NCCP/MSAA/HCP.

Part I: Tables ES-2 and ES-3 identify, respectively: (1) the 7 listed and 25 non-listed Covered Species that would receive regulatory coverage under the draft Conservation Strategy; and (2) the conservation and impacts, rationale for providing the proposed regulatory coverage and general description of monitoring measures related to each Covered Species.

Chapter 13, Section 13.4 provides a summary of impacts and avoidance of streams, wetlands and other aquatic features subject to jurisdiction under the Streambed Act. As noted, under the proposed Conservation Strategy, of the total CDFG Jurisdictional Areas located within Subarea 1 (about 3,330 acres) about 186 acres (5.6 percent) of CDFG Jurisdiction Area would be impacted and approximately 3,144 acres would be avoided (see *Chapter 13, Section 13.4* and *Table 13-25*).

Chapter 13, Table 13-26 identifies CDFG Jurisdictional Areas impacts by Participating Landowner. Based on *Table 13-26*:

- The County's Covered Activities would result in 12.88 acres of permanent impacts and no temporary impacts for the Avenida La Pata Improvement Project and 14.85 acres of permanent impacts and no temporary impacts for the Prima Deshecha Landfill facility;
- RMV Covered Activities would result in 158 acres of permanent and 55 acres of temporary impacts;
- SMWD Covered Activities would result in no permanent impacts and 25 acres of temporary impacts.

7. *Implementation Agreement and Summary of Costs and Funding*

The *Part III IA* and attached MSAA's set forth the specific terms and provisions governing implementation of the Conservation Strategy and the long-term funding mechanisms that will assure implementation the NCCP/MSAA/HCP consistent with the terms of the approved IA, FESA, the NCCP Act and the Streambed Act (Fish and Game Code Section 1600 *et seq.*). The companion MSAA's terms and conditions are incorporated by reference into the NCCP/HCP IA. The NCCP/HCP IA and companion MSAA provide for mutual assurances and other provisions required for the long-term implementation of the NCCP/MSAA/HCP.

As described in *Chapter 12* and the *Part III IA*, the proposed Conservation Strategy HRMP within the Subarea 1 Habitat Reserve would be funded over the 75-year term of the Permits and IA in the following manner:

- RMV will create a Benefit Fee Program associated with the close of escrow for the first sale of each of the 10,500 “for sale” residential dwelling units in the approved development Planning Areas to fund AMP management and monitoring measures. The Benefit Fee Program is intended to be an operating fund for the AMP component of the HRMP over the 75-year term of the Permits and IA. At the conclusion of the 75-year permit term, an accumulated endowment of \$87 million is projected to exist as set forth in *Table 12-3*.
- The RMV Benefit Fee also would generate a reserve fund that would grow to a maximum of \$5 million during the 75-year term of the IA. This reserve fund is called the “Changed Circumstance Reserve Account” and would be funded over and above the operating fund to address the potential for changed circumstances within the Habitat Reserve that could generate the need for currently unidentified management/monitoring responses;
- The County may generate up to \$2.18 million for AMP activities in County parklands through an “opt in” in-lieu mitigation fee generated by development of the remaining undeveloped residential lots in Subarea 3 (Coto de Caza) which will be secured in an endowment;
- Additional funding would be provided through available state/federal grants for adaptive management and monitoring; and
- Ongoing operations and management of County parklands for Compatible Uses would continue to be funded by the County of Orange, generating an estimated \$1.4 million for the 11,950 acres of parklands.

This funding is adequate to provide for the AMP management and monitoring measure costs described in *Table 17-17* and total annual costs summarized in *Tables 12-1* and *12-2*.

**PART I: TABLE ES-3
CONSERVATION AND IMPACT SUMMARY FOR PROPOSED COVERED SPECIES IN SUBAREA 1**

| Proposed Covered Species ¹ | Conserved | | Permanent Direct Impact | General Basis for Analysis of Coverage | Management & Monitoring Methods/Key Management Issues | Meets Federal & State Take Authorization Standards |
|--|--|---|---|--|--|--|
| | Habitat Reserve | Supplemental Open Space | | | | |
| Burrowing Owl <i>Athene cunicularia</i> FSC, BCC, CSC | 7,568 acres (60%) of grassland and barley field agriculture | 957 acres (8%) of grassland | 4,199 acres (33%) of grassland and barley field | Landscape natural community and barley field agriculture, site-specific information for wintering owls, and habitat blocks | Landscape natural community based. Pre-construction surveys for active breeding dens | Yes |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the burrowing owl is warranted within Subarea 1 because the Habitat Reserve and Habitat Reserve Management Program (HRMP) would provide fully adequate conservation measures, including: (1) conservation of approximately 60 percent of suitable habitat in the Habitat Reserve and conservation of an additional 8 percent of habitat in Supplemental Open Space (SOS); (2) conservation of recent documented overwintering owl use sites in Chiquita Canyon, along Radio Tower Road and in Cristianitos Canyon; (3) fire management and the coordinated Grazing Management Plan (GMP); and (4) subject to Reserve Manager and Science Panel discretion, restoration of coastal sage scrub/valley needlegrass grassland (CSS/VGL) on Chiquita Ridge, Chiquadora Ridge, in Sulphur Canyon, in upper Cristianitos Canyon, and in upper Gabino Canyon that would enhance habitat quality. In light of the lack of documented breeding activity in the subregion, and thus relatively little, if any, impact of the proposed Covered Activities on the range-wide viability of the burrowing owl, 68 percent of conserved habitat is adequate for coverage of this species. In conjunction with the conservation and management measures discussed in Chapter 13, restoration activities identified in Chapter 13 also would provide significant benefits to the species. Finally, the burrowing owl and its habitat have already been substantially conserved in coastal southern California, having received regulatory coverage under the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) and the San Diego Multiple Species Conservation Plan (MSCP).</p> | | | | | | |
| Coastal Cactus Wren <i>Campylorhynchus bruneicapillus couesii</i> BCC, CSC | 12,191 acres (73%) of coastal sage scrub and 853 locations (73%) | 2,196 acres (13%) of coastal sage scrub and 98 locations (8%) | 2,242 acres (14%) of coastal sage scrub and 216 locations (18%) | Landscape natural community, habitat blocks, habitat connectivity, habitat contiguity, and site-specific information | Landscape natural community and site-and species-specific based, including fire management, urban-related predators, habitat restoration | Yes |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the coastal cactus wren is warranted because approximately 73 percent of habitat and locations would be conserved and managed in the Habitat Reserve. An additional 13 percent of habitat and 8 percent of locations would be SOS, almost all of which are on NAS Starr Ranch, resulting in 86 percent conservation of habitat and 81 percent conservation of locations. Conserved locations and habitat include the areas with the highest population densities, including Chiquita Canyon/Chiquadora Ridge and Caspers Wilderness Park. Large, intact local populations (<i>i.e.</i>, at least 50 locations) would be conserved within five of the six refined habitat blocks that support cactus wrens, and all habitat blocks would be adequately connected by natural habitats to maximize the likelihood of sustaining local populations over the long term, including recolonization of the smaller local populations that are at higher risk of short-term, temporary extirpations. In addition to the wildlife corridors/habitat linkages provided within the Southern Subregion, important open space protection providing connectivity between the Southern Subregion and the Central Subarea portion of the Central/Coastal NCCP Subregion already is provided within Subarea 2. Based on cooperative actions involving the County, landowners in Subarea 2 and the Wildlife Agencies, important open space in Saddleback Meadows, Live Oak Plaza and the County-owned parcel located north of the Oso Reservoir and adjacent to the western boundary of O'Neill Regional Park has been protected to supplement previously protected open space. The County and Wildlife Agencies have determined that, cumulatively, these new open space areas provide important connectivity between the habitat blocks and species populations located within the adjacent NCCP Subregions. The County and Wildlife Agencies also agree that this enhanced connectivity contributes significantly to the conservation of the species. Furthermore, the coastal cactus wren and its habitat have already been substantially conserved in coastal southern California, having received regulatory coverage under the Central/Coastal NCCP/HCP, Western Riverside County MSHCP, and the San Diego MSCP and Multiple Habitat Conservation Plan (MHCP).</p> | | | | | | |

**PART I: TABLE ES-3
CONSERVATION AND IMPACT SUMMARY FOR PROPOSED COVERED SPECIES IN SUBAREA 1**

| Proposed Covered Species ¹ | Conserved | | Permanent Direct Impact | General Basis for Analysis of Coverage | Management & Monitoring Methods/Key Management Issues | Meets Federal & State Take Authorization Standards |
|---|---|--|--|--|--|--|
| | Habitat Reserve | Supplemental Open Space | | | | |
| Coastal California Gnatcatcher <i>Poliophtila californica californica</i> FT, CSC | 12,191 acres (73%) of coastal sage scrub and 400 locations (77%) | 2,196 acres (13%) of coastal sage scrub and 28 locations (5%) | 2,242 acres (14%) of coastal sage scrub and 90 locations (17%) | Landscape natural community, habitat blocks, habitat connectivity, habitat contiguity, site-specific information, <i>major</i> and <i>important populations</i> in key locations | Landscape natural community and site-and species-specific based; fire management, non-native species controls, habitat restoration | Yes |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the coastal California gnatcatcher is warranted in Subarea 1 because approximately 83 percent of locations and 86 percent of suitable habitat for the California gnatcatcher would be conserved in the Habitat Reserve and SOS, including 399 of 483 gnatcatcher locations (83 percent) in the <i>major</i> and <i>important populations</i> in Subarea 1. The <i>major</i> and <i>important populations</i> would be conserved in seven large, unfragmented habitat blocks. Key habitat linkages within Subarea 1 also would be conserved and managed. In addition to the wildlife corridors/habitat linkages provided within the Southern Subregion, important open space protection providing connectivity between the Southern Subregion and the Central Subarea portion of the Central/Coastal NCCP Subregion already is provided within Subarea 2. Based on cooperative actions involving the County, landowners in Subarea 2 and the Wildlife Agencies, important open space in Saddleback Meadows, Live Oak Plaza and the County-owned parcel located north of the Oso Reservoir and adjacent to the western boundary of O'Neill Regional Park has been protected to supplement previously protected open space. The County and Wildlife Agencies have determined that, cumulatively, these new open space areas provide important connectivity between the habitat blocks and species populations located within the adjacent NCCP Subregions. The County and Wildlife Agencies also agree that this enhanced connectivity contributes significantly to the conservation of the species. In conjunction with conservation of <i>major</i> and <i>important populations</i> and important habitat linkages, restoration activities identified in Chapter 13 also would provide significant benefits to the species. Conservation and management of the coastal California gnatcatcher in Subarea 1 would provide for recovery of the species in this area and substantially contribute to its recovery rangewide. Furthermore, the coastal California gnatcatcher and its habitat have already been substantially conserved in coastal southern California, having received regulatory coverage under the large programs such as the Central/Coastal NCCP/HCP, Western Riverside County MSHCP, and the San Diego MSCP and MHCP and smaller programs such as the Shell, East Coyote Hills, and Ocean Trails HCPs. In addition, substantial gnatcatcher populations occur on federal lands; 620 locations on MCB Camp Pendleton and 53 locations on MCAS Miramar.</p> | | | | | | |
| Cooper's Hawk <i>Accipiter cooperii</i> CSC | 4,537 acres (73%) of riparian and woodland and 30 historic nest sites (73%) | 929 acres (15%) of riparian and woodland and 5 historic nest sites (12%) | 750 acres (12%) of riparian and woodland and 6 historic nest sites (12%) | Landscape natural community and site-specific information | Landscape natural community and site-and species-specific based; hydrology and morphology, non-native species controls, fire management, disease and predation on oak woodlands (<i>i.e.</i> , acorns, seedlings, saplings); habitat restoration; raptor-related construction monitoring and preparation of Biological Resources Construction Plan (BRCP) | Yes |

**PART I: TABLE ES-3
CONSERVATION AND IMPACT SUMMARY FOR PROPOSED COVERED SPECIES IN SUBAREA 1**

| Proposed Covered Species ¹ | Conserved | | Permanent Direct Impact | General Basis for Analysis of Coverage | Management & Monitoring Methods/Key Management Issues | Meets Federal & State Take Authorization Standards |
|---|--|--|---|---|--|--|
| | Habitat Reserve | Supplemental Open Space | | | | |
| | | | | | per Ranch Plan GPA/ZC EIR MMs 4.9-26 and 4.9-30 | |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the Cooper's hawk is warranted because the Habitat Reserve would conserve 73 percent of the historic nest sites and suitable nesting and foraging habitat. An additional 12 percent of nest sites and 15 percent of habitat conserved in SOS would result in 85 percent conservation of nest sites and 88 percent of habitat. Four historic nest sites would be directly impacted and two would be indirectly impacted. In conjunction with the conservation measures and adaptive management measures, the restoration activities identified in Chapter 13 also would provide significant benefits to the species. In addition, coverage is warranted because the Cooper's hawk is widely distributed beyond the Southern Subregion in California and throughout much of North America. Its global rank of G5 indicates that it is considered secure within the context of its broader range. The conservation and adaptive management measures would contribute to the viability of this species in California and within its global range. Finally, the Cooper's hawk and its habitat have already been substantially conserved in coastal southern California, having received regulatory coverage under the Western Riverside County MSHCP and the San Diego MSCP and MHCP.</p> | | | | | | |
| <p>Grasshopper Sparrow <i>Ammodramus savannarum</i></p> | 7,568 acres (60%) of grassland and barley agriculture and 382 locations (58%) | 957 acres (8%) of grassland and 8 locations (1%) | 4,199 acres (33%) of grassland and barely field agricultures and 267 locations (41%) | Landscape natural community, habitat blocks, habitat contiguity, site-specific information, <i>major</i> and <i>important populations</i> in <i>key locations</i> | Landscape natural community and site-and species-specific based; fire management, habitat restoration, non-native species (e.g., cowbirds) | Yes |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the grasshopper sparrow is warranted because the Habitat Reserve would protect and manage approximately 58 percent of documented locations and 60 percent of suitable grassland and agricultural habitat. With additional conservation of locations and habitat in SOS, the total conservation for grasshopper sparrow would be 59 percent of locations and 68 percent of habitat. As described in Chapter 13, at least an additional 300 acres of grassland in PAs 6 and 7 likely supporting additional grasshopper sparrow locations will be conserved upon final siting of the 50 acres of orchards. Conservation would be concentrated in the <i>major</i> and <i>important populations</i>, accounting for 368 of the 390 (94 percent) conserved locations. The large majority of the conserved locations are within large habitat blocks (331 of 390 locations; 85 percent), thus providing adequate unfragmented habitat to support nesting and foraging. In conjunction with the conservation and adaptive management measures, the restoration activities identified in Chapter 13 also would provide significant benefits to the species. In addition, coverage is warranted because the grasshopper sparrow is widespread beyond the Southern Subregion. Finally, the grasshopper sparrow and its habitat have been conserved in western Riverside County, having received regulatory coverage under the Western Riverside County MSHCP.</p> | | | | | | |
| <p>Least Bell's Vireo <i>Vireo bellii pusillus</i> FE, SE</p> | 615 acres (88%) of southern willow scrub and arroyo willow riparian forest and 43 nest sites (81%) | 10 acres (1%) of southern willow scrub and arroyo willow riparian forest and 3 nest sites (6%) | 72 acres (10%) of southern willow scrub, arroyo willow riparian forest and black willow riparian forest and 7 nest sites(13%) | Landscape natural community site-specific information, and <i>important populations</i> in <i>key locations</i> | Landscape natural community and site-and species-specific based; hydrology and geomorphology, non-native species, habitat restoration | Yes |

**PART I: TABLE ES-3
CONSERVATION AND IMPACT SUMMARY FOR PROPOSED COVERED SPECIES IN SUBAREA 1**

| Proposed Covered Species ¹ | Conserved | | Permanent Direct Impact | General Basis for Analysis of Coverage | Management & Monitoring Methods/Key Management Issues | Meets Federal & State Take Authorization Standards |
|--|--|--|---|--|--|--|
| | Habitat Reserve | Supplemental Open Space | | | | |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the least Bell's vireo is warranted because 81 percent of the nest locations and 88 percent of suitable habitat for the species would be conserved in the Habitat Reserve (<i>Table 13-2 and Figure 172-M</i>). An additional 6 percent of locations and 1 percent of habitat would be conserved in SOS, bringing the conservation total to 87 percent of nest locations and 89 percent of habitat. Both <i>important populations/key locations</i> would be conserved and adaptively managed in the Habitat Reserve. In addition, coverage is warranted because this species' primary breeding areas in southern California are outside the Southern Subregion (the subregion accounts for only about 2 percent of the nesting sites). In conjunction with conservation of the two <i>key locations</i> and adaptive management measures, the restoration activities identified in Chapter 13 also would provide significant benefits to the species. Conservation of the least Bell's vireo in Subarea 1 would provide for recovery of the species in this area and contribute to its recovery rangewide. Finally, the least Bell's vireo and its habitat have already been substantially conserved in coastal southern California, having received regulatory coverage under the Central/Coastal NCCP/HCP, Western Riverside County MSHCP and the San Diego MSCP and MHCP. A major population of the vireo in the Santa Margarita River also is conserved on MCB Camp Pendleton (Biological Opinion 1-6-95-F-02).</p> | | | | | | |
| Long-eared Owl <i>Asio otus</i> CSC | 3 historic nest sites (37%) | 3 historic nest sites (37%) | 2 historic nest sites (25%) | Site-specific information and landscape level for potential indirect impacts | Landscape natural community and site- and species-specific based; hydrology and morphology, non-native species controls, fire management, disease and predation on oak woodlands (<i>i.e.</i> , acorns, seedlings, saplings); habitat restoration; raptor-related construction monitoring and preparation of BRCP per Ranch Plan GPA/ZC EIR MMs 4.9-26 and 4.9-30 | Yes |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the long-eared owl is warranted because six of eight historic nest locations would be conserved in the Habitat Reserve (three sites) and SOS (three sites on NAS Starr Ranch) (<i>Figure 197-M</i>). Five of these six nest sites appear to be relatively secure from human disturbance, and public access to the nest sites in middle Gabino and La Paz canyons would be highly restricted. The three nest sites on Starr Ranch are subject to the ongoing management and protections afforded by the Sanctuary. In addition, coverage is warranted because this species is widely distributed and relatively secure within its global range, as indicated by its G5 global ranking. The proposed Covered Activities would not significantly impact the long-eared owl within the context of its global distribution.</p> | | | | | | |
| Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i> FE, SE | 615 acres (88%) of southern willow scrub and arroyo willow riparian forest and 6 nest sites (100%) | 10 acres (1%) of southern willow scrub and arroyo willow riparian forest | 72 acres (10%) of southern willow scrub, arroyo willow riparian forest and black willow riparian forest | Landscape natural community and site-specific information site-specific information, and <i>important populations in key locations</i> | Landscape natural community and site- and species-specific based; hydrology and geomorphology, non-native species, habitat restoration | Yes |

**PART I: TABLE ES-3
CONSERVATION AND IMPACT SUMMARY FOR PROPOSED COVERED SPECIES IN SUBAREA 1**

| Proposed Covered Species ¹ | Conserved | | Permanent Direct Impact | General Basis for Analysis of Coverage | Management & Monitoring Methods/Key Management Issues | Meets Federal & State Take Authorization Standards |
|---|--|---|---|--|---|--|
| | Habitat Reserve | Supplemental Open Space | | | | |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the southwestern willow flycatcher is warranted because the single <i>important population/key location</i> in GERA and 88 percent of suitable habitat for the species would be conserved in the Habitat Reserve (Figure 172-M). In conjunction with the conservation of the <i>key location</i> in GERA and adaptive management, the restoration activities identified in Chapter 13 also would provide significant benefits to the species. Conservation of the southwestern willow flycatcher in the Southern Subregion would provide for recovery of the species in the subregion and contribute to its recovery rangewide. In addition, coverage is warranted because this species' primary breeding areas in southern California are beyond the subregion (the subregion accounts for only about 4 percent of the nesting sites). Finally, the southwestern willow flycatcher and its habitat have already been substantially conserved in coastal southern California, having received regulatory coverage under the Central/Coastal NCCP/HCP, Western Riverside County MSHCP and the San Diego MSCP and MHCP. A major population of the willow flycatcher in the Santa Margarita River also is conserved on MCB Camp Pendleton (Biological Opinion 1-6-95-F-02).</p> | | | | | | |
| <p>Tricolored Blackbird <i>Agelaius tricolor</i> FSC, BCC, CSC</p> | <p>Range of 2,084 acres (43%) to 4,702 acres (66% of grassland and agriculture within 4-mile foraging range of 4 extant or historic nesting sites (3 in Habitat Reserve and 1 in Coto de Caza SOS)</p> | <p>Range of 203 acres to 428 acres of grassland and agriculture in Subarea 1 SOS</p> | <p>1 recent nesting colony in Trampas Canyon and range of 1,382 acres (23%) to 3,129 acres (39%) of grassland and agriculture within 4-mile foraging range of 4 extant or historic nesting sites (3 in Habitat Reserve and 1 in Coto de Caza SOS)</p> | <p>Landscape natural community and site-specific information</p> | <p>Landscape natural community and site-and species-specific based; hydrology, water quality and pesticide controls, urban-related predators, human disturbances of nesting colonies</p> | <p>Yes</p> |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the tricolored blackbird is warranted because four sites known to support breeding populations would be conserved in the Habitat Reserve: Middle Chiquita Canyon, Verdugo Canyon, Radio Tower Road and Lower Gabino Canyon. Adequate foraging habitat within a four-mile radius of these sites also would be conserved in the Habitat Reserve. Adequate foraging habitat also would be conserved for the <i>important population</i> in a <i>key location</i> in Coto de Caza. Only one known breeding site in Subarea 1 in PA 5 (Trampas Canyon) would be directly impacted by the proposed Covered Activities. In conjunction with the conservation and adaptive management, potential restoration activities identified in Chapter 13 also would provide significant benefits to the species. In addition, coverage is warranted because this species has a wide distribution beyond the Southern Subregion and the vast majority of the tricolored blackbird population occurs outside the subregion. Even under the assumption of 3,400 birds in the planning area based in the 1989 data and the 2001 estimate of 142,000 birds in California (Humble and Churchwell 2002), the local population accounts for at most about 2 percent of the statewide population. Finally, the tricolored blackbird and its habitat have already been substantially conserved in coastal southern California, having received regulatory coverage under the Western Riverside County MSHCP and the San Diego MSCP.</p> | | | | | | |
| <p>White-tailed Kite <i>Elanus leucurus</i> FSC, MNBMC, FP</p> | <p>4,537 acres (73%) of riparian and woodland and 26 historic nest sites (84%); range of 155 acres to 486 acres of potential foraging habitat within 0.5 mile of historic</p> | <p>929 acres (15%) of riparian and woodland and 3 historic nest sites; range of 452 acres to 480 acres of potential</p> | <p>750 acres (12%) of riparian and woodland and 2 historic nest sites; 0 acres to 251 acres of potential foraging habitat within 0.5 mile of historic nest site</p> | <p>Landscape natural community and site-specific information</p> | <p>Landscape natural community and site-and species-specific based; hydrology and morphology, non-native species controls, fire management, disease and predation on oak woodlands (i.e., acorns,</p> | <p>Yes</p> |

**PART I: TABLE ES-3
CONSERVATION AND IMPACT SUMMARY FOR PROPOSED COVERED SPECIES IN SUBAREA 1**

| Proposed Covered Species ¹ | Conserved | | Permanent Direct Impact | General Basis for Analysis of Coverage | Management & Monitoring Methods/Key Management Issues | Meets Federal & State Take Authorization Standards |
|---|--|---|--|--|---|--|
| | Habitat Reserve | Supplemental Open Space | | | | |
| | nest sites | foraging habitat within 0.5 mile of historic nest sites | | | seedlings, saplings); habitat restoration; raptor-related construction monitoring and preparation of BRCP per Ranch Plan GPA/ZC EIR MMs 4.9-26 and 4.9-30 | |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the white-tailed kite is warranted because the Habitat Reserve would protect and manage 84 percent of the historic nest sites and 73 percent of suitable nesting habitat, as well as adequate foraging habitat within 0.5 mile of historic nest sites. Combined with the three kite nest sites on NAS Starr Ranch and additional conservation of 929 acres of riparian and woodland, total conservation would be 94 percent of historic nest sites and 88 percent of nesting habitat. In conjunction with conservation and adaptive measures, the restoration activities identified in Chapter 13 also would provide significant benefits to the species. In addition, coverage is warranted because the species is widely distributed beyond the Southern Subregion and secure in its global range, as indicated by its G5S3 CNDDDB rank. Also, the white-tailed kite and its habitat have already been substantially conserved in coastal southern California, having received regulatory coverage under the Central/Coastal NCCP/HCP and Western Riverside County MSHCP. As discussed in Chapter 13, as a CDFG Fully Protected species, proposed regulatory coverage for the white-tailed kite and its habitat only extends to impacts on suitable nesting and foraging habitat and does not cover actual disturbances of white-tailed kites and their active nests.</p> | | | | | | |
| <p>Yellow Warbler <i>Dendroica petechia</i> CSC</p> | 3,119 acres (78%) of riparian and 26 nest sites (100%) | 576 acres (14%) of riparian | 186 acres (5%) of riparian | Landscape natural community and site-specific information, and <i>important populations in key locations</i> | Landscape natural community and site-and species-specific based; hydrology and geomorphology, non-native species, habitat restoration | Yes |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the yellow warbler is warranted because all 26 nest sites and 78 percent of suitable habitat would be conserved in the Habitat Reserve (see <i>Figure 175-M</i>). With additional habitat conservation in SOS, 93 percent of habitat would be conserved. All four of the identified <i>important populations</i> would be conserved and managed within the Habitat Reserve, as well as scattered locations in Chiquita Creek, Bell Canyon, Lucas Canyon, Gobernadora Creek, lower Cristianitos Creek, upper San Juan Creek and middle Arroyo Trabuco. In conjunction with conservation and adaptive management, the restoration activities identified in Chapter 13 would also provide significant benefits to the species. Finally, the yellow warbler and its habitat have already been substantially conserved in coastal southern California, having received regulatory coverage under the Western Riverside County MSHCP. Under the protections for vireo and willow flycatcher (Biological Opinion 1-6-95-F-02), any populations of yellow warbler in the Santa Margarita River and other riparian areas also would be conserved on MCB Camp Pendleton.</p> | | | | | | |
| <p>Yellow-breasted Chat <i>Icteria virens</i> CSC</p> | 3,119 acres (78%) of riparian and 99 nest sites (85%) | 576 acres (14%) of riparian | 186 acres (5%) of riparian and 14 nest sites (12%) | Landscape natural community and site-specific information, and <i>important populations in key locations</i> | Landscape natural community and site-and species-specific based; hydrology and geomorphology, non-native species, habitat restoration | Yes |

**PART I: TABLE ES-3
CONSERVATION AND IMPACT SUMMARY FOR PROPOSED COVERED SPECIES IN SUBAREA 1**

| Proposed Covered Species ¹ | Conserved | | Permanent Direct Impact | General Basis for Analysis of Coverage | Management & Monitoring Methods/Key Management Issues | Meets Federal & State Take Authorization Standards |
|--|--|-------------------------|---|---|---|--|
| | Habitat Reserve | Supplemental Open Space | | | | |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the yellow-breasted chat is warranted because 85 percent of nest sites and 78 percent of suitable habitat would be conserved in the Habitat Reserve (<i>Figure 175-M</i>), and with additional conservation of habitat in SOS, 93 percent of habitat would be conserved. All four of the identified <i>important populations</i> would be conserved and managed within the Habitat Reserve, as well as scattered locations in middle Chiquita, Bell Canyon, Verdugo Canyon and upper San Juan Creek. In conjunction with the conservation and adaptive management measures, the restoration activities identified in Chapter 13 also would provide significant benefits to the species. In addition, coverage is warranted because the species has a wide-spread distribution beyond the Southern Subregion, albeit a restricted range in California, as indicated by its G5S3 CNDDDB rank. Finally, the yellow-breasted chat and its habitat have already been substantially conserved in coastal southern California, having received regulatory coverage under the Western Riverside County MSHCP and the San Diego MHCP. Under the protections for vireo and willow flycatcher (Biological Opinion 1-6-95-F-02), populations of chat in the Santa Margarita River and other riparian areas also would be conserved on MCB Camp Pendleton.</p> | | | | | | |
| <p>Arroyo Toad <i>Bufo microscaphus</i> FE, CSC</p> | <p>100% of breeding locations; 1,322 acres (75%) of suitable foraging/estivation habitat adjacent to breeding locations in San Juan, Cristianitos/Gabino and Talega creeks</p> | <p>NA</p> | <p>No direct impacts to breeding locations except for 0.8 acre for placement of bridge piers in San Juan and Lower Cristianitos creeks; 442 acres (25%) of suitable foraging/estivation habitat adjacent to breeding locations in San Juan, Cristianitos/Gabino and Talega creeks</p> | <p>Landscape natural community, habitat connectivity, habitat contiguity, site-specific information, <i>major</i> and <i>important populations in key locations</i></p> | <p>Landscape natural community and site-and species-specific based; hydrology and geomorphology, water quality, non-native species, human disturbances, habitat restoration</p> | <p>Yes</p> |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the arroyo toad is warranted because all breeding populations in the Subarea would be conserved in the Habitat Reserve. Including the “over-stated” impacts for PA 4 (see Chapter 13 for explanation of “over-stated” impacts), at least 63 percent of potential upland foraging and estivation habitats adjacent to the portion of the San Juan Creek <i>major population</i> on RMV would be conserved. Post-construction, the available habitat within the 1,320-foot (400 m) wide San Juan Creek corridor separating PAs 3 and 4 will be protected because permanent impacts in these areas will be limited to trails and infrastructure; no residential/commercial development is allowed in this protected area. All of the potential upland foraging and estivation habitat adjacent to the San Juan <i>major population/key location</i> and the <i>important population/key location</i> in lower Bell Canyon in Caspers Wilderness Park would be conserved. In the San Mateo Watershed, 87 percent of the potential upland habitat adjacent to the Talega Canyon <i>major population/key location</i> and 97 percent of the upland habitat adjacent to the Lower Cristianitos Creek/Lower Gabino Canyon <i>important population/location</i> would be conserved. All areas providing “in-stream” connectivity between these populations would be conserved. Habitat to mediate potential overland dispersal events between the San Juan and San Mateo watersheds would be conserved. Conservation of the arroyo toad in Subarea 1, including the management and restoration activities described in Chapter 13, would provide for recovery of the species in this area and substantially contribute to its recovery rangewide. Finally, the arroyo toad and its habitat have already been conserved in substantial areas of coastal southern California, having received regulatory coverage under the Western Riverside County MSHCP and the Central/Coastal NCCP/HCP (one recently discovered extant population occurs in Silverado Canyon, GLA 2005). The arroyo toad also is conserved on MCB Camp Pendleton (Biological Opinion 1-6-95-F-02).</p> | | | | | | |

**PART I: TABLE ES-3
CONSERVATION AND IMPACT SUMMARY FOR PROPOSED COVERED SPECIES IN SUBAREA 1**

| Proposed Covered Species ¹ | Conserved | | Permanent Direct Impact | General Basis for Analysis of Coverage | Management & Monitoring Methods/Key Management Issues | Meets Federal & State Take Authorization Standards |
|---|--|---|--|--|---|--|
| | Habitat Reserve | Supplemental Open Space | | | | |
| California Glossy Snake <i>Arizona elegans occidentalis</i> | 20,989 acres (74%) of coastal sage scrub, chaparral, grassland, riparian, stream courses, woodland and forest on sandy and/or loamy soils and 4 sites (100%) | 2,300 acres (8%) of coastal sage scrub, chaparral, grassland, riparian, stream courses, woodland and forest on sandy and/or loamy soils | 5,115 acres (18%) of coastal sage scrub, chaparral, grassland, riparian, stream courses, woodland and forest on sandy and/or loamy soils | Landscape natural community, habitat blocks, habitat connectivity, habitat contiguity, and site-specific information | Landscape natural community-based plus specific edge-effect management (e.g., urban-related predators, prohibition on collecting, Argentine ant controls) | Yes |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the California glossy snake is warranted because all four known locations, 82 percent of suitable habitat, all major drainages supporting sandy deposits and other potentially important habitat linkages in Subarea 1 would be conserved the Habitat Reserve and SOS. The seven large habitat blocks comprise 28,489 acres of conserved habitat for the glossy snake (note: the habitat block analysis does not select for soil types has a specific habitat factor), thus the large majority of conserved habitat is relatively unfragmented. In addition, coverage is warranted because the species is widely distributed beyond the Southern Subregion. The restoration activities identified in Chapter 13 also would provide additional benefits to the species.</p> | | | | | | |
| Coast Patch-nosed Snake <i>Salvadora hexalepis virgulata</i> CSC | 23,111 acres (71%) of coastal sage scrub, chaparral, and grassland and 1 site (33%) | 3,461 acres (11%) of coastal sage scrub, chaparral, and grassland and 1 site (33%) | 6,254 acres (19%) of coastal sage scrub, chaparral, and grassland and 1 site (33%) | Landscape natural community, habitat blocks, habitat connectivity, habitat contiguity, and site-specific information | Landscape natural community-based plus specific edge-effect management (e.g., urban-related predators, prohibition on collecting, Argentine ant controls) | Yes |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the coast patch-nosed snake is warranted within Subarea 1 because one of three occurrence locations, 71 percent of suitable habitat, and potentially important habitat linkages would be conserved and managed in the Habitat Reserve. A second documented location is conserved in SOS on NAS Starr Ranch. Additional habitat conservation in SOS would bring the total habitat conservation to 81 percent. The seven large habitat blocks comprise about 91 percent of conserved suitable habitat for the coast patch-nosed snake; thus the large majority of conserved habitat is relatively unfragmented. In addition, coverage is warranted because, while the species is now considered rare to endangered in southern California, it is still widely distributed in southern California beyond the Southern Subregion and its range-wide viability is not dependent on conservation activities in the project area. The restoration activities identified in Chapter 13 also would provide additional benefits to the species.</p> | | | | | | |
| Northern Red-diamond Rattlesnake <i>Crotalus ruber ruber</i> CSC | 23,111 acres (71%) of coastal sage scrub, chaparral, and grassland and 9 sites (56%) | 3,461 acres (11%) of coastal sage scrub, chaparral, and grassland 1 site | 6,254 acres (19%) of coastal sage scrub, chaparral, and grassland and 6 sites (19%) | Landscape natural community, habitat blocks, habitat connectivity, habitat contiguity, and site-specific information | Landscape natural community-based plus specific edge- and road-effects management (e.g., urban-related predators, | Yes |

**PART I: TABLE ES-3
CONSERVATION AND IMPACT SUMMARY FOR PROPOSED COVERED SPECIES IN SUBAREA 1**

| Proposed Covered Species ¹ | Conserved | | Permanent Direct Impact | General Basis for Analysis of Coverage | Management & Monitoring Methods/Key Management Issues | Meets Federal & State Take Authorization Standards |
|--|--|--|--|--|---|--|
| | Habitat Reserve | Supplemental Open Space | | | | |
| | | (6%) | | | human harassment, roadkill hotspots) | |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the northern red-diamond rattlesnake is warranted because 56 percent of locations and 71 percent of suitable habitat would be conserved in the Habitat Reserve. In combination with the additional location and 11 percent of habitat in SOS, 63 percent of locations and 81 percent of suitable habitat would be conserved. The seven large habitat blocks comprise 91 percent of conserved suitable habitat for the red-diamond rattlesnake, thus the large majority of conserved habitat is relatively unfragmented. In addition, coverage is warranted because, although it appears to be becoming increasingly rare, the subspecies is still widely distributed in southern California and Baja California, the latter of which is the major part of the subspecies' range beyond the Southern Subregion (<i>i.e.</i>, Global T4 rank), and its rangewide viability does not depend on the proposed Covered Activities. The Habitat Reserve also would include areas within the western portion of the planning area (<i>e.g.</i>, Arroyo Trabuco, Chiquita Ridge, Radio Tower Road mesa) that were considered by the Science Advisors to be important for the species. Finally, the northern red-diamond rattlesnake and its habitat have already been substantially conserved in southern California, having received regulatory coverage under the Central/Coastal NCCP/HCP and Western Riverside County MSHCP.</p> | | | | | | |
| <p>Orange-throated Whiptail <i>Aspidoscelis hyperythra beldingi</i> CSC</p> | 18,803 acres (71%) of coastal sage scrub, chaparral, woodland and forest and 115 sites (68%) | 2,860 acres (11%) of coastal sage scrub, chaparral, woodland and forest and 6 sites (4%) | 4,149 acres (16%) of coastal sage scrub, chaparral, woodland and forest and 48 sites (28%) | Landscape natural community, habitat blocks, habitat connectivity, habitat contiguity, site-specific information and <i>important populations in key locations</i> | Landscape natural community, site- and species-specific based plus specific edge-effect management (<i>e.g.</i> , urban-related predators, Argentine ant controls) | Yes |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the orange-throated whiptail is warranted because 68 percent of locations and 73 percent of suitable habitat would be conserved in the Habitat Reserve. An additional 4 percent of locations and 11 percent of habitat is in SOS, bringing the total conservation of the orange-throated whiptail to 72 percent of locations and 84 percent of habitat. Two of the three <i>important locations in key locations</i> would be conserved and managed, although the extension of Cristianitos Road/"F" Street will result in potential fragmentation of the Chiquita Canyon/Wagon Wheel Ridgeline and Chiquadora Ridge <i>important populations/key locations</i>. A wildlife culvert under Cristianitos Road/"F" Street to maintain the Chiquita Canyon/Wagon Wheel population may be needed, as discussed in the <i>Chapter 8</i> consistency analysis. A bridge spanning a portion of Chiquadora Ridge to maintain connection of the Chiquadora Ridge population will be constructed. The seven large habitat blocks comprise 93 percent of conserved suitable habitat for the orange-throated whiptail and 84 percent of the conserved whiptail locations are in the large habitat blocks, indicating that most of the conserved whiptail habitat is relatively unfragmented. Furthermore, although the orange-throated whiptail is considered endangered based on its CNDDDB rank, coverage is warranted because the species is still relatively common throughout its geographic distribution in southern California and its viability rangewide does not depend on the proposed Covered Activities. The restoration activities identified in Chapter 13 also would provide additional benefits to the species. Finally, the orange-throated whiptail and its habitat have already been substantially conserved in coastal southern California, having received regulatory coverage under the Western Riverside County MSHCP, the Central/Coastal NCCP/HCP, and the San Diego MSCP and MHCP.</p> | | | | | | |
| <p>Red Coachwhip <i>Masticophis flagellum piceus</i></p> | 23,111 acres (71%) of coastal sage scrub, chaparral, and grassland and 2 sites (67%) | 3,461 acres (11%) of coastal sage scrub, chaparral, and grassland | 6,254 acres (19%) of coastal sage scrub, chaparral, and grassland and 1 site (33%) | Landscape natural community, habitat blocks, habitat connectivity, and habitat contiguity | Landscape natural community-based plus specific edge-effect management (<i>e.g.</i> , urban-related predators, prohibition on collecting, Argentine ant controls) | Yes |

**PART I: TABLE ES-3
CONSERVATION AND IMPACT SUMMARY FOR PROPOSED COVERED SPECIES IN SUBAREA 1**

| Proposed Covered Species ¹ | Conserved | | Permanent Direct Impact | General Basis for Analysis of Coverage | Management & Monitoring Methods/Key Management Issues | Meets Federal & State Take Authorization Standards |
|--|---|---|--|---|---|--|
| | Habitat Reserve | Supplemental Open Space | | | | |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the red coachwhip snake is warranted because two of three occurrence locations, 71 percent of suitable habitat, and potentially important habitat linkages would be conserved and managed in the Habitat Reserve. Additional habitat conservation in SOS would bring the total habitat conservation to 81 percent. The seven large habitat blocks comprise about 91 percent of conserved suitable habitat for the red coachwhip, thus the large majority of conserved habitat is relatively unfragmented. In addition, coverage is warranted because the species is still relatively common in its range in the southwest U.S. beyond the Southern Subregion, it is not currently a federal or state Special Status species, and its viability rangewide does not depend on the proposed Covered Activities. The restoration activities identified in Chapter 13 also would provide additional benefits to the species.</p> | | | | | | |
| <p>“San Diego” Coast Horned Lizard <i>Phrynosoma coronatum</i>; blainvillei population FSC, CSC</p> | 17,385 acres (74%) of coastal sage scrub and chaparral and 36 sites (75%) | 2,507 acres (11%) of coastal sage scrub and chaparral | 3,585 acres (15%) of coastal sage scrub and chaparral and 12 sites (25%) | Landscape natural community, habitat blocks, habitat connectivity, habitat contiguity, site-specific information, and <i>important populations in key locations</i> | Landscape natural community, site- and species-specific based plus specific edge-effect management (e.g., urban-related predators, prohibition on collecting, Argentine ant controls) | Yes |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the San Diego horned lizard is warranted because 75 percent of locations and 74 percent of suitable habitat would be conserved in the Habitat Reserve. An additional 11 percent of habitat is in SOS, bringing total conservation to 75 percent of locations and 85 percent of habitat. Furthermore, 13 of 15 locations in the Chiquita/Wagon Wheel Ridgeline <i>important population/key location</i> would be conserved. Nine of 14 locations in the Cristianitos <i>important population/key location</i> would be conserved; the other five locations are in PA 6 targeted for potential orchards. The seven large habitat blocks comprise 18,684 acres (94 percent) of the 19,892 of conserved suitable habitat for the horned lizard. Furthermore, although it is considered restricted/rare to endangered in California according to its CNDDDB state rank, coverage is warranted because the species is widely distributed in southern California beyond the Southern Subregion and its viability rangewide does not depend on the proposed Covered Activities. The restoration activities identified in Chapter 13 also would provide additional benefits to the species. Finally, substantial conservation of the horned lizard and its habitat has occurred in southern California, having regulatory coverage under the Coastal/Central NCCP/HCP, the Western Riverside County MSHCP and the San Diego MSCP.</p> | | | | | | |
| <p>Southwestern Pond Turtle <i>Emys marmorata pallida</i> FSC, CSC</p> | 6 breeding sites (75%) and upland buffers of at least 300 ft (7-8 acres) from adjacent development to support life stages | NA | 2 breeding sites (25%) | Site-specific breeding sites, <i>important populations</i> , uplands adjacent to breeding sites, habitat linkages and habitat contiguity | Landscape natural community, site- and species-specific based plus specific indirect and edge-effect management (e.g., water quality, non-native and urban-related predators, prohibition on collecting, signage) | Yes |

**PART I: TABLE ES-3
CONSERVATION AND IMPACT SUMMARY FOR PROPOSED COVERED SPECIES IN SUBAREA 1**

| Proposed Covered Species ¹ | Conserved | | Permanent Direct Impact | General Basis for Analysis of Coverage | Management & Monitoring Methods/Key Management Issues | Meets Federal & State Take Authorization Standards |
|--|--|--|--|--|--|--|
| | Habitat Reserve | Supplemental Open Space | | | | |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the southwestern pond turtle is warranted because six <i>important population/key location</i> breeding sites and the adjacent upland nesting and over-wintering areas would be conserved in the Habitat Reserve (see <i>Figure 176-M</i>). An upland habitat linkage connecting the San Juan Creek and San Mateo Creek watersheds would be conserved to allow for long-distance dispersal movements between breeding locales. In conjunction with conservation and management of breeding locations and associated upland nesting habitat, the restoration activities identified in Chapter 13 would provide significant additional benefits to the species. In addition, although the southwestern pond turtle is considered endangered according to its CNDDDB rank, coverage is warranted because it is widely distributed in central and southern California beyond the Southern Subregion and the viability of the pond turtle does not depend on conservation in the planning area. Finally, substantial conservation of this species has already occurred in southern California, having regulatory coverage under the Western Riverside County MSHCP and the San Diego MSCP and MHCP.</p> | | | | | | |
| <p>Western Spadefoot Toad <i>Spea hammondi</i> FSC, CSC</p> | <p>19 breeding sites (79%) and upland buffers of at least 650 ft (30 acres) to support life stages for all sites except one next to PA 4 (see Chapter 13 text)</p> | <p>1 breeding site (4%) and upland buffer of at least 650 ft (30 acres) to support life stages</p> | <p>4 breeding sites (17%)</p> | <p>Site-specific breeding sites, <i>important populations</i>, uplands adjacent to breeding sites, habitat linkages and habitat contiguity</p> | <p>Landscape natural community, site- and species-specific based plus specific indirect and edge-effect management (e.g., water quality, non-native and urban-related predators, human access)</p> | <p>Yes</p> |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the western spadefoot toad is warranted because 83 percent of the documented breeding locations would be conserved in the Habitat Reserve and SOS. Four of the five <i>important populations</i> (Chiquita Ridge, Radio Tower Road, Upper Cristianitos and Lower Gabino Creek) would be 100 percent conserved, and three of the five locations in the San Juan Creek <i>important population</i> would be conserved in the Habitat Reserve. Adequate upland habitat around all these breeding sites would be conserved and managed. Conservation of these locations and associated upland habitat, in conjunction with the aforementioned management measures, would provide for the conservation of the species. Although the western spadefoot toad is considered restricted/rare in California based on its CNDDDB rank, coverage is warranted because it is widespread in southern California beyond the Southern Subregion and its viability range wide does not depend on conservation actions in the planning area. Finally, substantial conservation of this species has already occurred in southern California, having regulatory received coverage under the Central/Coastal NCCP/HCP, Western Riverside County MSHCP and the San Diego MHCP.</p> | | | | | | |
| <p>Arroyo Chub <i>Gila orcutti</i> FSC, CSC</p> | <p>100% of occupied habitat in San Juan and Arroyo Trabuco creeks</p> | <p>NA</p> | <p>0.6 acre for bridge piers in San Juan Creek, temporary direct construction impacts addressed by SAMP USACE Permit Special Condition II.9 requiring surveys within 1,000 ft downstream of each PA prior to construction to address turbidity</p> | <p>Landscape natural community and site-specific based, long term habitat quality (hydrology, geomorphology and water quality)</p> | <p>Landscape natural community and site- and species-specific based, long term habitat quality (hydrology, geomorphology and water quality), non-native predators controls, non-native plant controls, habitat restoration</p> | <p>Yes</p> |

**PART I: TABLE ES-3
CONSERVATION AND IMPACT SUMMARY FOR PROPOSED COVERED SPECIES IN SUBAREA 1**

| Proposed Covered Species ¹ | Conserved | | Permanent Direct Impact | General Basis for Analysis of Coverage | Management & Monitoring Methods/Key Management Issues | Meets Federal & State Take Authorization Standards |
|---|---|-------------------------|---|---|---|--|
| | Habitat Reserve | Supplemental Open Space | | | | |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the arroyo chub is warranted because all occupied areas in the Subarea would be conserved in the Habitat Reserve and managed to avoid and minimize potential direct and indirect effects to hydrologic and geomorphic processes and water quality. Invasive species controls and habitat restoration in San Juan, Gobernadora and Arroyo Trabuco creeks would benefit this species by increasing the available suitable habitat and water to support spawning. Also, the arroyo chub has received substantial conservation in southern California, having regulatory coverage under the Western Riverside County MSHCP and San Diego MSCP.</p> | | | | | | |
| Partially-armored Threespine Stickleback <i>Gasterosteus aculeatus ssp. microcephalus</i> | 100% of occupied habitat in San Juan and Arroyo Trabuco creeks | NA | 0.6 acre for bridge piers in San Juan Creek, temporary direct construction impacts addressed by SAMP USACE Permit Special Condition II.9 requiring surveys within 1,000 ft downstream of each PA prior to construction to address turbidity | Landscape natural community and site-specific based, long term habitat quality (hydrology, geomorphology and water quality) | Landscape natural community and site- and species-specific based, long term habitat quality (hydrology, geomorphology and water quality), non-native predators controls, non-native plant controls, habitat restoration | Yes |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the partially-armored threespine stickleback is warranted because all occupied areas in the Subarea would be conserved in the Habitat Reserve and managed to avoid and minimize potential direct and indirect effects to hydrologic and geomorphic processes and water quality. Invasive species controls and habitat restoration in San Juan, Gobernadora and Arroyo Trabuco creeks would benefit this species by increasing the available suitable habitat and water to support spawning.</p> | | | | | | |
| Riverside Fairy Shrimp <i>Streptocephalus woottoni</i> FE | 3 pools (100%) supporting species; assumes avoidance of occupied pool in PA 5 per Ranch Plan GPA/ZC EIR MM 4.9-35 | NA | No impacts | Protection and management of vernal pools supporting species | Site and species-specific based, including hydrology, non-native species, cattle-related impacts, and public access | Yes |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the Riverside fairy shrimp is warranted because all three vernal pools (2, 4 and 7) supporting the shrimp would be conserved and managed in the Habitat Reserve. In addition, substantial conservation of the Riverside fairy shrimp in southern California has already occurred. It is provided regulatory coverage by the Central/Coastal NCCP/HCP, the Western Riverside County MSHCP, and the San Diego County MSCP and MHCP, and, furthermore, one of the largest vernal pool complexes supporting Riverside fairy shrimp is located on MCB Camp Pendleton. Conservation of the Riverside fairy shrimp in Subarea 1 would provide for recovery of the species in the permit area and contribute to its recovery rangewide.</p> | | | | | | |
| San Diego Fairy Shrimp <i>Branchinecta sandiegonensis</i> FE | 5 pools (100%) supporting species; assumes avoidance of | NA | No impacts | Protection and management of vernal pools supporting species | Site and species-specific based, including hydrology, non-native species, cattle- | Yes |

**PART I: TABLE ES-3
CONSERVATION AND IMPACT SUMMARY FOR PROPOSED COVERED SPECIES IN SUBAREA 1**

| Proposed Covered Species ¹ | Conserved | | Permanent Direct Impact | General Basis for Analysis of Coverage | Management & Monitoring Methods/Key Management Issues | Meets Federal & State Take Authorization Standards |
|---|--|--|--|---|--|--|
| | Habitat Reserve | Supplemental Open Space | | | | |
| | occupied pool in PA 5 per Ranch Plan GPA/ZC EIR MM 4.9-35 | | | | related impacts, and public access | |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the San Diego fairy shrimp is warranted because all five vernal pools (1, 2, 4, 6 and 7) supporting the shrimp would be conserved and managed in the Habitat Reserve. In addition, substantial conservation of the San Diego fairy shrimp in southern California has already occurred. It is provided regulatory coverage by the Central/Coastal NCCP/HCP and the San Diego County and substantial habitat occurs on MCB Camp Pendleton MSCP. (San Diego fairy shrimp is not located in the Western Riverside County MSHCP area.) Conservation of the San Diego fairy shrimp in Subarea 1 would provide for recovery of the species in the permit area and contribute to its recovery rangewide.</p> | | | | | | |
| <p>Chaparral Beargrass <i>Nolina cismontana</i> List 1B.2</p> | 5 of 6 locations/individuals | NA | 1 of 6 locations/individuals | Site-specific basis and <i>important population in key location</i> | Landscape natural community and site- and species-specific based, including implementation of Wildland Fire Management Plan and population monitoring | Yes |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for the chaparral beargrass is warranted because at least five of six of the locations in the Subarea would be conserved and managed in the Habitat Reserve.</p> | | | | | | |
| <p>Coast Live Oak <i>Quercus agrifolia</i> Addressed by PRC Section 21083.4</p> | 2,572 acres total (69%); 1,418 acres (61%) of oak woodland and forest and 1,155 acres (84%) of oak riparian forest | 517 acres total (14%); 353 acres (15%) of oak woodland and forest and 164 acres (12%) of oak riparian forest | 629 acres total (17%); 564 acres (24%) of oak woodland and forest and 65 acres (5%) of oak riparian forest | Vegetation community based; coast live oak riparian forest, woodland and upland forest combined | Vegetation community and focal-species (e.g., acorn woodpecker) based hydrology and morphology, non-native species controls, fire management, disease and predation on oak woodlands (i.e., acorns, seedlings, saplings); habitat restoration; | Yes |
| <p>Rationale for Identifying Species as Covered: Regulatory coverage for coast live oak is warranted because 69 percent of existing oak-dominated vegetation communities would be conserved in the Habitat Reserve and an additional 14 percent in Subarea 1 SOS, resulting in total conservation of 83 percent. The largest areas of contiguous coast live oak woodlands in the eastern portion of the study area in Caspers Wilderness Park and the hills west of Bell Canyon and in O'Neill Regional Park, as well as coast live oak riparian forest in O'Neill Park, Thomas F. Riley Wilderness Park, NAS Starr Ranch and Caspers Wilderness Park would be in the Habitat Reserve and SOS. In addition, the Habitat Reserve would create a large, biologically diverse and well-connected Habitat Reserve that will function effectively over the long term to maintain, and where feasible, enhance functions and values of both the upland and riparian oak communities. The HRMP will guide long-term management of oak communities and their supporting abiotic hydrologic and geomorphic processes within the Habitat Reserve, including, but not limited to, habitat restoration, invasive species control, grazing management and wildland fire management.</p> | | | | | | |

**PART I: TABLE ES-3
CONSERVATION AND IMPACT SUMMARY FOR PROPOSED COVERED SPECIES IN SUBAREA 1**

| Proposed Covered Species ¹ | Conserved | | Permanent Direct Impact | General Basis for Analysis of Coverage | Management & Monitoring Methods/Key Management Issues | Meets Federal & State Take Authorization Standards |
|--|--|--|---|---|---|--|
| | Habitat Reserve | Supplemental Open Space | | | | |
| Coulter's Saltbush <i>Atriplex coulteri</i> List 1B.2 | 29 locations (88%) and 2,475 individuals (90%) | NA | 4 locations (12%) and 277 individuals (10%) | Locations and individuals and <i>major and important populations in key locations</i> | Site- and species-specific based, including non-native species, soil/water relations, soil impacts, cattle-related impacts and implementation of salvage/translocation/propagation plan | Yes |
| Rationale for Identifying Species as Covered: Regulatory coverage for Coulter's saltbush is warranted because 88 percent of the locations and 90 percent of the individuals would be conserved and managed in the Habitat Reserve. All <i>major/important populations in key locations</i> would be conserved. This conservation of Coulter's saltbush would substantially contribute to and provide for the conservation of the species rangewide. | | | | | | |
| Many-stemmed Dudleya <i>Dudleya multicaulis</i> List 1B.2 | 236 locations (61%) and 44,204 individuals (69%) | 1 small population (no count) on NAS Starr Ranch | 149 locations (39%) and 19,642 individuals (31%) in Subarea 1 and 2 locations and 395 individuals in Subarea 4 due to road construction | Locations and individuals and <i>major and important populations in key locations</i> | Site- and species-specific based, including non-native species, potential cattle-related impacts, and implementation of salvage/translocation/propagation plan | Yes |
| Rationale for Identifying Species as Covered: Regulatory coverage for many-stemmed dudleya is warranted because even without substantial avoidance of the Cristianitos Canyon <i>major population/key location</i> , approximately 229 locations (59 percent) and almost 40,000 counted/estimated individuals (63 percent) would be conserved and managed in the Habitat Reserve, including 65 percent of locations and 70 percent of individuals in <i>major populations/key locations</i> . The by far largest <i>major population/key location</i> in the planning area in Cristianitos Canyon would be substantially conserved, with 127 locations (84 percent) and 24,633 individuals (75 percent) in the Habitat Reserve (without assuming additional conservation in the 431 acres in PAs 6 and 7 targeted for 50 acres of orchard). This conservation of many-stemmed dudleya would substantially contribute to and provide for the conservation of the species rangewide. In addition, many-stemmed dudleya has been substantially conserved in western Riverside County, having received regulatory coverage under the MSHCP, and the Central/Coastal NCCP/HCP. | | | | | | |
| California Scrub Oak <i>Quercus berberidifolia</i> Addressed by PRC Section 21083.4 | 2,233 acres total (80%) of scrub oak chaparral and scrub oak-sagebrush | 265 acres (10%) of scrub oak chaparral and scrub oak-sagebrush | 284 acres (10%) of scrub oak chaparral | Vegetation community based; coast live oak riparian forest, woodland and upland forest combined | Vegetation community based, fire management | Yes |
| Rationale for Identifying Species as Covered: Regulatory coverage for California scrub oak is warranted because 90 percent of existing scrub oak chaparral and scrub oak-sagebrush would be conserved and managed in the Habitat Reserve. The largest areas of contiguous scrub oak chaparral in the eastern portion of Subarea 1 in Caspers Wilderness Park and RMV lands would be in the Habitat Reserve. Also, the CNF supports about 48 percent of the scrub oak chaparral and sagebrush in the NCCP study area. The Habitat Reserve, in conjunction with scrub oak in SOS and the CNF would create a large, biologically diverse and well-connected Habitat Reserve and open space system that will function effectively over the long term to maintain scrub oak vegetation communities. The HRMP will guide long-term management of the scrub oak communities within the Habitat Reserve, including, but not limited to, wildland fire management, habitat restoration, and invasive species control. | | | | | | |

**PART I: TABLE ES-3
CONSERVATION AND IMPACT SUMMARY FOR PROPOSED COVERED SPECIES IN SUBAREA 1**

| Proposed Covered Species ¹ | Conserved | | Permanent Direct Impact | General Basis for Analysis of Coverage | Management & Monitoring Methods/Key Management Issues | Meets Federal & State Take Authorization Standards |
|---|---|-------------------------|---|--|--|--|
| | Habitat Reserve | Supplemental Open Space | | | | |
| Southern Tarplant <i>Centromadia parryi</i> var. <i>australis</i> List 1B.1 | 30 locations (81%) and 129,984 individuals (91%) | NA | 7 locations (19%) and 12,587 individuals (9%) | Locations and individuals and <i>major and important populations in key locations</i> | Site- and species-specific based, including non-native species, soil/water relations, and implementation of salvage/translocation/propagation plan | Yes |
| Rationale for Identifying Species as Covered: Regulatory coverage for southern tarplant is warranted because 81 percent of the locations and 91 percent of the individuals would be conserved and managed in the Habitat Reserve. All <i>major/important populations in key locations</i> would be conserved. This conservation of southern tarplant would substantially contribute to and provide for the conservation of the species rangewide. | | | | | | |
| Thread-leaved Brodiaea <i>Brodiaea filifolia</i> FT, SE, List 1B.1 | 20 locations (61%) and 9,248 individuals (98%); assumes avoidance of Chiquadora <i>major population/key location</i> supporting 2,000 individuals per SAMP USACE Permit Special Condition I.A.3 and avoidance of PA 8 population per GPA/ZC EIR MM 4.9-20 | NA | 13 locations (39%) and 147 individuals (2%) | Locations and individuals and <i>major and important populations in key locations</i> ; habitat connectivity and contiguity to support pollinators | Site- and species-specific based, including non-native species, cattle-related impacts, and implementation of salvage/translocation/propagation plan | Yes |
| Rationale for Identifying Species as Covered: Regulatory coverage for thread-leaved brodiaea is warranted because, with avoidance of the Chiquadora Ridge <i>major population/key location</i> and conservation of the Cristianitos Canyon/Lower Gabino Canyon <i>major population/key location</i> , more than 8,100 individuals (86 percent) would be conserved in the Habitat Reserve. With conservation of the <i>important populations</i> , about 9,248 individuals (98 percent) and 20 locations (61 percent) would be conserved in the Habitat Reserve (<i>Figure 173-M</i>). Adequate habitat to support pollinators and dispersal also would be conserved and the conserved populations would be adaptively managed. Furthermore, substantial conservation of this species already has occurred in southern California. It is provided regulatory coverage by the western Riverside County MSHCP and San Diego MSCP. Conservation of the thread-leaved brodiaea in the permit area would provide for recovery of the species in the area and substantially contribute to its recovery rangewide. | | | | | | |

¹NCCP/MSAA/HCP planning species are shown in **boldface** print.

Federal & State Status

- BCC U.S. Fish and Wildlife Service Bird of Conservation Concern
- FE Federally Listed Endangered Species
- FSC Federal Species of Concern

FP State Fully Protected
FT Federally Listed Threatened Species
MNBMC U.S. Fish and Wildlife Service Migratory Nongame Birds of Management Concern
CSC California Species of Special Concern
SE State Listed Endangered
ST State Listed Threatened

CNPS (California Native Plant Society)

Lists

1B: Rare or Endangered in California and Elsewhere