

CALIFORNIA DEPARTMENT OF FISH AND GAME

**FINDINGS OF FACT
under the
CALIFORNIA ENVIRONMENTAL QUALITY ACT
and the
NATURAL COMMUNITY CONSERVATION PLANNING ACT**

AND

**NATURAL COMMUNITY CONSERVATION PLAN
PERMIT**

for the

**Western Riverside County
Multiple Species Habitat Conservation Plan**

June 2004

NCCP PERMIT
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1.0 INTRODUCTION

This document sets forth findings and authorizations of the California Department of Fish and Game (“CDFG”) for the Western Riverside County Multiple Species Habitat Conservation Plan (“MSHCP”). CDFG is acting as a responsible agency under the California Environmental Quality Act, Public Resources Code Section 21000 et seq. (“CEQA”), in approving the MSHCP as provided for in the Natural Community Conservation Planning Act, Fish and Game Code Sections 2800-2835¹ (“NCCPA”). Unless otherwise noted, capitalized terms have the same definitions as in the MSHCP.

1.1. The Natural Community Conservation Planning Act

The NCCPA provides for the preparation and implementation of large-scale natural resource conservation plans as an alternative to reviewing impacts of urban development on a project-by-project and species-by-species basis. A natural community conservation plan (“NCCP”) must provide for “the protection of habitat, natural communities, and species diversity on a landscape or ecosystem level” (§2820, subd. (a)(3)) while allowing “compatible and appropriate economic development, growth, and other human uses” (§2805, subd. (h)). When it approves an NCCP, CDFG may authorize the “take” of species whose conservation and management is provided for in the NCCPA (§2835), including species listed as endangered, threatened, or candidate under the California Endangered Species Act, Sections 2050-2116 (“CESA”).

The NCCPA was originally enacted in 1991;² was amended in 1993,³ 1994,⁴ 1996⁵ and 2000.⁶ The NCCPA was substantially revised in 2002 by Senate Bill 107,⁷ which codified a number of CDFG’s administrative standards and practices for NCCP development and implementation and added new requirements. With the revisions, many of the substantive standards and mandatory elements for an NCCP formerly contained in guidelines prepared by CDFG are now found in Section 2820. The revised NCCPA also “grandfathered” a number of NCCPs that were under development prior to enactment of the 2002 revisions. For an NCCP that falls under one of the grandfathering provisions in Section 2830, like the Western Riverside MSHCP, CDFG must evaluate the adequacy of NCCP by reference to earlier versions of the NCCPA and to the guidelines issued under those earlier statutes (See Finding 4.1 of this document for further details). For that reason, a number of the section references below to the NCCPA will be to

¹ All further section references are to the Fish and Game Code, unless otherwise indicated.

² Statutes 1991, chapter 765, section 2, page 3424 (A.B. 2172).

³ Statutes 1993, chapter 708, section 1, page 4034 (S.B. 755).

⁴ Statutes 1994, chapter 220, section 1, page 1778 (S.B. 1352).

⁵ Statutes 1996, chapter 593, sections 1 and 2, page 2702 (A.B. 3446).

⁶ Statutes 2000, chapter 87, sections 1-3, page 1207 (S.B. 1679).

⁷ Statutes 2002, chapter 4, sections 1 and 2, page 81 (S.B. 107). Minor housekeeping changes were subsequently enacted as part of S.B. 2052 (Stats. 2002, ch. 133, §§ 1 and 2, page 568).

former sections that, although replaced by new provisions in 2002, still set forth the relevant standards for grandfathered NCCPs under existing law.⁸

1.2. Western Riverside County Multiple Species Habitat Conservation Plan

The Western Riverside County Multiple Species Habitat Conservation Plan/NCCP Plan (Volumes I-IV) (“**MSHCP**” or “**Plan**”), is a comprehensive habitat conservation planning program that addresses multiple species’ habitat needs and the preservation of native vegetation communities for a 1.26 million acre area in western Riverside County. It is a regional habitat plan intended to contribute to preservation of regional biodiversity through coordination with other habitat conservation planning efforts throughout southern California. The MSHCP allows local jurisdictions to maintain land use control and development flexibility by planning and implementing a regional preserve system that can meet future public and private project mitigation needs. The Plan is also designed to streamline and coordinate existing procedures for review and permitting of project impacts to biological resources.

The western Riverside County planning area is approximately 1.26 million acres or 1,966.7 square miles and includes all unincorporated County land west of the crest of the San Jacinto Mountains to the Orange County line, as well as the jurisdictional areas of the Cities of Temecula, Murrieta, Lake Elsinore, Canyon Lake, Norco, Corona, Riverside, Moreno Valley, Banning, Beaumont, Calimesa, Perris, Hemet and San Jacinto (“**Plan Area**”). The area is known for its natural beauty and mild climate, which combine to make the region a popular destination for recreation, tourism, and new development. The region has sustained one of the highest rates of growth in the country.

The Plan proposes to set aside 500,000 acres of land for habitat and species, including 153,000 acres of currently private land, as per the MSHCP. Lands to be conserved will be assessed via a criteria-based approach resulting in a hardline reserve. Land will be set aside through a number of implementing methods, including the “Habitat Evaluation and Acquisition Negotiation Process”, as described in Volume 1 of the MSHCP and Section 7.3 of the Implementing Agreement.

The MSHCP serves as a multiple species Habitat Conservation Plan pursuant to Section 10(a)(1)(B) of the federal Endangered Species Act (“**ESA**”) and as an NCCP under Section 2800-2835 of the Fish and Game Code. Upon approval of the MSHCP, the USFWS and CDFG can authorize the take of listed species and other species of concern, subject to the terms of the MSHCP.

The Plan is the largest NCCP/ HCP to date and covers diverse landscapes from urban cities to undeveloped foothills and montane forests. In addition to the presence of multiple habitats, the Plan stretches across the Santa Ana Mountains, Riverside Lowlands, San Jacinto Foothills, San

⁸ All subsequent references to a “former” section number are to the indicated section of the Fish and Game Code as it read on December 31, 2001, in others words to the NCCPA as amended through 2000 and disregarding changes made in 2002 by S.B. 107.

Jacinto Mountains, Agua Tibia Mountains, Desert Transition and San Bernardino Mountains bioregions.

Western Riverside County can be characterized by rural and suburban development intermixed with agricultural operations and large blocks of undeveloped lands. Large blocks of land along the south, east and west boundaries of the planning area consist of national forest holdings. The natural topography is a valley lowland area intersected with rolling hills surrounded by mountain ranges. Lowland valley areas exist below 2,000 feet in elevation while scrub/chaparral dominated hillsides range from 2,000-3,000 feet in elevation. Mountainous areas within the planning area range from 3,000 to over 10,000 feet above mean sea level. Habitat communities within the Plan Area include: montane coniferous forest, woodlands and forest, coastal sage scrub, Riversidean alluvial fan sage scrub, desert scrub, chaparral, playas and vernal pools, grassland, riparian scrub/woodland/forest, meadow, meadows and marshes, cismontane alkali marsh, open water and developed/disturbed and agricultural land.

The County of Riverside ("**County**") is lead agency for purposes of CEQA. Conservation, management, and implementation responsibilities and guarantees for the Plan will be set forth in an Implementing Agreement signed by the all Permittees and the Wildlife Agencies (United States Fish and Wildlife Service ("**USFWS**") and CDFG). All Permittees and the Wildlife Agencies will implement their respective responsibilities under the MSHCP as described in the Implementing Agreement.

The MSHCP preserve will protect biodiversity, conserve sensitive species, enhance the quality of life in the Riverside County and Southern California regions, and enhance the region's attractiveness as a location for business. The MSHCP has been developed cooperatively by local jurisdictions, state and federal agencies, representatives of the development community, representatives of the environmental advocacy community, private citizens, landowners and special districts, with the goal of conserving native vegetation communities and associated species, rather than focusing preservation efforts on individual species. Historic loss of native vegetation has resulted in many species of wildlife becoming increasingly rare, and in some cases threatened with extirpation or extinction. In the absence of a multiple species habitat conservation plan, species might continue to be added to the federal and state threatened and endangered species lists. The MSHCP provides direct economic benefits by streamlining future development outside the preserve, establishing a permanently protected reserve through an assembly process within the MSHCP Criteria Area, and decreasing the costs of compliance with federal and state laws protecting biological resources.

The Western Riverside County MSHCP is one of three components of the Riverside County Integrated Project ("**RCIP**"). The remaining two components are an updated General Plan for all of Riverside County, and a Community and Environmental Transportation Acceptability Process ("**CETAP**") for Western Riverside County. Taken together, the components of the RCIP establish a vision and process for future growth and redevelopment in Riverside County that will provide for residential and commercial development, necessary infrastructure to serve that

development, and implementation of an open space reserve that will provide for conservation and stewardship of Western Riverside County's rich biological heritage.

1.3 Implementing Agreement

CDFG plans to execute the Western Riverside County Multiple Species Habitat Conservation Plan Implementing Agreement ("**Implementing Agreement**" or "**IA**") concurrently with this NCCP Permit. The Implementing Agreement is an agreement between Western Riverside County Regional Conservation Authority, County of Riverside, Riverside County Flood Control and Water Conservation District, Riverside County Regional Parks and Open Space District, Riverside County Waste Management District, Riverside County Transportation Commission, the Cities of Banning, Beaumont, Calimesa, Canyon Lake, Corona, Hemet, Lake Elsinore, Moreno Valley, Murrieta, Norco, Perris, Riverside, San Jacinto and Temecula, California Department of Transportation, California Department of Parks and Recreation, USFWS, and CDFG. The IA is designed to ensure the implementation of the Plan, to bind each party to the terms of the Plan, and to provide remedies and recourse for failure to adhere to the terms of the Plan. This NCCP Permit specifically applies to the Plan as implemented pursuant to the Implementing Agreement.

2.0 ADMINISTRATIVE RECORD OF PROCEEDINGS

For purposes of these findings, the administrative record of proceedings for CDFG's discretionary issuance of this NCCP Permit consists, at a minimum, of the following documents:

- All Plan related materials prepared by the County of Riverside and submitted to CDFG;
- All staff reports and related non-privileged documents prepared by the CDFG with respect to its compliance with CEQA and with respect to the issuance of an NCCP Permit for the Plan;
- All written testimony or documents submitted by any person to CDFG relevant to these findings and CDFG's discretionary actions with respect to the Plan;
- All notices issued to comply with CEQA, the NCCPA, or with any other law relevant to and governing the processing and approval of this NCCP Permit by CDFG;
- All written comments received by CDFG in response to, or in connection with, environmental documents prepared for this project;
- All written evidence or correspondence submitted to, or transferred from, CDFG with respect to compliance with CEQA and with respect to the Plan;
- Any proposed decisions or findings related to the Plan submitted to CDFG by its staff, the County of Riverside, Plan supporters and opponents, or other persons;

- The documentation of the final decision by CDFG, including all documents cited or relied on in these findings adopted pursuant to CEQA and the NCCPA;
- Any other written materials relevant to CDFG's compliance with CEQA or CDFG's decision on the merits with respect to the NCCP Permit for the Plan, including any draft environmental documents that were released for public review, and copies of studies or other documents relied upon in any environmental document prepared for the project and either made available to the public during a public review period or included in CDFG's files on the Plan, and all non-privileged internal agency communications, including staff notes and memoranda related to the Plan or compliance with CEQA;
- Matters of common knowledge to CDFG, including but not limited to federal, state, and local laws and regulations; and
- Any other materials required to be in CDFG's administrative record of proceedings by Public Resources Code Section 21167.6, subdivision (e).

The custodian of the documents comprising the administrative record of proceedings is the California Department of Fish and Game, located at 1416 Ninth Street, Sacramento, California 95814. All related inquiries should be directed to the Department's Office of the General Counsel at (916) 654-3821.

CDFG has relied on all of the documents listed in this section in exercising its independent judgment and reaching its decision with respect to the MSHCP, even if every document was not formally presented to CDFG or its staff as part of the CDFG files generated in connection with the Plan. Without exception, any documents set forth above not found in CDFG's files for the Plan fall into one of two categories. Certain documents reflect prior planning or legislative decisions of which CDFG was aware in approving the Plan. (See *City of Santa Cruz v. Local Agency Formation Comm.* (1978) 76 Cal.App.3d 381, 391-392; *Dominey v. Department of Personnel Administration* (1988) 205 Cal.App.3d 729, 738, fn. 6.) Other documents influenced the expert advice of CDFG staff, who then provided advice to the decision-makers at CDFG with respect to the NCCP Permit for the Plan. For that reason, such documents form part of the underlying factual basis for CDFG's decision related to the Plan. (See Pub. Resources Code, 21167.6, subd. (e)(10); *Browning-Ferris Industries v. City Council of City of San Jose* (1986) 181 Cal.App.3d 852, 866; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 153, 155.)

3.0 FINDINGS UNDER CEQA

3.1 Environmental Documents

CDFG has prepared these findings to comply with CEQA. CDFG is a "responsible agency" under CEQA with respect to the Plan because of its authority under the NCCPA. (See generally Pub. Resources Code, §§ 21002.1, subd. (d) and 21069; CEQA Guidelines, § 15381; see also Cal.

Code Regs., tit. 14, § 783.3, subd. (a).) CDFG accordingly makes the findings that appear in Section 3.5, below, under CEQA as part of its discretionary decision to approve the Plan and authorize resulting take of species whose conservation and management is provided for in the Plan.

The County of Riverside is the CEQA "lead agency" for purposes of the Plan and has completed environmental review and approval of the Plan. (See generally Pub. Resources Code, § 21067; CEQA Guidelines, § 15367.) The County of Riverside analyzed the environmental effects of implementing the Plan.

The County of Riverside, as lead agency, has prepared a Multiple Species Habitat Conservation Plan that was approved and certified by the County Board of Supervisors on June 17, 2003. On May 21, 2004, the County prepared an Errata to that Plan. The Plan includes the following documents: Volumes I-V of the MSHCP, including Volume IV which is a Final Environmental Impact Report ("EIR") and Environmental Impact Statement ("EIS"). The State Clearinghouse Number for the EIR is 2001101108. In analyzing and approving the Plan, the County of Riverside, as the lead agency, "consider[ed] the effects, both individual and collective, of all activities involved in [the] project." (Pub. Resources Code, § 21002.1, subd. (d).)

The purpose of the joint EIR/EIS is to evaluate the potential for environmental effects from the adoption and implementation of the MSHCP and the issuance of take permits for species pursuant to Section 10(a)(1)(B) of ESA. It also evaluates the potential for environmental effects of the issuance of take authorizations pursuant to Section 2800, et seq., of the NCCPA.

Subsequently CDFG prepared an Addendum to the Final EIR/EIS ("**Addendum**"). The purpose of the Addendum was to identify minor differences between the Western Riverside Multiple Species Habitat Conservation Plan/Natural Community Conservation Plan approved by the County of Riverside in June 2003 and the subsequently released Biological Opinion prepared by the USFWS for the MSHCP/NCCP.

3.2 Findings Requirement

CEQA requires public agencies to adopt certain findings before approving a project for which an EIR was prepared. The findings that appear below are intended to comply with CEQA's mandate that no public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant effects thereof unless the agency makes one or more of the following findings:

- (1) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment;
- (2) Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency; or

- (3) Economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

Public Resources Code Section 21081, subdivision (a), CEQA Guidelines Section 15091, subdivision (a); see also CEQA Guidelines Section 15082, subdivision (b)(2). These findings are also intended to comply with the requirement that each finding by CDFG be supported by substantial evidence in the administrative record, as well as accompanied by a brief explanation of the rationale for each finding. (*Id.*, § 15091, subds. (a) and (b); see also Discussion following CEQA Guidelines, § 15091.) To that end, these findings provide the written, specific reasons supporting CDFG's decisions under CEQA as they relate to the approval of the Plan under the NCCPA.

Because CDFG adopts these findings as a responsible agency, the scope of these findings and CDFG's analysis under CEQA are more limited than that of the lead agency. (Pub. Resources Code, §§ 21102.1, subd. (d) and 21167.2; CEQA Guidelines, § 15096, subds. (f)-(h); Cal. Code Regs., tit. 14, §§ 783.3, subd. (a) and 783.5, subd. (c).) In its capacity as a responsible agency, CDFG is also bound by the legal presumption that the EIR certified by County of Riverside fully complies with CEQA. (CEQA Guidelines, § 15096, subd. (e)(1)-(2); *City of Redding, v. Shasta County Local Agency Formation Com* (1989), 209 Cal.App.3d 1169, 1178-1181; see also Pub. Resources Code, § 21167.2; *Laurel Heights Improvement Association, v. Regents of the University of California* (1993), 6 Cal.4th 1112, 1130.) In fact, CDFG is bound by the presumption of adequacy, except in extremely narrow circumstances. (Pub. Resources Code, § 21167.2; CEQA Guidelines, § 15096, subds. (e) and (f).) CDFG concludes such circumstances do not exist in the present case based on substantial evidence in its administrative record for the NCCP Permit.

3.3 Scope of Findings

CDFG is a responsible agency under CEQA for purposes of approving the Plan because of its authority under NCCPA and the lead agency's prior actions with respect to the project. As a responsible agency, CDFG's CEQA obligations are "more limited" than those of the lead agency. (CEQA Guidelines, § 15096, subd. (g)(1).) CDFG, in particular, is "responsible for considering only the effects of those activities involved in [the] project which it is required by law to carry out or approve." (Pub. Resources Code, § 21002.1, subd. (d).) Thus, while CDFG must "consider the environmental effects" of the Plan as disclosed in the environmental documents described above, CDFG "has responsibility for mitigating or avoiding only the direct or indirect environmental effects of those parts of the project which it decides to carry out, finance, or approve." (CEQA Guidelines, § 15096, subds. (f), (g)(1).) Accordingly, because CDFG's exercise of discretion is limited to approval of the Plan and associated take authorizations, CDFG is responsible for considering only the environmental effects that fall within its authority under the NCCPA.

CDFG's more limited obligations as a responsible agency affect the scope of, but not the obligation to adopt, findings required by CEQA. Findings are required, in fact, by each "public agency" that approves a "project for which an environmental impact report has been certified which identifies one or more significant effects on the environment [.]'" (Pub. Resources Code, § 21081, subd. (a); CEQA Guidelines, § 15091, subd. (a); see also Pub. Resources Code, § 21068 ("significant effect on the environment defined"); CEQA Guidelines, § 15382 (same).) Because the County of Riverside certified the EIR in approving the Plan, the obligation to adopt findings under CEQA necessarily applies to CDFG as a responsible agency. (CEQA Guidelines, § 15096, subd. (h); *Resource Defense Fund v. Local Agency Formation Comm. of Santa Cruz County* (1987) 191 Cal.App.3d 886, 896-898.)

The specific provision of the CEQA Guidelines addressing the responsible agency findings obligation is Section 15096, subdivision (h). That section provides, in pertinent part, that a "responsible agency shall make the findings required by Section 15091 for each significant effect of the project and shall make the findings in Section 15093 if necessary." (CEQA Guidelines, § 15096, subd. (h).) The scope of this charge in the guidelines is governed by statutory language concerning the extent of responsible agency decision making authority under CEQA. As noted above, the controlling statute provides that a "responsible agency shall be responsible for considering only the effects of those activities involved in a project which it is required by law to carry out or approve." (Pub. Resources Code, § 21002.1, subd. (d).) The same section underscores that the more limited scope of review for responsible agencies necessarily "applies only to decisions by a public agency to carry out or approve a project[.]" (*Ibid.*) For the same reason, CDFG is required to adopt findings under CEQA in the present case only for those environmental effects specifically authorized by CDFG under NCCPA.

3.4 Legal Effect of the Findings

These findings are not merely informational. To the extent CDFG relies on implementation of particular measures to make a necessary finding under CESA or NCCPA, those measures constitute a binding set of obligations that take effect when CDFG approves the NCCP Permit for the Plan. CDFG believes that all mitigation and conservation measures that it has relied on for purposes of its findings are separately required under the Plan or the Implementing Agreement, or are express conditions of this NCCP Permit. Consequently CDFG does not anticipate that as a practical matter these findings, in and of themselves, will increase obligations of those operating under authority of this NCCP Permit.

3.5 Findings Regarding Potentially Significant Environmental Effects

The County's Final EIR/EIS analyzed the following impacts: biological resources, agricultural and extractive resources, population, housing and employment, public services, transportation and circulation, and the cumulative impacts associated with the overall plan. Issues deemed to be not as significant and therefore not selected for detailed analysis included: aesthetics, air quality, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water

quality, land use, noise, public services, utilities and environmental justice (Sections 3.0, 4.0 and 5.0 of Volume IV of V: Final EIR/EIS).

The Final EIR/EIS identified several potentially significant environmental impacts that would result with implementation of the MSHCP. The County concluded as the lead agency for the project under CEQA that some of these significant effects could be avoided through the adoption of feasible mitigation measures and that other potentially significant impacts could not be avoided by the adoption of feasible mitigation measures or feasible environmentally superior alternatives. The County found in the EIR/EIS that there would be no significant non-mitigable impacts from implementation of the MSHCP in the areas of: agricultural resources, public services, and transportation and circulation. The County found that implementation of the Plan would have a significant effect on the population, housing and employment and extractive resources (cumulative only). Regarding biological resources, the County found that the Plan would reduce identified impacts to a level below significance for all impacts except those associated with non-covered species, native grasslands, and edge effects (cumulative). The County concluded that impacts to non-covered species, native grasslands, and edge effects (cumulative) are significant and not mitigable therefore a statement of overriding findings was prepared and adopted.

The EIR/EIS does not reiterate the information found in the MSHCP but does incorporate by reference the avoidance and mitigation measures included with the MSHCP. The list of assumptions on page 4.1-9 of the EIR/EIS details the policies in the MSHCP that are designed to avoid or reduce biological impacts and which will be incorporated during Plan implementation. These include: Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools (MSHCP, Section 6.1.2); Protection of Narrow Endemic Plant Species (MSHCP, Section 6.1.3); Additional Survey Needs and Procedures (MSHCP, Section 6.3.2) and Guidelines Pertaining to Urban/Wildlands Interface (MSHCP, Section 6.1.4). The analysis of alternatives in the EIR/EIS also incorporates the following components of the MSHCP: Management and Monitoring (MSHCP Section 5.0); Criteria-based Plan (MSHCP Section 3.3.1-3.3.17); and description and analysis of Covered Activities/Allowable Uses (MSHCP Section 7.0).

Management measures occur at the landscape level and the species-specific level. These management measures address the processes, threats and disturbances that affect habitat and species. Management measures will be periodically evaluated to ensure their effectiveness. The disturbance regimes include trespass, dumping, vandalism, off-road vehicle use, the fire regime, habitat disturbance, invasive plants and animals, erosion and sedimentation. These measures will benefit all species and habitats and are found on page 5-5 of the MSHCP. Management responses to disturbance regimes are found on page 5-9 of the MSHCP. The range of measures regarding habitat include natural regeneration, maintenance of existing or restored habitat, enhancement, revegetation, restoration and creation (page 5-12 of the MSHCP).

Volume II, Section B of the MSHCP includes the detailed species accounts for all of the Covered Species. Page IIB-2 of Volume II, Section B of the species accounts discusses implementation objectives, including: 1) upland habitat quality within the MSHCP Conservation Area will be maintained and managed in similar or better condition as when the lands are conveyed; 2) wetland

habitat quality within the MSHCP Conservation Area will be maintained and managed in similar or better condition as when the lands are conveyed; 3) best management practices will be implemented in accordance with the guidelines presented in Appendix C to the MSHCP, Volume I and 1601 Streambed Alteration Agreements for flood control facilities maintenance will be implemented; new lands adjacent to the MSHCP Conservation Area shall implement the Guidelines Pertaining to the Urban/Wildlands Interface from Section 6.1.4 of the MSHCP; and the maintenance of existing habitat conditions prior to reserve assembly policies in Section 6.1.5 of the MSHCP. Additionally, Page IIB-2 of Volume II Section B of the MSHCP discusses measures in 6.1.2 of the MSHCP, Volume I, which shall be implemented to protect Riparian/Riverine Areas and Vernal Pool species as listed on page IIB-3 and 4. The Narrow Endemic Plant Species policies in Section 6.1.3 of the MSHCP, Volume I shall be implemented for the benefit of the species listed on page IIB-4 of Volume II, Section B of the MSHCP. The Additional Survey Needs and Procedures in Section 6.3.2 of the MSHCP, Volume I shall also be implemented to benefit the species listed on pages IIB-4 and 5 of Volume II, Section B of the MSHCP. The MSHCP also includes implementation measures regarding Covered Activities within the Criteria Area and Allowable Uses within the MSHCP as per Section 7.0 of the MSHCP, Volume I. Monitoring and management activities will be undertaken for each of the MSHCP Covered Species and monitoring and management activities are described in Sections 5.2 and 5.3 of the MSHCP, Volume I.

Species specific biological goals have been established for all of the Covered Species in the MSHCP. These objectives are contained in the specific species accounts in Volume II, Part II, Section B of the MSHCP. All of the Covered Species have been assigned to one of three group designations (Group 1, Group 2, or Group 3), based on group definitions in the NCCPA. These groupings have been assigned to assist development of individual species objectives as well as monitoring and management requirements. The specific group definitions are found in Volume II, Part 2 of 2, Section B, page IIB-5-6, of the MSHCP. Each species account contains a group designation and rationale, species conservation objectives, an analysis of conservation levels, an analysis of MSHCP Conservation Area configuration issues, a conservation strategy summary and a take analysis. Included with the species analysis is also the specific species account information which includes: species data characterization, habitat and habitat associations, biogeography, known populations within Riverside County, key populations within the Plan Area, biology of the species, threats to the species, and the literature cited.

Against this backdrop, this section presents CDFG's responsible agency findings with respect to the potentially significant environmental effects authorized by CDFG pursuant to the NCCP Permit issued to the Permittees under NCCPA. The NCCP Permit includes the 146 listed and non-listed species referred to collectively as "Covered Species" in the MSHCP and the EIR/EIS. The take of Covered Species Adequately Conserved is allowed upon permit issuance. Covered Species Meeting Conservation can be taken once certain objective criteria are met. The list of 146 Covered Species is found in Exhibit C of the Implementing Agreement. The list of Covered Species Adequately Conserved is found in Exhibit D of the IA.

Based on the EIR/EIS and Addendum, CDFG finds that the NCCP Approval may result in significant adverse effects on the environment. CDFG further finds that changes or alterations have been required in, or incorporated into, the project by CDFG and the Permittees that avoid or mitigate the significant environmental effects, as set forth in the EIR/EIS, the Addendum to the EIR/EIS, and the IA.

This NCCP Permit authorizes the take of the Covered Species Adequately Conserved, and once the stated objective criteria are met, the Covered Species Meeting Conservation. The Department as a consequence, hereby makes the following findings under CEQA with respect to effects associated with the take of each species by the MSHCP project as authorized under the NCCPA.

Impact 3.5.1

Approval of the MSHCP authorized under the NCCP Permit could result in potentially significant adverse impacts on these Group 1 coastal sage scrub/chaparral/desert scrub species: Belding's orange-throated whiptail (*Cnemidophorus hyperythrus beldingi*), coastal western whiptail (*Cnemidophorus tigris multiscutatus*), granite spiny lizard (*Sceloporus orcutti*), San Diego horned lizard (*Phrynosoma coronatum blainvillei*), brush rabbit (*Sylvilagus bachmani*), coyote (*Canis latrans*), Dulzura kangaroo rat (*Dipodomys simulans*), northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), San Diego desert woodrat (*Neotoma lepida intermedia*), and Coulter's matilija poppy (*Romneya coulteri*).

Finding 3.5.1

The Department finds that changes or alterations have been required in or incorporated into the MSHCP and CDFG's NCCP Permit which mitigate or avoid the potential significant impacts of the MSHCP on these Group 1 coastal sage scrub/chaparral/desert scrub species to below a level of significance. (Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).)

Explanation 3.5.1:

Under the Plan, Group 1 species are species whose coverage is warranted based upon regional or landscape level considerations, such as healthy population levels, widespread distribution throughout the Plan Area, and life history characteristics that respond to habitat-scale conservation and management actions. The individual species objectives in combination with the "Assumptions" (Section 4.1.2 of the Final EIR/EIS and Addendum), the habitat protection measures in Section 6.0 of the MSHCP, and the management, monitoring and adaptive management plan (Section 5.0 of the MSHCP) will ensure the Conservation of species and habitat. Conservation of large Core Areas will also ensure Conservation by providing large areas of habitat connected by Linkages. Preservation of populations of species in different geographic areas will ensure that a catastrophic event in one or multiple areas will not threaten the survival of a particular species.

These species are widespread throughout the Plan Area and occur in coastal sage scrub, chaparral, and desert scrub habitats. Implementation of the Plan will result in the loss of coastal sage scrub, chaparral and desert scrub habitat. Specific habitat loss figures vary with the species. Habitat losses are as follows: for Belding's orange-throated whiptail 155,483 acres; for coastal western whiptail 182,962 acres; for granite spiny lizard 237,637 acres; for San Diego horned lizard 322,536 acres; for brush rabbit 223,195 acres; for coyote 495,000 acres; for Dulzura kangaroo rat 146,632 acres; for northwestern San Diego pocket mouse 323,457 acres; for San Diego black-tailed jackrabbit 183,412 acres; for San Diego desert woodrat 218,955 acres; and, for Coulter's matilija poppy 26,730 acres (pages R-5, R-19, R-40, R-76, M-37, M-48, M-64, M-124, M-175, M-189 and P-84 of Volume II: Section B Species Accounts and pages 4.1-35, 4.1-38, 4.1-37, 4.1-65, 4.1-60, 4.1-61, 4.1-60, 4.1-63, 4.1-64, and 4.1-83 of Volume IV: EIR/EIS and Addendum).

With the exception of Coulter's matilija poppy and San Diego desert woodrat, the Plan has two biological objectives for each of these species which will ensure that impacts are mitigated to below a level of significance. In the Plan, the objectives for Belding's orange-throated whiptail are to include within the Conservation Area 226,313 acres of suitable habitat and at least nine (9) Core Areas (page R-2, Volume II: Section B Species Accounts). In the Plan, the objectives for coastal western whiptail are to include within the Conservation Area 142,117 acres of suitable habitat and at least 13 Core Areas (page R-16, Volume II: Section B Species Accounts). In the Plan, the objectives for granite spiny lizard are to include within the Conservation Area 408,216 acres of suitable habitat and at least 12 Core Areas (page R-37, Volume II: Section B Species Accounts). In the Plan, the objectives for San Diego horned lizard are to include within the Conservation Area 407,036 acres of suitable habitat and at least 13 Core Areas (page R-73, Volume II: Section B Species Accounts). In the Plan, the objectives for brush rabbit are to include within the Conservation Area 382,115 acres of suitable habitat and 44,000 acres of dispersal and/or movement Linkages (page M-34, Volume II: Section B Species Accounts). In the Plan, the objectives for coyote are to include within the Conservation Area 489,500 acres of suitable habitat and key Linkages as specified on page M-46, Volume II: Section B Species Accounts. In the Plan, the objectives for the Dulzura kangaroo rat are to include within the Conservation Area 198,200 acres of suitable habitat and 21,000 acres of dispersal and/or movement Linkages (page M-60, Volume II: Section B Species Accounts). In the Plan, the objectives for the northwestern San Diego pocket mouse are to include within the Conservation Area 407,645 acres of suitable habitat and 18,000 acres of dispersal and/or movement Linkages (page M-121, Volume II: Section B Species Accounts). In the Plan, the objectives for the black-tailed jackrabbit are to include within the Conservation Area 142,116 acres of suitable habitat and 27,000 acres of habitat Linkages (page M-172, Volume II: Section B Species Accounts). In the Plan, the objective for the San Diego desert woodrat is to include within the Conservation Area 364,828 acres of suitable habitat (page M-186, Volume II: Section B Species Accounts). In the Plan, the objectives for Coulter's matilija poppy are to include within the Conservation Area 65,350 acres of suitable habitat and confirm 30 localities of this species (P-82, Volume II: Section B Species Accounts). In addition, Coulter's matilija poppy may benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP

(Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS and Addendum, and 9.2(2)(4) of the MSHCP.).

There are quantitative differences in the amount of suitable habitat between the MSHCP/NCCP and the Biological Opinion for coastal western whiptail and Coulter's matilija poppy. These differences are primarily related to whether or not certain bioregions were assumed to be included in the definition of suitable habitat, and particularly the Riverside Lowlands bioregion which includes most of the existing urban development in the Plan Area but also includes large remaining habitat areas. These different assumptions resulted in different quantitative information but do not alter the conclusions of the effects analyses in either the MSHCP/NCCP or the Biological Opinion because similar levels of Conservation are anticipated in the Riverside Lowlands bioregion in both the MSHCP/NCCP and the Biological Opinion.

The Department finds that issuance of the MSHCP permit could result in significant impacts on these Group 1 Coastal Sage Scrub, chaparral and desert scrub species and their habitat from development and other covered activities contemplated by the Plan. Likewise, the Department finds that all impacts on these species and their habitat associated with the Department's issuance of the Permit will be avoided or mitigated to below a level of significance under CEQA through adherence to and implementation of the Western Riverside MSHCP. In so doing, the Department's findings under CEQA with respect to these species are consistent with the findings of the lead agency on the same subject (see Final EIR/EIS Sections 4.1, Table 4C, page 4.1-97, page 4.1-145, and Section 4.1.6 and Addendum). The Department's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, monitoring and management program, and species-specific biological objectives, minimization and avoidance measures (MSHCP Sections 5.0, 6.1.2, 6.1.3, 6.1.4, 6.4, 7.0, 9.0 and Volume 2: Section B Species Accounts).

Impact 3.5.2

Approval of the MSHCP authorized under the NCCP Permit could result in potentially significant adverse impacts on these Group 1 High Elevation species: black swift (*Cypseloides niger*), Lincoln's sparrow (*Melospiza lincolni*), MacGillivray's warbler (*Oporornis tolmiei*) and mountain quail (*Oreortyx pictus*).

Finding 3.5.2

The Department finds that changes or alterations have been required in or incorporated into the MSHCP and CDFG's NCCP Permit which mitigate or avoid the potential significant impacts of the MSHCP on these Group 1 High Elevation species to below a level of significance. (**Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).**)

Explanation 3.5.2:

These species are found primarily in United States Forest Service lands, including the Cleveland National Forest and San Bernardino National Forest which total 202,700 acres of Conservation.

Black swift is spread widely over the Plan Area in low numbers. Habitat for this species includes: montane coniferous woodland and forest habitats of the San Jacinto Mountains and San Bernardino Bioregions that contain waterfalls and cliffs for nesting. The population is primarily migrant with the exception of known nesting locations in the San Jacinto Mountains. Implementation of the Plan will result in the loss of approximately 12,270 acres of potential habitat for this species (page B-57, Volume II: Section B Species Accounts, Table 4C page 4.1-47 EIR/EIS). In the Plan there is one biological objective which will ensure that impacts on this species are mitigated to below a level of significance: include within the Conservation Area 34,020 acres of suitable breeding and foraging habitat for this species (page B-55, Volume II: Section B Species Accounts). This species is a Forest Service Sensitive Species which requires a biological evaluation to assess the potential impacts of Forest Service activities on it (page B-54). In addition, this species may benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS, and 9.2(2)(4) of the MSHCP).

Lincoln's sparrow has sparse and widespread distribution throughout the Plan Area within a variety of habitats. It is a transient in the spring and fall and may winter in the area. Black swift is known to utilize montane meadow, wet montane meadow and the edges of montane riparian and riparian scrub for breeding purposes. Many of these areas are located in the San Jacinto wilderness. Wintering and migratory areas include a wide variety of lowland scrub and scrub habitats. Implementation of the Plan will result in the loss of approximately 580 acres of potential habitat for this species (page B-281, Volume II Species Accounts, Table 4C page 4.1-51 EIR/EIS and Addendum). In the Plan there are three (3) biological objectives which will ensure that impacts on this species are mitigated to below a level of significance. They are: 1) include within the Conservation Area at least 470 acres of suitable breeding habitat; 2) include within the Conservation Area 190,390 acres of suitable wintering habitat; and 3) maintain occupancy within three large Core Areas (100%) in at least one (1) year out of any five (5) consecutive-year period (page B-277, Volume II: Section B Species Account). Lincoln's sparrow is on the Covered Species Meeting Conservation list (see Objective 3, page B-277, Volume II: Section B Species Accounts). In addition, this species may benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS and Addendum, and 9.2(2)(4) of the MSHCP).

There are quantitative differences in the amount of suitable habitat between the MSHCP/NCCP and the Biological Opinion for Lincoln's sparrow. These differences are primarily related to whether or not certain bioregions were assumed to be included in the definition of suitable habitat, and particularly the Riverside Lowlands bioregion which includes most of the existing urban development in the Plan Area but also includes large remaining habitat areas. These different assumptions resulted in different quantitative information but do not alter the conclusions of the effects analyses in either the MSHCP/NCCP or the Biological Opinion because similar levels of Conservation are anticipated in the Riverside Lowlands bioregion in both the MSHCP/NCCP and the Biological Opinion.

MacGillivray's warbler has sparse and widespread distribution throughout the Plan Area within a variety of habitats, montane coniferous forest and woodland, riparian scrub, woodland and forest habitat, oak woodland and forest, chaparral, coastal sage scrub, desert scrub and Riversidean sage scrub. Most of MacGillivray's warbler habitat is located within the San Jacinto Wilderness Area on Forest Service land. It is a transient in the spring and fall and does not winter in the Plan Area. Implementation of the Plan will result in the loss of approximately 240,570 acres of potential habitat for this species (page B-311, Volume II: Section B Species Accounts and page 4.1-53, Volume IV: EIR/EIS). In the Plan there is one biological objective which will ensure that impacts on this species are mitigated to below a level of significance: the inclusion of 418,780 acres of suitable habitat for this species (page B-309, Volume II: Section B Species Accounts). In addition, this species may benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS, and 9.2(2)(4) of the MSHCP).

Mountain quail has a widespread distribution within all of the mountain ranges west of the deserts in chaparral, oak deciduous woodland and forest, and coniferous forest within the Desert Transition, San Bernardino Mountains, San Jacinto Mountains and Santa Ana Mountain Bioregions. The Plan states that mountain quail predictably uses suitable brushy montane chaparral and occurs widely throughout the Plan Area and therefore should respond well to a landscape level of management. Implementation of the Plan will result in the loss of 93,800 acres of potential habitat outside the Criteria Area and 32,730 acres of potential habitat in Rural/mountainous designation (page B-346, Volume II: Section B Species Accounts and page 4.1-54, Volume IV: EIR/EIS). In the Plan there is one biological objective which will ensure that impacts on this species are mitigated to below a level of significance: include within the Conservation Area at least 234,940 acres of suitable habitat in the desert transition, San Bernardino Mountains, San Jacinto Mountains and Santa Ana Mountains as well as Linkages between the mountainous areas and lowlands (page B-342, Volume II: Section B Species Accounts).

The Department finds that issuance of the MSHCP permit could result in significant impacts on these Group 1 High Elevation species and their habitat from development and other covered activities contemplated by the Plan. Likewise, the Department finds that all impacts on these species and their habitat associated with the Department's issuance of the Permit will be avoided or mitigated to below a level of significance under CEQA through adherence to and implementation of the Western Riverside MSHCP. In so doing, the Department's findings under CEQA with respect to these species are consistent with the findings of the lead agency on the same subject (see Final EIR/EIS Sections 4.1, Table 4C, page 4.1-97, page 4.1-145, and Section 4.1.6 and Addendum). The Department's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, monitoring and management program, and species-specific biological objectives, minimization and avoidance measures (MSHCP Sections 5.0, 6.1.2, 6.1.3, 6.1.4, 6.4, 7.0, 9.0 and Volume 2: Section B Species Accounts).

Impact 3.5.3

Approval of the MSHCP authorized under the NCCP Permit could result in potentially significant adverse impacts on these Group 1

Wetland/Marsh/Lake species: bald eagle (*Haliaeetus leucocephalus*) and Peregrine falcon (*Falco peregrinus*), both of which are state listed fully protected species.

Finding 3.5.3

The Department finds that changes or alterations have been required in or incorporated into the MSHCP which mitigate or avoid the potential significant impacts of the MSHCP on these Group 1 Wetland/Marsh/Lake species to below a level of significance. (**Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).**)

Explanation 3.5.3:

Bald Eagle and Peregrine falcon, both state fully protected species, have a wide distribution throughout the Plan Area. Bald eagle occurs within the Plan Area predominantly as a winter visitor and Peregrine falcon as a fall visitor at every open water body. Peregrine falcon frequents Prado Basin on a regular basis. Implementation of the Plan will result in the loss of 2,140 acres of suitable habitat for these species (page B-14, Volume II: Section B Species Accounts). In the Plan there are two biological objectives which will ensure that impacts on these species are mitigated to below a level of significance: 1) include within the Conservation Area at least 10,340 acres of open water habitat (specified on page B-12, Volume II: Section B Species Accounts) and 5,520 acres of riparian habitat within the Prado Basin and Santa Ana River; and, 2) establish a 100-meter buffer around open water bodies specified in Objective 1. These species will benefit from the Riparian/Riverine Areas and Vernal Pool Policy (Sections 6.1.2, 9.2(2)(7) of the MSHCP and 4.1-85 of the EIR/EIS), Best Management Practices (Section 9.2(2)(4) of the MSHCP) and nest protection policies of the MSHCP (page 5-6 of Section 5.2.1(5) of the MSHCP).

The Department finds that issuance of the MSHCP permit could result in significant impacts on these Group 1 Wetland/Marsh/Lake species and their habitat from development and other covered activities contemplated by the Plan. Likewise, the Department finds that all impacts on these species and their habitat associated with the Department's issuance of the Permit will be avoided or mitigated to below a level of significance under CEQA through adherence to and implementation of the Western Riverside MSHCP. In so doing, the Department's findings under CEQA with respect to these species are consistent with the findings of the lead agency on the same subject (see Final EIR/EIS Sections 4.1, Table 4C, page 4.1-97, page 4.1-145, and Section 4.1.6). The Department's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, monitoring and management program, and species-specific biological objectives, minimization and avoidance measures (MSHCP Sections 5.0, 6.1.2, 6.1.3, 6.1.4, 6.4, 7.0, 9.0 and Volume 2: Section B Species Accounts).

Take of these state listed fully protected species is not authorized by the NCCP Permit and is prohibited by the CDFG Code except in certain limited situations (see Fish and Game Code Sections 3511, 4700, 5050, and 5515).

Impact 3.5.4

Approval of the MSHCP authorized under the NCCP Permit could result in potentially significant adverse impacts on these Group 1 Riparian/Aquatic species: merlin, (*Falco columbarius*); sharp-shinned hawk, (*Accipiter striatus*); and Wilson's warbler, (*Wilsonia pusilla*).

Finding 3.5.4

The Department finds that changes or alterations have been required in or incorporated into the MSHCP and CDFG's NCCP permit which mitigate or avoid the potential significant impacts of the MSHCP on these Group 1 Riparian/Aquatic species to below a level of significance. (**Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).**)

Explanation 3.5.4:

The merlin has a sparse and widespread distribution through the Plan Area within almost every habitat category. It is an opportunistic predator which occurs as a transient in the spring and fall and occasionally winters in the area, but does not nest in the region. Implementation of the Plan will result in the loss of 302,430 acres of potential habitat for the merlin (page B-322, Volume II: Section B Species Accounts and page 4.1-49, Volume IV: EIR/EIS). In the Plan there is one biological objective which will ensure that impacts on this species are mitigated to below a level of significance: to conserve at least 193,840 acres of agriculture (field crops), grassland, freshwater marsh, cismontane alkali marsh, playa and vernal pool, desert scrubs, Riversidean alluvial fan sage scrub, coastal sage scrub, and riparian scrub, woodland and forest and oak woodlands and forest habitats (page B-319). This species will benefit from the Riparian/Riverine Areas and Vernal Pool Policy (Sections 6.1.2, 9.2(2)(7) of the MSHCP and 4.1-85 of the EIR/EIS) and Best Management Practices (Section 9.2(2)(4) of the MSHCP).

The sharp-shinned hawk has a widespread distribution throughout the Plan Area within suitable foraging habitat. It is an opportunistic predator which occurs within the Plan Area as a transient in the spring and fall and may winter within the area. Implementation of the Plan will result in the loss of approximately 240,570 acres of potential habitat for this species (page B-449, Volume II: Section B Species Accounts and page 4.1-39, Volume IV: EIR/EIS). In the Plan there is one biological objective which will ensure that impacts on this species are mitigated to below a level of significance: conserve at least 20,500 acres of montane coniferous forest for breeding areas and 398,280 acres of riparian scrub, woodland and forest, oak woodland and forest, chaparral, coastal sage scrub, desert scrub, and Riversidean alluvial fan sage scrub for foraging (page B-447). This species will benefit from the Riparian/Riverine Areas and Vernal Pool Policy (Sections 6.1.2, 9.2(2)(7) and 4.1-85 of the EIR/EIS), Best Management Practices (Section 9.2(2)(4) of the MSHCP) and nest protection policies of the MSHCP (page 5-6 of Section 5.2.1(5) of the MSHCP).

Wilson's warbler has a sparse and widespread distribution in almost every habitat in the Plan area. It is a transient in the spring and fall and breeds within the mountain Bioregions in shrub and scrub habitat, wet and montane meadow, and edges of riparian and forested habitats. Implementation of the Plan will result in the loss of approximately 71,030 acres of potential breeding habitat and

219,680 acres of potential migratory movement habitat (page 616, Volume II: Section B Species Accounts and page 4.1-59, Volume IV: EIR/EIS). In the Plan there are two biological objectives which will ensure that impacts on this species are mitigated to below a level of significance: 1) include within the Conservation Area at least 198,850 acres of suitable montane meadow, riparian scrub, oak woodland and forest, coastal sage scrub, chaparral and Riversidean sage scrub in the San Bernardino Mountains, San Jacinto Mountains and San Ana Mountain Bioregions; and 2) include within the Conservation Area at least 192,140 acres of suitable dispersal and migration habitat and interconnecting Linkages for transient migration movement, including most of the lowland habitats (page B-612, Volume II: Section B Species Accounts). This species will benefit from the Riparian/Riverine Areas and Vernal Pool Policy (Sections 6.1.2, 9.2(2)(7) of the MSHCP and 4.1-85 of the EIR/EIS) and Best Management Practices (Section 9.2(2)(4) of the MSHCP).

The Department finds that issuance of the MSHCP permit could result in significant impacts on these Group 1 Riparian/Aquatic species and their habitat from development and other covered activities contemplated by the Plan. Likewise, the Department finds that all impacts on these species and their habitat associated with the Department's issuance of the Permit will be avoided or mitigated to below a level of significance under CEQA through adherence to and implementation of the Western Riverside MSHCP. In so doing, the Department's findings under CEQA with respect to these species are consistent with the findings of the lead agency on the same subject (see Final EIR/EIS Sections 4.1, Table 4C, page 4.1-97, page 4.1-145, and Section 4.1.6). The Department's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, monitoring and management program, and species-specific biological objectives, minimization and avoidance measures (MSHCP Sections 5.0, 6.1.2, 6.1.3, 6.1.4, 6.4, 7.0, 9.0 and Volume 2: Section B Species Accounts).

Impact 3.5.5

Approval of the MSHCP authorized under the NCCP Permit could result in potentially significant adverse impacts on these Group 1 Grassland species: ferruginous hawk (*Buteo regalis*), prairie falcon (*Falco mexicanus*), Swainson's hawk (*Buteo swainsoni*) and Payson's jewelflower (*Caulanthus simulans*).

Finding 3.5.5

The Department finds that changes or alterations have been required in or incorporated into the MSHCP and CDFG's NCCP Permit which mitigate or avoid the potential significant impacts of the MSHCP on these Group 1 Grassland species to below a level of significance. (**Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).**)

Explanation 3.5.5

The ferruginous hawk, Swainson's hawk and prairie falcon have a widespread distribution throughout the Plan Area. Neither the ferruginous hawk nor Swainson's hawk nest in the Plan Area. Habitats used by these species include grassland, playa and vernal pool, Riversidean alluvial fan sage scrub, coastal sage scrub, and desert scrub. Core Areas for these species include: Prado

Basin, Santa Ana River, and Mystic Lake/San Jacinto Wildlife Area. Swainson's hawk has a wider distribution with other areas including Lake Mathews-Estelle Mountain, Lake Elsinore, Temecula Creek, Vail Lake/Wilson Valley, Lake Skinner, Sycamore Canyon Regional Park, Box Springs Mountain Motte-Rimrock Reserve and the Badlands. Implementation of the Plan will result in the loss of approximately 257,290 acres of potential habitat for the ferruginous hawk; 257,220 acres of potential habitat for Swainson's hawk; and 182,490 acres or of potential habitat for prairie falcon (pages B-200, B-424 and B-498 of Volume II: Section B Species Accounts, and pages 4.1-45 and 4.1-150 of Volume IV: EIR/EIS). In the Plan there is one biological objective which will ensure that impacts on these respective species are mitigated to below a level of significance: 1) for ferruginous hawk include in the Conservation Area at least 144,120 acres of varied habitat (see above), 2,690 acres at Mystic Lake/San Jacinto Wildlife Area and 5,520 acres of riparian habitat at Prado Basin/Santa Ana River; for Swainson's hawk include in the Conservation Area at least 141,960 acres of varied habitats (see above); and for prairie falcon include in the Conservation Area at least 141,510 acres of varied habitat (see above). These species will benefit from the Riparian/Riverine Areas and Vernal Pool Policy (Sections 6.1.2, 9.2(2)(7) of the MSHCP and 4.1-85 of the EIR/EIS), Best Management Practices (Section 9.2(2)(4) of the MSHCP), Urban/Wildlands Interface Policy (Section 6.1.4 of the MSHCP) and nest protection policies of the MSHCP (page 5-6 of Section 5.2.1(5) of the MSHCP).

Payson's jewelflower has a widespread distribution in the southeastern portion of the Plan Area in peninsular juniper woodland and scrub, chaparral and coastal sage scrub in disturbed areas. Known locations include Aguanga, Billy Goat Mountain, Lewis Valley, and Tule Valley. Implementation of the Plan will result in the loss of approximately 46,380 acres of potential habitat (page P-284, Volume II: Section B Species Accounts and page 4.1-69 of Volume IV: EIR/EIS). In the Plan there is one biological objective which will ensure that impacts on this species are mitigated to below a level of significance. The objective for this species is to conserve 94,430 acres of suitable habitat (page P-282, Volume II: Section B Species Accounts).

The Department finds that issuance of the MSHCP permit could result in significant impacts on these Group 1 Grassland species and their habitat from development and other covered activities contemplated by the Plan. Likewise, the Department finds that all impacts on these species and their habitat associated with the Department's issuance of the Permit will be avoided or mitigated to below a level of significance under CEQA through adherence to and implementation of the Western Riverside MSHCP. In so doing, the Department's findings under CEQA with respect to these species are consistent with the findings of the lead agency on the same subject (see Final EIR/EIS Sections 4.1, Table 4C, page 4.1-97, page 4.1-145, and Section 4.1.6). The Department's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, monitoring and management program, and species-specific biological objectives, minimization and avoidance measures (MSHCP Sections 5.0, 6.1.2, 6.1.3, 6.1.4, 6.4, 7.0, 9.0 and Volume 2: Section B Species Accounts).

Impact 3.5.6

Approval of the MSHCP authorized under the NCCP Permit could result in potentially significant adverse impacts on these Group 2 Coastal Sage Scrub/Alluvial Fan Sage Scrub and Desert Scrub species: granite night lizard

(*Xantusia henshawi henshawi*); northern red diamond rattlesnake (*Crotalus ruber ruber*); San Diego banded gecko (*Coleonyx variegates abbottii*); Southern sagebrush lizard (*Sceloporous graciosus vandenburgianus*); Bell's sage sparrow (*Amphispiza belli belli*); coastal California gnatcatcher (*Polioptila californica californica*); southern California rufous-crowned sparrow (*Aimophila ruficeps canescans*); long-tailed weasel (*Mustela frenata*); mountain lion (*Puma concolor*); and Palmer's grappplinghook (*Harpagonella palmeri*)

Finding 3.5.6

The Department finds that changes or alterations have been required in or incorporated into the MSHCP which mitigate or avoid the potential significant impacts of the MSHCP on these Group 2 Coastal Sage Scrub/Alluvial Fan Sage Scrub and Desert Scrub species to below a level of significance. (**Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).**)

Explanation 3.5.6:

Group 2 species are those where coverage is warranted based on regional or landscape level considerations with site specific conservation and management requirements that are clearly identified in the Plan for species that are generally well-distributed, but that have Core habitats that must be conserved. In the Plan (Volume II of V: The Reference Document, Part 2 of 2: Section B) these species are characterized by the fact that they are widespread, are located in many of the Core Areas, and do not require specific management measures. The common requirements for conservation of these species are large habitat areas, adequate vegetative cover, and suitable dispersal and/or movement Linkages, all of which are provided in the Plan.

Granite night lizard occurs in localized populations in flaking granite, rock outcrops and boulder fields, commonly associated with chaparral, sage scrub, mixed conifer forest and oak woodland. Implementation of the Plan will result in the loss of approximately 197,038 acres of potential habitat for this species (page R-29, Volume II: Section B Species Accounts and 4.1-38 of Volume IV: EIR/EIS). In the Plan there are two biological objectives which will ensure that impacts on this species are mitigated to below a level of significance: 1) include at least 297,143 acres of chaparral, sage scrub, coniferous forest and oak woodland east of Interstate 215 and containing the species' microhabitat requirements; and, 2) include within the Conservation Area at least nine (9) Core Areas (pages R-26 & 27, Volume II: Section B Species Accounts).

Northern red diamond rattlesnake is widely distributed throughout the Plan Area with no defined Core Areas. It is associated with undisturbed old growth chaparral and coastal sage scrub. Implementation of the Plan will result in the loss of approximately 214,769 acres of potential habitat for this species (page R-51, Volume II: Section B Species Accounts and page 4.1-36, Volume IV: EIR/EIS). The Plan states that this species will respond to a landscape level of management with site-specific requirements. In the Plan there are three biological objectives which will ensure that impacts on this species are mitigated to below a level of significance: 1)

include in the Conservation Area at least 338,672 acres of chaparral and sage scrub habitat below 1,520 meters; 2) include within the Conservation Area at least 10 Core Areas (see page R-48, Volume II: Section B Species Accounts); and, 3) include Linkages between Core Areas.

San Diego banded gecko is widely distributed throughout the Riverside lowlands and San Jacinto Foothills Bioregions in a wide variety of sage scrub and chaparral habitats. There are no definable Core Areas for this species. Implementation of the Plan will result in the loss of approximately 125,771 acres of potential habitat for this species (page R-64, Volume II: Section B Species Accounts and page 4.1-36, Volume IV: EIR/EIS). In the Plan there are three biological objectives which will ensure that impacts on this species are mitigated to below a level of significance: 1) include within the Conservation Area at least 147,066 acres of coastal sage scrub and chaparral below 1,520 meters; 2) include within the Conservation Area at least seven (7) Core Areas (see page R-61, Volume II: Section B Species Accounts); 3) include in the Conservation Area suitable microhabitat.

Southern sagebrush lizard is found primarily in open montane areas in the San Jacinto and Santa Rosa Mountains above 5,000 feet. The Plan states that this species will respond to a landscape level of management with site specific requirements (fallen debris and rock piles) and management measures. Implementation of the Plan will result in the loss of approximately 10,246 acres of potential habitat for this species (page R-120 of Volume II: Section B Species Accounts and page 4.1-37 of Volume IV: EIR/EIS). In the Plan there are two biological objectives which will ensure that impacts on this species are mitigated to below a level of significance: 1) include in the Conservation Area at least 41,105 acres of chaparral, coastal sage scrub, desert sage scrub, montane coniferous forest, peninsular juniper woodland and woodlands and forest above 1,500 meters, and, 2) include with the Conservation Area suitable microhabitat (page R-117, Volume II: Section B Species Accounts).

Bell's sage sparrow, southern California rufous-crowned sparrow and coastal California gnatcatcher are all widely distributed throughout the Plan Area in coastal sage scrub, desert scrub and chaparral in the Riverside Lowland and San Jacinto Foothills Bioregions. Implementation of the Plan will result in the loss of approximately 177,440 acres of potential habitat for Bell's sage sparrow; 63,700 acres of potential habitat for the coastal California gnatcatcher; and 70,980 acres of potential primary habitat for the Southern California rufous-crowned sparrow (pages B-26, B-132 and B-463 of Volume II: Section B Species Accounts and pages 4.1-42 and 4.1-41 of Volume IV: EIR/EIS). The Plan (page B-26) states that the distribution and habitat use of Bell's sage sparrow is very similar to that of the coastal California gnatcatcher and Southern California rufous-crowned sparrow. However, each of these species has different biological objectives. In the Plan there are three biological objectives for Bell's sage sparrow which will ensure that impacts on this species are mitigated to below a level of significance. The objectives for Bell's sage sparrow are: 1) include within the Conservation Area 245,750 acres of suitable habitat; 2) include within the Conservation Area at least 12 or 14 Core Areas; and, 3) include specified habitat Linkages (page B-26, Volume II: Section B Species Accounts). In the Plan there are three biological objectives which will ensure that impacts on the coastal California gnatcatcher are mitigated to below a level of significance. The three objectives for the coastal California

gnatcatcher are: 1) include within the Conservation Area at least 77,070 acres of suitable habitat; 2) include within the Conservation Area at least 13 of the specified Core Areas and Linkages; and, 3) maintain (once every three years) continued use of and successful reproduction at 75% of the Core Areas (page B-145, Volume II: Section B Species Accounts). In the Plan there are three biological objectives which will ensure that impacts on Southern California rufous-crowned sparrow are mitigated to below a level of significance. For Southern California rufous-crowned sparrow the objectives are: 1) include within the Conservation Area at least 82,640 acres of suitable primary habitat; 2) include within the Conservation Area at least nine (9) Core Areas and Linkages; and, 3) include within the Conservation Area at least 174,620 acres of suitable secondary habitat (page B-459, Volume II: Section B Species Accounts).

Long-tailed weasel occurs throughout the Plan Area in all types of habitat, including agricultural and disturbed areas primarily in Moreno Valley, Beaumont, Riverside, Pedley, Cherry Valley, Norco and Temecula. Implementation of the Plan will result in the loss of approximately 490,675 acres of potential habitat for this species (page M-79, Volume II: Section B Species Accounts and page 4.1-64 of Volume IV: EIR/EIS). In the Plan there are three biological objectives which will ensure that impacts on this species are mitigated to below a level of significance: 1) include within the Conservation Area at least 474,500 acres of suitable habitat; 2) include 52,400 acres of dispersal and/or movement Linkages between Core Areas; and, 3) maintain the continued use by long-tailed weasel at a minimum of 75 percent of the localities where the species is known to occur (pages M-75 & 76, Volume II: Section B Species Accounts).

Mountain lion occurs in a variety of habitats from the Santa Ana Mountains, San Bernardino Mountains, San Jacinto Mountains, Santa Rosa Mountains and brush foothills and riparian areas that serve as connections. Implementation of the Plan will result in the loss of 132,000 acres of suitable habitat (page M-110, Volume II: Section B Species Accounts and page 4.1-62 of Volume IV: EIR/EIS). In the Plan there are three biological objectives which will ensure that impacts on this species are mitigated to below a level of significance: 1) include in the Conservation Area 319,843 acres of suitable habitat; 2) include within the Conservation Area Linkages indicated on page M-105, Volume II: Section B Species Accounts); and, 3) maintain or improve functionality of dispersal routes in key areas as specified on page M-105.

Take of this specially protected species is not authorized by the NCCP Permit and is prohibited by CDFG Code Section 4800.

Palmer's grapplehook is known from several Core Areas but restricted to particular soil series in chaparral, coastal sage scrub and grassland in the Riverside Lowlands, Santa Ana Mountains and San Jacinto Foothills Bioregions. Implementation of the Plan will result in the loss of approximately 131,300 acres of habitat for this plant (page P-249, Volume II: Section B Species Accounts and page 4.1-74, Volume IV: EIR/EIS). Of the 84 occurrences, 28 may not be conserved. In the Plan there are two biological objectives which will ensure that impacts on this species are mitigated to below a level of significance: 1) include in the Conservation Area at least 90,490 acres of suitable habitat; and, 2) include within the Conservation Area at least 24 of the known occurrences of this species. The Plan states that conservation of this species will be

achieved by inclusion of at least 90,490 acres of suitable habitat and 58 occurrences at 13 localities in Core Areas. Although not a narrow endemic species, Palmer's grapplehook will also benefit from the narrow endemic policies of the Plan (6.1.3 of the Plan and 9.2(2)(8) of Volume IV: EIR/EIS) because of its association with some narrow endemic plants.

The Department finds that issuance of the MSHCP permit could result in significant impacts on these Group 2 Coastal Sage Scrub/Alluvial Fan Sage Scrub/Chaparral and Desert Scrub species and their habitat from development and other covered activities contemplated by the Plan. Likewise, the Department finds that all impacts on these species and their habitat associated with the Department's issuance of the Permit will be avoided or mitigated to below a level of significance under CEQA through adherence to and implementation of the Western Riverside MSHCP. In so doing, the Department's findings under CEQA with respect to these species are consistent with the findings of the lead agency on the same subject (see Final EIR/EIS Sections 4.1, Table 4C, page 4.1-97, page 4.1-145, and Section 4.1.6). The Department's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, monitoring and management program, and species-specific biological objectives, minimization and avoidance measures (MSHCP Sections 5.0, 6.1.2, 6.1.3, 6.1.4, 6.4, 7.0, 9.0 and Volume 2: Section B Species Accounts).

Impact 3.5.7

Approval of the MSHCP authorized under the NCCP Permit could result in potentially significant adverse impacts on these 28 Group 2 High Elevation species: San Bernardino mountain kingsnake (*Lampropeltis zonata parvirubra*); San Diego mountain kingsnake (*Lampropeltis zonata pulchra*), southern rubber boa (*Charina bottae umbratica*); California spotted owl (*Strix occidentalis occidentalis*); Nashville warbler (*Vermivora ruficapilla*); Northern goshawk (*Accipiter gentiles*); Williamson's sapsucker (*Sphyrapicus thyroideus*); beautiful hulsea (*Hulsea vestita* ssp. *callicarpa*); California beardtongue (*Penstemon californicus*); California bedstraw (*Galium californicus* ssp. *primum*); chickweed oxytheca (*Oxytheca caryophylloides*); Cleveland's monkeyflower (*Mimulus clevelandii*); Cliff cinquefoil (*Potentilla rimicola*); Engelmann oak (*Quercus engelmannii*); Graceful tarplant (*Holocarpha virgata* ssp. *elongate*); Hall's monardella (*Monardella macrantha* ssp. *Hallii*); heart-leaved pitcher sage (*Lepechinia cardiophylla*); intermediate mariposa lily (*Calochortus weedii* var. *intermedius*); Jaeger's milk vetch (*Astragalus pachypus* var. *jaegeri*); lemon lily (*Lilium parryi*); Mojave tarplant (*Deinandra mohavensis*); ocellated Humboldt lily (*Lilium humboldtii* ssp. *ocellatum*); Palomar monkeyflower (*Mimulus diffuses*); Plummer's mariposa lily (*Calochortus plummerae*); prostrate spineflower (*Chorizanthe procumbens*); shaggy-haired alumroot (*Heuchera hirsutissima*); small-flowered morning-glory (*Convolvulus simulans*); and sticky-leaved dudleya (*Dudleya viscida*).

Finding 3.5.7

The Department finds that changes or alterations have been required in or incorporated into the MSHCP and CDFG's NCCP Permit which mitigate or

avoid the potential significant impacts of the MSHCP on these Group 2 High Elevation species to below a level of significance. (Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).)

Explanation 3.5.7:

These species are found primarily in United States Forest Service lands, including the Cleveland National Forest and San Bernardino National Forest which total 202,700 acres of conservation. Many of the plants are Forest Service Sensitive species which adds an additional layer of protection (see Group Designation and Rationale in Volume II: Section B Species Accounts). San Bernardino mountain kingsnake, San Diego mountain kingsnake, southern rubber boa, beautiful hulsea, California spotted owl, California bedstraw, chickweed oxytheca, Cleveland's bush monkey flower, cliff cinquefoil, graceful tarplant, lemon lily, ocellated Humboldt lily, Plummer's mariposa lily, shaggy-haired alumroot and sticky-leaved dudleya are all species which have specific requirements to be met before being considered Adequately Conserved (see Table 9-3 of the Plan). Many of these species also require execution of a Memorandum of Understanding, that addresses management of these species, with the Forest Service in order to be considered Covered Species Adequately Conserved (Table 9-3 of the MSHCP).

San Bernardino mountain kingsnake and San Diego mountain kingsnake populations are narrowly defined with the Plan Area. San Diego mountain kingsnake occurs only within the Santa Ana Mountains, Agua-Tibia Mountains, and Desert Transition Bioregions above 500 meters in elevation. San Bernardino mountain kingsnake is found only within the San Bernardino Mountains and San Jacinto Mountains bioregions above 1,500 meters in elevation. Both species are found in rock outcrops, talus and steep shady canyons within coniferous and mixed coniferous, hardwood or riparian woodlands.

Implementation of the Plan will result in the loss of approximately 2,723 acres of potential habitat for the San Diego mountain kingsnake and 7,571 acres of potential habitat for the San Bernardino mountain kingsnake (page R-95, Volume II: Section B Species Accounts and pages 4.1-36 and -37 of Volume IV: EIR/EIS). In the Plan there are two biological objectives which will ensure that impacts on these species are mitigated to below a level of significance: 1) include within the Conservation Area at least 7,708 acres of habitat (see page R-89, Volume II: Section B Species Accounts) for the San Diego mountain king snake and 22,159 acres of habitat (see page R-89) for the San Bernardino mountain kingsnake; and, 2) include within the Conservation Area suitable microhabitat for each respective species. In addition, both species require that the Plan maintain (once every 8 years) the continued use of 75% of the Core Areas (page R-95, Volume II: Section B Species Accounts). These species are also two of 29 species which require a Memorandum of Understanding with the Forest Service to address management in order to become a Covered Species Adequately Conserved (page 9-20 of the Plan).

Southern rubber boa is a species found within the San Jacinto Mountains in fallen debris, rock piles and steep, rocky montane areas above 1,540 meters in elevation. The Plan states that this species will respond to a landscape level of management and that the only known core population

is located on Mount San Jacinto. The Plan states that quantification of take for this species is difficult due to the lack of point data, but approximately 155 acres of potential habitat for this species is outside the Conservation Area (page R-109, Volume II: Section B Species Accounts). In the Plan there is one biological objective which will ensure that impacts on this species are mitigated to below a level of significance: include 2,577 acres of chaparral, grassland, montane coniferous forest, deciduous woodlands and forest above 1,540 meters in elevation. In addition, this species requires that the Plan maintain (once every eight (8) years) the continued use of 75% of the Core Areas (page R-95, Species Accounts). Southern rubber boa is also one of 29 species which requires a Memorandum of Understanding with the Forest Service to address management in order to become a Covered Species Adequately Conserved (page 9-20 of the Plan).

California spotted owl has a sparse distribution in oak woodland and forest and montane coniferous forest in the Santa Ana Mountains, San Bernardino Mountains and San Jacinto Mountains Bioregions of the Plan Area. California spotted owl is considered a Group 2 species because its conservation requires integration of habitat protection with site-specific monitoring and management. Implementation of the Plan will result in the loss of approximately 16,000 acres of potential habitat for this species (page B-113, Volume II: Section B Species Accounts and page 4.1-57, Volume IV: EIR/EIS). In the Plan there are two biological objectives which will ensure that impacts on this species are mitigated to below a level of significance: 1) include 41,370 acres of suitable habitat within the Conservation Area, and, 2) avoid nesting locations within the Conservation Area (page B-109, Volume II: Section B Species Accounts). This species is a San Bernardino National Forest Sensitive Species which entails additional protection and management (page B-108) and is also a species which requires a Memorandum of Understanding with the Forest Service addressing management in order to become a Covered Species Adequately Conserved (page 9-20 of the Plan). This species will benefit from the nest protection policies of the MSHCP (page 5-6 of Section 5.2.1(5) of the MSHCP).

Nashville warbler is a species which is widely distributed in all Bioregions for migrant movements and montane Bioregions for breeding in the San Bernardino National Forest. The Plan states that this species uses a wide variety of habitats for migrant movement and has specified locations that are identified as core breeding season areas. Implementation of the Plan will result in the loss of approximately 240,570 acres of suitable habitat for this species (page B-356, Volume II: Section B Species Accounts and page 4.1-58, Volume IV: EIR/EIS). In the Plan there are three biological objectives which will ensure that impacts on this species are mitigated to below a level of significance: 1) include within the Conservation Area 209,490 acres of suitable breeding habitat (page B-352, Volume II: Section B Species Accounts); 2) include within the Conservation Area at least three (3) Core Areas, as per page B-352; and, 3) include within the Conservation Area 209,290 acres of suitable dispersal or migration habitat and Linkages. In addition, this species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS, and 9.2(2)(4) of the MSHCP.).

Northern goshawk is not widely distributed within southern California, has been documented as occurring as a breeding bird and has been observed in two nest locations within the Conservation

Area. Potential habitat for the goshawk includes deciduous woodland and forest, and coniferous montane forest within the San Bernardino Mountains and San Jacinto Mountain Bioregions. Implementation of the Plan will result in the loss of approximately 12,270 acres of potential habitat outside the Criteria Area and Public/Quasi-Public lands (page B-368, Volume II: Section B Species Accounts and page 4.1-39, Volume IV: EIR/EIS). In the Plan there are three biological objectives which will ensure that impacts on this species are mitigated to below a level of significance: 1) include within the Conservation Area at least 34,020 areas of suitable nesting and wintering habitat; 2) protect and buffer the two known nest sites and any other nest locations; and, 3) maintain the continued use of and successful reproduction at a minimum of 75 percent of the known nesting localities (page B-365, Volume II: Section B Species Accounts). There are no known nest sites outside the Conservation Area and no take of active nests is permitted. The nest protection policies of the MSHCP apply to Northern goshawk (page 5-6 of Section 5.2.1(5) of the Plan). This species is a San Bernardino National Forest Sensitive Species which entails additional protection and management (page B-364).

Williamson's sapsucker conservation is dependent upon activities within the San Bernardino National Forest and the Mt. San Jacinto State Park. Its habitat is montane coniferous forest dominated by lodgepole pines and firs and oak woodlands and forest. Implementation of the Plan will result in the loss of approximately 12,270 acres of habitat for this species (page 603, Volume II: Section B Species Accounts and page 4.1-57, Volume IV: EIR/EIS). In the Plan there are two biological objectives which will ensure that impacts on this species are mitigated to below a level of significance: 1) include within the Conservation Area at least 34,020 acres of suitable breeding, wintering and dispersal habitat; and, 2) include microhabitat for this species in the Conservation Area (page 601, Volume II: Section B Species Accounts). Williamson's sapsucker requires a Memorandum of Understanding with the Forest Service that addresses management in order to become a Covered Species Adequately Conserved (page 9-20 of the Plan).

California bedstraw, cliff cinquefoil, graceful tarplant, lemon lily, ocellated Humboldt lily, Plummer's mariposa lily, and Mojave tarplant are all species which are restricted to the San Jacinto Mountains, primarily on Forest Service lands. Implementation of the MSHCP will result in the loss of potential habitat, as follows: California bedstraw, 9,180 acres; cliff cinquefoil, 10 acres; graceful tarplant, 156,180 acres; lemon lily, 1,170 acres; ocellated Humboldt lily, 3,820 acres; Plummer's mariposa lily, 64,630 acres; and Mojave tarplant, 27,850 acres (pages P-23, P-67, P-114, P-162, P-234 and P-297 of Volume II: Section B Species Account). In the Plan each of these species has a minimum of two biological objectives, except for Cliff cinquefoil, graceful tarplant, Plummer's mariposa lily and Mojave tarplant which have three objectives. These biological objectives will ensure that impacts on these species are mitigated to below a level of significance.

For California bedstraw, the two objectives are: 1) include within the Conservation Area at least 41,420 acres of suitable habitat, and 2) include within the Conservation Area four of the known occurrences (page P-22, Volume II: Section B Species Accounts). For lemon lily the two objectives are: 1) include within the Conservation Area 10,250 acres of suitable habitat, and 2) include within the Conservation Area the six known localities (P-160, Volume II: Section B

Species Accounts). For ocellated Humboldt lily the two objectives are: 1) include within the Conservation Area 7,700 acres of suitable habitat, and 2) include within the Conservation Area four (4) of the known occurrences (see page P-232, Volume II: Section B Species Accounts).

For cliff cinquefoil, the three biological objectives are: include within the Conservation Area at least 1,500 acres of suitable habitat, the two known localities of this species, and confirm five localities of this species as per page P-65, Volume II: Section B Species Accounts. For graceful tarplant the biological objectives are: include within the Conservation Area 129,910 acres of suitable habitat, eight (8) of the known locations (page P-112, Volume II: Section B Species Accounts), and confirm ten (10) localities with 1,000 individuals each. For Plummer's mariposa lily the objectives are: include within the Conservation Area 167,580 acres of suitable habitat, eight (8) of the known occurrences, and confirm six (6) localities with at least 500 individuals each (page P-295, Volume II: Section B Species Accounts). For Mojave tarplant the objectives are: include within the Conservation Area 80,160 acres of suitable habitat, five of the known localities, and at least four localities occupying at least 100 acres (page P-194, Volume II: Section B Species Accounts). Mojave tarplant will benefit from the Riparian/Riverine Areas and Vernal Pool policies of the MSHCP and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS and Addendum, and 9.2(2)(4) of the MSHCP.).

There are quantitative differences in the amount of suitable habitat between the MSHCP/NCCP and the Biological Opinion for cliff cinquefoil and graceful tarplant. Some of these differences are related to whether or not certain bioregions were assumed to be included in the definition of suitable habitat and elevation restrictions placed on the definitions. These different assumptions resulted in different quantitative information but do not alter the conclusions of the effects analyses in either the MSHCP/NCCP or the Biological Opinion because similar levels of Conservation are anticipated in the Riverside Lowlands bioregion in both the MSHCP/NCCP and the Biological Opinion.

California bedstraw, cliff cinquefoil, graceful tarplant, lemon lily, and Plummer's mariposa lily all require a Memorandum of Understanding with the Forest Service that addresses management prior to these species becoming Covered Species Adequately Conserved (page 9-20 of the Plan). Also, California bedstraw, cliff cinquefoil, graceful tarplant, lemon lily and Plummer's mariposa lily are National Forest Sensitive Species which are protected through the implementation of forest plans and the biological evaluation process which considers the potential effects of Forest Service activities on these species (see Group Designation and Rationale for each species in Volume II: Section B Species Accounts). Graceful tarplant, lemon lily, and Mojave tarplant may benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS and Addendum, and 9.2(2)(4) of the MSHCP.).

Beautiful hulsea is a plant which is restricted to the Agua Tibia, San Jacinto Mountains and San Jacinto Foothills Bioregions, primarily in chaparral and lower montane coniferous forests on Forest Service lands. Implementation of the Plan will result in the loss of approximately 36,060

acres of suitable habitat for this species (page P-4, Volume II: Section B Species Accounts and pages 4.1-76 of Volume IV: EIR/EIS). There are three biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area at least 106,440 acres of suitable habitat; 2) include within the Conservation Area at least 12 known occurrences; and, 3) confirm 16 localities with populations of no fewer than 50 individuals each. In addition, this is a species which requires a Memorandum of Understanding with the Forest Service in order to become a Covered Species Adequately Conserved (page 9-20 of the Plan).

California beardtongue is a plant which is restricted to the Desert Transition, San Jacinto Foothills, San Jacinto Mountains, and Santa Ana Mountains, primarily on Forest Service lands in chaparral, coniferous forest, and pinyon-juniper woodland habitats. Implementation of the Plan will result in the loss of approximately 52,100 acres of potential habitat for this species (page P-17, Volume II: Section B Species Accounts and page 4.1-81, Volume IV: EIR/EIS and Addendum). There are two biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area at least 118,110 acres of suitable habitat; and, 2) include within the Conservation Area at least 15 occurrences of this species (page P-15, Volume II: Section B Species Accounts). This species is also designated as a Forest Service Sensitive Species which is protected through the implementation of forest plans and the biological evaluation process which considers the potential effects of Forest Service activities on this species (page P-14).

There are quantitative differences in the amount of suitable habitat between the MSHCP/NCCP and the Biological Opinion for California beardtongue. These differences are primarily related to whether or not certain bioregions were assumed to be included in the definition of suitable habitat, and particularly the Riverside Lowlands bioregion which includes most of the existing urban development in the Plan Area but also includes large remaining habitat areas. These different assumptions resulted in different quantitative information but do not alter the conclusions of the effects analyses in either the MSHCP/NCCP or the Biological Opinion because similar levels of Conservation are anticipated in the Riverside Lowlands bioregion in both the MSHCP/NCCP and the Biological Opinion.

Cleveland's bush monkeyflower is restricted to the Santa Ana and Agua Tibia mountains, primarily on Forest Service lands in chaparral and lower montane coniferous forests. Implementation of the Plan will result in the loss of approximately 790 acres of potential habitat (page P-61, Volume II: Section B Species Accounts and page 4.1-78, Volume IV: EIR/EIS). There are two biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include at least 10,870 acres of suitable habitat; and, 2) include within the Conservation Area the two known localities of this species (page P-59, Volume II: Section B Species Accounts). This species also requires a Memorandum of Understanding with the Forest Service that addresses management in order to become a Covered Species Adequately Conserved (page 9-20 of the Plan).

Engelmann oak is a Group 2 species because of its specialized habitat requirements and limited distribution within the Plan Area to southern oak woodlands and riparian/oak woodlands in the Santa Rosa Plateau area and foothills of the Santa Ana Mountains. Implementation of the Plan will result in the loss of 9,300 acres of the potential habitat for this species (page P-99, Volume II: Section B Species Accounts and page 4.1-82, Volume IV: EIR/EIS). There are three biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area at least 19,070 acres of suitable habitat; 2) include within the Conservation Area at least 33 known occurrences; and, 3) maintain recruitment at a minimum of 80 percent of the conserved populations as per page P-97, Volume II: Section B Species Accounts. In addition, this species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS, and 9.2(2)(4) of the MSHCP.).

Hall's monardella is a Group 2 species because it has a scattered distribution with known occurrences on Forest Service lands. This species is restricted to chaparral, lower montane coniferous forest, woodlands and forest, and valley and foothill grasslands in the Santa Ana Mountains, San Bernardino Mountains and the Agua Tibia Mountains. Implementation of the Plan will result in the loss of 83,530 acres (page P-121, Volume II: Section B Species Accounts and page 4.1-79, Volume IV: EIR/EIS). The two biological objectives which will ensure that impacts to this species are mitigated to below a level of significance are: 1) include in the Conservation Area at least 224,860 acres of suitable habitat, and 2) include within the Conservation Area the five known locations of this species (page P-119, Volume II: Section B Species Accounts). This species is also designated as a Forest Service Sensitive Species which is protected through the implementation of forest plans and the biological evaluation process which considers the potential effects of Forest Service activities on this species (page P-118).

Heart-leaved pitcher sage is a Group 2 species because of its restriction to the Santa Ana Mountains, primarily on Forest Service lands in chaparral and woodlands and forests. Implementation of the MSHCP will result in the loss of approximately 14,560 acres of habitat for this species (page P-136, Volume II: Section B Species Accounts and page 4.1-77, Volume IV: EIR/EIS). There are three biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include in the Conservation Area at least 56,950 acres of suitable habitat; 2) include within the Conservation Area at least six (6) known populations in the Santa Ana Mountains; and, 3) conduct surveys for this species in suitable habitat (page P-133, Volume II: Section B Species Accounts and Section 6.3.2 of the MSHCP). This species is also designated as a Forest Service Sensitive Species which is protected through the implementation of forest plans and the biological evaluation process which considers the potential effects of Forest Service activities on this species (P-132). Heart-leaved pitcher sage is subject to the Additional Survey Needs and Procedures policies of the MSHCP (page 6-63 of Section 6.3.2 and the Criteria Area Species Survey Area Figure 6-2 on page 6-64).

Intermediate mariposa lily is a Group 2 species because of its scattered and restricted distribution within certain habitat associations, dry, rocky open slopes and rock outcrops in coastal scrub and chaparral around Vail Lake and Sierra Peak at specific elevations. Implementation of the Plan

will result in the loss of approximately 147,550 acres of potential habitat for this species (page P-141, Volume II: Section B Species Accounts and page 4.1-69, Volume IV: EIR/EIS). There are two biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include in the Conservation Area at least 195,730 acres of suitable habitat; and, 2) include within the Conservation Area at least two of the known localities as per page P-140, Volume II: Section B Species Accounts. This species shall be considered a Species Adequately Conserved only after the species specific conservation objectives are achieved. This species is also designated as a Forest Service Sensitive Species which is protected through the implementation of forest plans and the biological evaluation process which considers the potential effects of Forest Service activities on this species (P-139).

Jaeger's milk vetch is a Group 2 species because it has a scattered distribution with several Core Areas near Vail Lake, Aguanga Valley, Sage, Temecula Canyon and at the base of the Agua Tibia Mountains in dry ridges and valleys and open sandy or rocky slopes in coastal scrub, chaparral, valley and foothill grassland and cismontane woodland habitats. Implementation of the Plan will result in the loss of approximately 223,800 acres of potential habitat for this species (page P-148, Volume II: Section B Species Accounts and page 4.1-67, Volume IV: EIR/EIS). This is a species endemic to northern San Diego County and southern Riverside County. There are two biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include in the Conservation Area at least 249,440 acres of suitable habitat; and, 2) include in the Conservation Area the seven (7) known localities of this species as per page P-146, Volume II: Section B Species Accounts. This species is also designated as a Forest Service Sensitive Species which is protected through the implementation of forest plans and the biological evaluation process which considers the potential effects of Forest Service activities on this species (P-145).

Ocellated Humboldt lily is a Group 2 species because the known occurrences are concentrated within the Santa Ana and Agua Tibia Mountains, primarily on Forest Service lands in riparian areas in lower montane coniferous forest and coastal chaparral. Implementation of the Plan will result in the loss of approximately 3,280 acres of potential habitat (page P-234, Volume II: Section B Species Account and page 4.1-77, Volume IV: EIR/EIS). The biological objectives which will ensure that impacts to this species are mitigated to below a level of significance are: 1) include within the Conservation Area at least 7,700 acres of suitable habitat; and, 2) include within the Conservation Area at least four of the known locations (page P-232, Volume II: Section B Species Accounts). This species also requires a Memorandum of Understanding with the Forest Service that addresses management in order to become a Covered Species Adequately Conserved (page 9-20 of the Plan). In addition, this species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS, and 9.2(2)(4) of the MSHCP.).

Palomar monkeyflower is a Group 2 species because it has a scattered distribution and known occurrences in chaparral and montane coniferous forest in the Santa Ana, Agua Tibia and San Jacinto Mountains. Implementation of the Plan will result in the loss of approximately 8,940 acres

of potential habitat for this species (page P-257, Volume II: Section B Species Accounts and page 4.1-78, Volume IV: EIR/EIS and Addendum). The biological objectives which will ensure that impacts to this species are mitigated to below a level of significance are: 1) include within the Conservation Area at least 23,800 acres of suitable habitat, and 2) include within the Conservation Area at least 18 of the known locations of this plant in the areas specified on page P-255, Volume II: Section B Species Accounts).

There are quantitative differences in the amount of suitable habitat between the MSHCP/NCCP and the Biological Opinion for Palomar monkeyflower. These differences are primarily related to whether or not certain bioregions were assumed to be included in the definition of suitable habitat, and particularly the Riverside Lowlands bioregion which includes most of the existing urban development in the Plan Area but also includes large remaining habitat areas. These different assumptions resulted in different quantitative information but do not alter the conclusions of the effects analyses in either the MSHCP/NCCP or the Biological Opinion because similar levels of Conservation are anticipated in the Riverside Lowlands bioregion in both the MSHCP/NCCP and the Biological Opinion.

Prostrate spineflower is a Group 2 species because it has a scattered distribution and only one known core population. This species is found in sandy soil and sandy openings in chamise chaparral, coastal sage scrub and grasslands at a certain elevation in the Agua Tibia and Santa Ana Mountains Bioregions. Implementation of the Plan will result in the loss of approximately 31,590 acres of potential habitat for this species (page P-309, Volume II: Section B Species Accounts and page 4.1-71, Volume IV: EIR/EIS). There are two biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area at least 64,000 acres of suitable habitat; and, 2) include within the Conservation Area at least 14 of the known locations as per page P-307 of the Species Account.

Shaggy-haired alumroot is a Group 2 species because it is restricted to the San Jacinto and Santa Rosa Mountains, primarily on Forest Service and State Park lands in rock areas and granite crevices within upper-montane coniferous forest and subalpine coniferous forest. Implementation of the Plan will result in the loss of approximately 2,210 acres of potential habitat for this species (page P-380, Volume II: Section B Species Accounts and page 4.1-75, Volume IV: EIR/EIS). There are two biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area at least 7,760 acres of suitable habitat; and, 2) include within the Conservation Area the two (2) known localities of this plant as per page P-378 of the Species Account. This species is designated as a Forest Service Sensitive Species which is protected through the implementation of forest plans and the biological evaluation process which considers the potential effects of Forest Service activities on this species (P-377). This species also requires a Memorandum of Understanding with the Forest Service that addresses management in order to become a Covered Species Adequately Conserved (page 9-20 of the Plan).

Small-flowered morning-glory is a Group 2 species because it is restricted to particular soils and is known from several Core Areas in the Riverside Lowlands, San Jacinto Foothills and Santa Ana

Mountains Bioregions in open sage scrub and grasslands. Implementation of the Plan will result in the loss of 143,210 acres of potential habitat for this species (page P-405, Volume II: Section B Species Accounts and page 4.1-72, Volume IV: EIR/EIS). There are two biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area at least 100,690 acres of suitable habitat; and, 2) include within the Conservation Area at least eight (8) of the known localities as per page P-403 of the Species Account.

Sticky-leaved dudleya is a Group 2 species because it is restricted to coastal sage scrub and chaparral on north-facing steep, rocky canyon slopes in the Santa Ana Mountains and San Mateo Wilderness Ares. Implementation of the Plan would result in the loss of 26,740 acres of potential habitat for this species (page P-430, Volume II: Section B Species Accounts and page 4.1-73, Volume IV: EIR/EIS and Addendum). There are two biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area at least 71,290 acres of suitable habitat; and, 2) include within the Conservation Area the three populations in the San Mateo Wilderness (page P-429). This species is designated as a Forest Service Sensitive Species which is protected through the implementation of forest plans and the biological evaluation process which considers the potential effects of Forest Service activities on this species (P-428). This species also requires a Memorandum of Understanding with the Forest Service that addresses management in order to become a Covered Species Adequately Conserved (page 9-20 of the Plan).

There are quantitative differences in the amount of suitable habitat between the MSHCP/NCCP and the Biological Opinion for sticky-leaved dudleya. Some of these differences are related to whether or not certain bioregions were assumed to be included in the definition of suitable habitat and elevation restrictions placed on the definitions. These different assumptions resulted in different quantitative information but do not alter the conclusions of the effects analyses in either the MSHCP/NCCP or the Biological Opinion because similar levels of Conservation are anticipated in the Riverside Lowlands bioregion in both the MSHCP/NCCP and the Biological Opinion.

The Department finds that issuance of the MSHCP permit could result in significant impacts on these Group 2 High Elevation species and their habitat from development and other covered activities contemplated by the Plan. Likewise, the Department finds that all impacts on these species and their habitat associated with the Department's issuance of the Permit will be avoided or mitigated to below a level of significance under CEQA through adherence to and implementation of the Western Riverside MSHCP. In so doing, the Department's findings under CEQA with respect to these species are consistent with the findings of the lead agency on the same subject (see Final EIR/EIS Sections 4.1, Table 4C, page 4.1-97, page 4.1-145, and Section 4.1.6 and Addendum). The Department's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, monitoring and management program, and species-specific biological objectives, minimization and avoidance measures (MSHCP Sections 5.0, 6.1.2, 6.1.3, 6.1.4, 6.4, 7.0, 9.0 and Volume 2: Section B Species Accounts).

Impact 3.5.8

Approval of the MSHCP authorized under the NCCP Permit could result in potentially significant adverse impacts on these 10 Group 2 Riparian/Aquatic species: arroyo chub (*Gila orcuttii*); Cooper's hawk (*Accipiter cooperii*); downy woodpecker (*Picoides pubescens*); least Bell's vireo (*Vireo bellii pusillus*); tree swallow (*Tachycineta bicolor*); yellow-breasted chat (*Icteria virens*); yellow warbler (*Dendroica petechia brewsteri*); bobcat (*Lynx rufus*); California black walnut (*Juglens californica* var. *californica*); and Fish's milkwort (*Polygala cornuta* var. *fishiae*).

Finding 3.5.8

The Department finds that changes or alterations have been required in or incorporated into the MSHCP which mitigate or avoid the potential significant impacts of the MSHCP on these Group 2 Riparian/Aquatic species to below a level of significance. (**Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).**)

Explanation 3.5.8:

Arroyo chub is a Group 2 species because it occurs in several locations within the Santa Ana and Santa Margarita watersheds in open water and emergent vegetation in lower gradient streams with sand or mud substrate. Only six drainages currently support this species. Implementation of the Plan will result in the loss of 520 acres of potential habitat for this species (page F-6 & 7, Volume II: Section B Species Accounts and page 4.1-32, Volume IV: EIR/EIS and Addendum). There are five biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area 4,580 acres of habitat; 2) include within the Conservation Area suitable Core Areas for this species and natural stream conditions; 3) include within the Conservation Area specific habitat in the Santa Margarita Watershed (page F-2, Volume II: Section B Species Accounts); 4) Reserve Managers in the watershed will assess the range of the arroyo chub's movements and identify measures to restore and maintain connectivity; and, 5) Reserve Managers in the watershed will undertake research into the species' requirements and identify measures to restore stream conditions and habitat to benefit the species as per page F-3 of the Species Account. This species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS and Addendum, and 9.2(2)(4) of the MSHCP.).

The acreages reflect different flooding conditions/assumptions in the Prado Basin area in the MSHCP/NCCP and Biological Opinion analyses. The MSHCP/NCCP assumed a "normal" rainfall year in this area while the Biological Opinion assumed flooding of the 100-year floodplain in Prado Basin. These different assumptions resulted in different quantitative information but do not alter the conclusions of the effects analysis in either the MSHCP/NCCP or the Biological Opinion because essentially the entire Prado Basin is within public ownership and is assumed to be included in the MSHCP Conservation Area.

As stated in the Addendum the differences in quantitative information in the MSHCP/NCCP and the Biological Opinion do not reflect substantial new information or analysis and do not result in different conclusions regarding the overall MSHCP Conservation Area to be assembled through application of the MSHCP Criteria, the anticipated protection and management of Covered Species, or the severity of effects to Covered Species.

The Cooper's hawk, downy woodpecker, least Bell's vireo, tree swallow, yellow-breasted chat and yellow warbler all are widely distributed in riparian zones in the Plan Area. Basic riparian Core Areas include Prado Basin, the Santa Ana River, San Timoteo Canyon, Temescal Wash, Temecula Creek, Vail Lake, and Wilson Valley. Cooper's hawk, downy woodpecker, tree swallow and yellow warbler also utilize Forest Service lands for foraging and/or breeding. Implementation of the Plan will result in the loss of potential habitat for these species: Cooper's hawk, 22,100 acres; downy woodpecker, 12,710 acres; least Bell's vireo, 2,780 acres; tree swallow 14,580 acres; yellow-breasted chat, 2,780 acres; and yellow warbler, 12,710 acres (pages B-158, 189, 260, 511, 628 and 640, Volume II: Section B Species Accounts, and pages 4.1-38, 4.1-55, 4.1-57, 4.1-50 and 4.1-58 of Volume IV: EIR/EIS).

Most of these species have the two basic biological objectives of conserving a specified number of acres and number of Core Areas. There are two biological objectives for Cooper's hawk which will ensure that impacts to this species are mitigated to below a level of significance: include within the Conservation Area 54,580 acres of suitable habitat and 10 Core Areas as specified (page B-155, Volume II: Section B Species Accounts). There are three biological objectives for the downy woodpecker which will mitigate impacts to this species to below a level of significance: 1) include within the Conservation Area 34,080 acres of suitable habitat; 2) include within the Conservation Area five (5) Core Areas and Linkages (page B-186, Volume II: Section B Species Accounts); and, 3) include within the Conservation Area microhabitat. Least Bell's vireo has four biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area 9,430 acres of suitable habitat; 2) include within the Conservation Area at least eight (8) Core Areas and Linkages; 3) include within the Conservation Area additional areas identified as important to this species; and, 4) within the Conservation Area maintain (once every three (3) years) the continued use of and successful reproduction at 75 percent of the known vireo occupied habitat (pages B-256 and B-257, Volume II: Section B Species Accounts). There are three biological objectives for the tree swallow which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area 44,420 acres of habitat; 2) include within the Conservation Area the six (6) known Core Areas including breeding populations; and, 3) include within the Conservation Area microhabitat (page B-508, Volume II: Section B Species Account). There are three biological objectives for the yellow-breasted chat which will mitigate impacts to this species to below a level of significance: 1) include within the Conservation Area 9,430 acres of suitable habitat; 2) include within the Conservation Area at least five Core Areas; and, 3) maintain (once every five years) the continued use of and successful reproduction at 75 percent of the Core Areas (page 625, Volume II: Section B Species Accounts). There are three biological objectives for yellow warbler which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area 34,080 acres

of suitable habitat; 2) include within the Conservation Area nine (9) Core Areas; and, 3) maintain (once every five years) the continued use of and successful reproduction at 75 percent of the Core Areas (page B-636, Volume II: Section B Species Accounts).

These species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS, and 9.2(2)(4) of the MSHCP.). In addition, Cooper's hawk will benefit from the nest protection policies of the MSHCP (page 5-6 of Section 5.2.1(5) of the MSHCP).

Bobcat is found throughout the Plan Area and requires large expanses of brushy and rocky habitats near springs or other water sources, as well as Linkages for dispersal. Implementation of the Plan will result in the loss of 347,000 acres of suitable habitat (page M-24, Volume II: Section B Species Accounts and page 4.1-63, Volume IV: EIR/EIS). There are three biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area at least 469,063 acres of suitable habitat; 2) include Linkages within the Conservation Area as specified on page M-21, Volume II: Section B Species Account; and, 3) maintain or improve dispersal routes and evaluate the under-crossings specified on page M-21 of the Species Account.

California black walnut is a Group 2 species because of its specialized habitat requirements and limited distribution in the Plan Area in woodlands and riparian woodlands in the Santa Ana Mountains Bioregion. Implementation of the Plan will result in the loss of 3,830 acres of suitable habitat (page P-30, Volume II: Section B Species Accounts and page 4.1-76, Volume IV: EIR/EIS). There are two biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include in the Conservation Area at least 6,100 acres of suitable habitat; and, 2) include within the Conservation Area at least seven (7) known occurrences of this species at locations designated on page P-28, Volume II: Section B Species Account. In addition, this species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS, and 9.2(2)(4) of the MSHCP.).

Fish's milkwort is a Group 2 species because of its restriction to cismontane oak woodlands and riparian woodlands along the eastern slopes of the Santa Ana Mountains and possibly the northern slopes of the Agua Tibia Mountains. There are 198,790 acres of potential habitat for this species. Implementation of the Plan will result in the loss of 75,210 acres of potential habitat (page P-107, Volume II: Section B Species Accounts and page 4.1-82, Volume IV: EIR/EIS). There are three biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include in the Conservation Area at least 123,580 acres of suitable habitat; 2) include within the Conservation Area at least three (3) of the known localities of this species; and, 3) within the Conservation Area confirm at least 10 localities with at least 50 individuals. This species also requires that Biological Objective 3 be satisfied in order for Fish's milkwort to become a Covered Species Adequately Conserved (P-105, Volume II: Section B Species Accounts). In addition, this species will benefit from the Riparian/Riverine Areas and Vernal Pool

policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS, and 9.2(2)(4) of the MSHCP.).

The Department finds that issuance of the MSHCP permit could result in significant impacts on these Group 2 Riparian/Aquatic species and their habitat from development and other covered activities contemplated by the Plan. Likewise, the Department finds that all impacts on these species and their habitat associated with the Department's issuance of the Permit will be avoided or mitigated to below a level of significance under CEQA through adherence to and implementation of the Western Riverside MSHCP. In so doing, the Department's findings under CEQA with respect to these species are consistent with the findings of the lead agency on the same subject (see Final EIR/EIS Sections 4.1, Table 4C, page 4.1-97, page 4.1-145, and Section 4.1.6 and Addendum). The Department's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, monitoring and management program, and species-specific biological objectives, minimization and avoidance measures (MSHCP Sections 5.0, 6.1.2, 6.1.3, 6.1.4, 6.4, 7.0, 9.0 and Volume 2: Section B Species Accounts).

Impact 3.5.9

Approval of the MSHCP authorized under the NCCP Permit could result in potentially significant adverse impacts on these Group 2 Vernal Pool/Aquatic species: vernal barley (*Hordeum intercedens*); western spadefoot (*Scaphiopus hammondi*); and California muhly (*Muhlenbergia californica*).

Finding 3.5.9

The Department finds that changes or alterations have been required in or incorporated into the MSHCP and CDFG's NCCP Permit which mitigate or avoid the potential significant impacts of the MSHCP on these Group 2 Vernal Pool/Aquatic species to below a level of significance. (**Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).**)

Explanation 3.5.9:

Western spadefoot is widely distributed throughout the Riverside Lowlands and San Jacinto Foothills Bioregions in vernal pools or other standing water free of exotic species, with adjacent secondary habitat including adjacent chaparral, sage scrub, grassland and alluvial scrub habitats. Implementation of the Plan will result in the loss of 1,162 acres of suitable habitat (page A-66, Volume II: Section B Species Accounts and page 4.1-33, Volume IV: EIR/EIS). There are four biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area at least 6,749 acres of primary habitat; 2) include within the Conservation Area at least six (6) Core Areas (page A-63, Volume II: Section B Species Account); 3) include within the Conservation Area at least 377,183 acres of suitable secondary habitat adjacent to primary habitat; and, 4) maintain successful reproduction at a minimum of 75% of the conserved breeding locations once every eight (8) years. In addition, this species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS, and 9.2(2)(4) of the MSHCP.).

Vernal Barley is a Group 2 species because of its limited geographic distribution and specialized habitat requirements and management requirements for floodplain processes. There are 12 known populations concentrated in two areas, the San Jacinto River near Perris and the upper Salt Creek drainage near Hemet. Implementation of the Plan will result in the loss of 1,370 acres of suitable habitat (page P-456, Volume II: Section B Species Accounts and page 4.1-75, Volume IV: EIR/EIS and Addendum). There are four biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area at least 6,900 acres of suitable habitat in indicated locations; 2) include within the Conservation Area at least four (4) locations of vernal barley in indicated locations; 3) include the floodplain in conserved areas and maintain floodplain processes; and 4) include within the Conservation Area the floodplain along Salt Creek in its existing condition (page P-454, Volume II: Section B Species Account). In addition, this species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS and Addendum, and 9.2(2)(4) of the MSHCP.).

The MSHCP used specific "models" for vernal barley and did not consolidate or generalize factors such as clayey soils, alkali soils and Santa Rosa Plateau basalt flows. These different assumptions resulted in different quantitative information but do not alter the conclusions of the effects analyses in either the MSHCP/NCCP or the Biological Opinion because the analyses in both the MSHCP/NCCP and the Biological Opinion assumed similar levels of conservation of the factors considered in the models including clayey soils, alkali soils and Santa Rosa Plateau basalt flows.

As stated in the Addendum the differences in quantitative information in the MSHCP/NCCP and the Biological Opinion do not reflect substantial new information or analysis and do not result in different conclusions regarding the overall MSHCP Conservation Area to be assembled through application of the MSHCP Criteria, the anticipated protection and management of Covered Species, or the severity of effects to Covered Species.

California muhly is a Group 2 species because of its wide distribution within specific habitat associations. Potential habitat for this species includes chaparral, coastal sage scrub, montane coniferous forest, meadow, and meadow/marshes. Implementation of the Plan will result in the loss of 221,350 acres of suitable habitat (page P-38, Volume II: Section B Species Accounts and page 4.1-79, Volume IV: EIR/EIS). There are 3 biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area at least 368,200 acres of suitable habitat; 2) include within the Conservation Area the known locations (page P-36, Volume II: Section B Species Account); and, 3) confirm 10 localities containing at least 50 clumps. Compliance with biological objective number 4 must be satisfied prior to California muhly becoming a Covered Species Adequately Conserved. In addition, this species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS, and 9.2(2)(4) of the MSHCP.).

The Department finds that issuance of the MSHCP permit could result in significant impacts on these Group 2 Riparian/Aquatic species and their habitat from development and other covered activities contemplated by the Plan. Likewise, the Department finds that all impacts on these species and their habitat associated with the Department's issuance of the Permit will be avoided or mitigated to below a level of significance under CEQA through adherence to and implementation of the Western Riverside MSHCP. In so doing, the Department's findings under CEQA with respect to these species are consistent with the findings of the lead agency on the same subject (see Final EIR/EIS Sections 4.1, Table 4C, page 4.1-97, page 4.1-145, and Section 4.1.6 and Addendum). The Department's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, monitoring and management program, and species-specific biological objectives, minimization and avoidance measures (MSHCP Sections 5.0, 6.1.2, 6.1.3, 6.1.4, 6.4, 7.0, 9.0 and Volume 2: Section B Species Accounts).

Impact 3.5.10

Approval of the MSHCP authorized under the NCCP Permit could result in potentially significant adverse impacts on these Group 2 Wetland/Marsh/Lake species: American bittern (*Botaurus lentiginosus*); black crowned night heron (*Nycticorax nycticorax*); double-crested cormorant (*Phalacrocorax auritus*); great blue heron (*Ardea herodias*); osprey (*Pandion haliaetus*); and white-faced ibis (*Plegadis chihi*).

Finding 3.5.10

The Department finds that changes or alterations have been required in or incorporated into the MSHCP and CDFG's NCCP Permit which mitigate or avoid the potential significant impacts of the MSHCP on these Group 2 Wetland/Marsh/Lake species to below a level of significance. (**Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).**)

Explanation 3.5.10:

American bittern is sparsely-distributed throughout the Plan Area but is not predictably found in all suitable areas. It inhabits margins surrounding open water bodies and freshwater marshes with emergent vegetation in the Mystic Lake/San Jacinto Wildlife Area, Santa Ana River/Prado Basin, and Collier Marsh. Implementation of the Plan will result in the loss of 60 acres of suitable habitat (page B-4, Volume II: Section B Species Accounts and page 4.1-44, Volume IV: EIR/EIS). There are four biological objectives which will mitigate impacts to this species to below a level of significance: 1) include within the Conservation Area at least 410 acres of suitable nesting and foraging habitat; 2) include within the Conservation Area at least three (3) Core Areas, as per page B-2, Volume II: Section B Species Account; 3) establish a 100-meter buffer around emergent vegetation; and 4) maintain the continued use of 50% of Core Areas every eight (8) years (page B-2). In addition, this species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS, and 9.2(2)(4) of the MSHCP.).

Black-crowned night heron is a Group 2 species because it is relatively well-distributed throughout the Plan Area but is not predictably distributed within all suitable habitat. It is found in Mystic Lake/San Jacinto Wildlife Area, Prado Basin/Santa Ana River, and Collier Marsh at open water bodies where emergent or riparian vegetation is present. Implementation of the Plan will result in the loss of 2,840 acres of suitable habitat (page B-45, Volume II: Section B Species Accounts and page 4.1-52, Volume IV: EIR/EIS). There are three biological objectives which will mitigate impacts to this species to below a level of significance: 1) include within the Conservation Area at least 16,560 acres of suitable nesting and foraging habitat; 2) include within the Conservation Area the three (3) known and historic breeding locations; and, 3) utilize a 100-meter buffer around Core Areas identified in objective 2 (see page B-42). In addition, this species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS, and 9.2(2)(4) of the MSHCP).

Double-crested cormorant, great blue heron and osprey occur in open water bodies in the Plan Area. Possible core locations include the Santa Ana River, Lake Mathews, Lake Elsinore, Canyon Lake, Vail Lake, Lake Skinner, Lake Perris, Mystic Lake and Lake Hemet. Implementation of the Plan will result in the loss of suitable habitat for these species: double-crested cormorant, 2,180 acres; osprey, 2,140 acres; and great blue heron, 2,840 acres (pages B-174, -399, and -242, Volume II: Section B Species Accounts and pages 4.1-55, 4.1-54, and 4.1-43, Volume IV: EIR/EIS). Each species includes biological objectives which will ensure that impacts are mitigated to below a level of significance. For double-breasted cormorant the two biological objectives are: include within the Conservation Area 16,100 acres of open water habitat within seven open water bodies and include the known double-crested cormorant rookery (page B-172, Volume II: Section B Species Accounts). For great blue heron the biological objectives are: 1) include within the Conservation Area 16,560 acres of suitable habitat; 2) include within the Conservation Area the three (3) known breeding locations; and 3) establish a 100-meter buffer around Objective 2 Core Areas (page B-239, Volume II: Section B Species Accounts). For osprey the biological objectives are: 1) include within the Conservation Area 10,340 acres of open water habitat; 2) include within the Conservation Area 5,520 acres of suitable riparian and open water habitat in the Prado Basin and Santa Ana River; and 3) establish a 100-meter buffer around water bodies identified in objective 1 (page B-397, Volume II: Section B Species Accounts). These species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS, and 9.2(2)(4) of the MSHCP.). In addition, osprey is subject to the nest protection policies of the MSHCP (page 5-6 of Section 5.2.1(5) of the MSHCP).

White-faced ibis is a Group 2 species because it is sparsely distributed throughout the Riverside Lowlands Bioregion, occurs at some freshwater marsh habitat and utilizes a wide variety of habitats for foraging. Implementation of the Plan will result in the loss of 60 acres of suitable habitat for this species (page B-576, Volume II: Section B Species Accounts and page 4.1-56, Volume IV: EIR/EIS). Two documented breeding locations are Prado Basin and Mystic Lake/San Jacinto Wildlife Area. There are three biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include in the

Conservation Area at least 340 acres of suitable primary breeding habitat; 2) include in the Conservation Area the two (2) known breeding locations; and, 3) include in the Conservation Area at least 57,620 acres of suitable secondary foraging habitat (riparian, vernal pools, playas, agriculture, etc.) (page B-573, Volume II: Section B Species Accounts). In addition, this species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS, and 9.2(2)(4) of the MSHCP.).

The Department finds that issuance of the MSHCP permit could result in significant impacts on these Group 2 Wetland/Marsh/Lake species and their habitat from development and other covered activities contemplated by the Plan. Likewise, the Department finds that all impacts on these species and their habitat associated with the Department's issuance of the Permit will be avoided or mitigated to below a level of significance under CEQA through adherence to and implementation of the Western Riverside MSHCP. In so doing, the Department's findings under CEQA with respect to these species are consistent with the findings of the lead agency on the same subject (see Final EIR/EIS Sections 4.1, Table 4C, page 4.1-97, page 4.1-145, and Section 4.1.6). The Department's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, monitoring and management program, and species-specific biological objectives, minimization and avoidance measures (MSHCP Sections 5.0, 6.1.2, 6.1.3, 6.1.4, 6.4, 7.0, 9.0 and Volume 2: Section B Species Accounts).

Impact 3.5.11

Approval of the MSHCP authorized under the NCCP Permit could result in potentially significant adverse impacts on these Group 2 Grassland species: California horned lark, (*Eremophila alpestris actia*); golden eagle (*Aquila chrysaetos*); grasshopper sparrow (*Ammodramus savannarum*); loggerhead shrike (*Lanius ludovicianus*); white-tailed kite (*Elanus leucurus*); Stephens' kangaroo rat (*Dipodomys stephensi*); and long-spined spineflower (*Chorizanthe polygonoides* var *longispina*).

Finding 3.5.11

The Department finds that changes or alterations have been required in or incorporated into the MSHCP and CDFG's NCCP Permit which mitigate or avoid the potential significant impacts of the MSHCP on these Group 2 Grassland species to below a level of significance. (**Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).**)

Explanation 3.5.11:

California horned lark, grasshopper sparrow, loggerhead shrike and white-tailed kite are all bird species which are widely distributed in the Plan Area in a variety of habitats. Implementation of the Plan will result in the loss of suitable habitat for this species: California horned lark, 284,800 acres; grasshopper sparrow, 93,350 acres; loggerhead shrike, 318,540 acres; and white-tailed kite, 400,190 acres (pages B-100, B-228, B-295, B-590, Volume II: Section B Species Accounts and pages 4.1-48, 4.1-41, 4.1-51, and 4.1-48, Volume IV: EIR/EIS).

All these species have biological objectives which will ensure that impacts to these species are mitigated to below a level of significance. Each species has an objective for conservation of acreage: for California horned lark 153,750 acres; for grasshopper sparrow 38,690 acres; for loggerhead shrike 167,590 acres; and, for white-tailed kite 19,880 acres. The second biological objective for California horned lark is to include within the Conservation Area at least three (3) Core Areas and a portion of a fourth (page B-97 and B-98). Biological objective 2 for grasshopper sparrow is a requirement to maintain occupancy within 3 large Core Areas (100%) and at least 3 of the 4 smaller Core Areas (75%) in at least 1 year out of any 5 consecutive years. In order for grasshopper sparrow to become a Covered Species Adequately Conserved, the requirements in Objective 2 on page B-225, Volume II: Section B Species Accounts must be satisfied. There are two additional biological objectives for loggerhead shrike (page B-291). The second biological objective for loggerhead shrike is to include within the Conservation Area at least 8 of 12 breeding and foraging locations constituting Core Areas. The third biological objective is to maintain (once every 8 years) the continued use of and successful reproduction within 75% of Core Areas identified for this species.

There are four additional biological objectives for white-tailed kite (a state fully protected species), pages B-586 and B-587, Volume II: Section B Species Accounts. Objective 2 is a requirement that there be at least 10 breeding locations in designated areas. Objective 3 is a requirement to include within the Conservation Area 281,890 acres of suitable foraging habitat. Objective 4 requires buffers and protection from disturbance of the known winter roost location and any other identified roost locations. Objective 5 is a requirement to maintain (once every 3 years) the continued use of and successful reproduction at 75% of the core breeding areas. In addition, white-tailed kite will benefit from the Riparian/Riverine Areas and Vernal Pool policies of the MSHCP (Sections 9.2(2)(7) and 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS), Best Management Practices of the MSHCP (Section 9.2(2)(4) of the MSHCP), and nest protection policy (Section 5.2.1(5)).

Take of this state listed fully protected species is not authorized by the NCCP Permit and is prohibited by the CDFG Code except in certain limited situations (see Fish and Game Code Sections 3511, 4700, 5050, and 5515).

Golden Eagle is a state fully protected species. It is widely distributed as a foraging species throughout the Plan Area, with several known nesting sites. Implementation of the Plan will result in the loss of an estimated 191,770 acres of potential habitat for the golden eagle (page B-212, Volume II: Section B Species Accounts and 4.1-42, Volume IV: EIR/EIS). There are three biological objectives which will ensure that impacts to this species are mitigated to below a level of significance (page B-208, Volume II: Section B Species Accounts): 1) include within the Conservation Area at least 164,390 acres of suitable foraging habitat; 2) include within the Conservation Area and protect from disturbance the known nesting locations; and, 3) maintain (once every eight (8) years) the continued use of and successful reproduction at 75% of the known nesting localities. This species will benefit from the nest protection policies of the MSHCP (page 5-6 of Section 5.2.1(5) of the MSHCP).

Take of this state listed fully protected species is not authorized by the NCCP Permit and is prohibited by the CDFG Code except in certain limited situations (see Fish and Game Code Sections 3511, 4700, 5050, and 5515).

Stephens' kangaroo rat is widespread throughout the Plan Area with main blocks of occupied habitat in Core Areas that must be conserved. Also required are specific monitoring and management measures to track population densities and maintain open, sparse grassland habitat. Implementation of the Plan will result in the loss of 12,940 acres of habitat (page M-203, Volume II: Section B Species Accounts). There are three biological objectives which will ensure that impacts to this species are mitigated to below a level of significance (page M-198): 1) include within the Conservation Area at least 15,000 acres of occupied habitat as measured in any consecutive eight-year (8) period in a minimum of six (6) Core Areas within the Stephens' kangaroo rat HCP; 2) include at least 3,000 acres of occupied habitat in any eight-year (8) period in a minimum of two (2) Core Areas outside the kangaroo rat HCP; and, 3) maintain at least 30% of the occupied habitat at a population density of medium or higher as per page M-198 of the Species Account.

The MSHCP/NCCP analysis focused on occupied habitat as defined through extensive work on this species conducted throughout the MSHCP/NCCP Area. The Biological Opinion developed a suitable habitat "model" using vegetation and other relevant environmental factors. The analysis in the MSHCP/NCCP is therefore more reflective of known occupied habitat within the Plan Area while the analysis in the Biological Opinion predicts suitable habitat. The Biological Opinion analysis notes that suitable habitat is likely overestimated based on the model developed for the Opinion. These different assumptions resulted in different quantitative information but do not alter the conclusions of the effects analysis in either the MSHCP/NCCP or the Biological Opinion because similar levels of conservation of both known occupied areas and predicted suitable habitat are anticipated in both the MSHCP/NCCP and the Biological Opinion.

As stated in the Addendum the differences in quantitative information in the MSHCP/NCCP and the Biological Opinion do not reflect substantial new information or analysis and do not result in different conclusions regarding the overall MSHCP Conservation Area to be assembled through application of the MSHCP Criteria, the anticipated protection and management of Covered Species, or the severity of effects to Covered Species.

Long-spined spineflower has a fairly wide distribution within specific soil restrictions and two core locations, but is most prevalent in the vicinity of Lake Mathews and the Agua Tibia Mountains. It can be found in southern needlegrass grassland and openings in coastal sage scrub and chaparral on clay or rocky soils. Implementation of the Plan will result in the loss of 309,020 acres of potential habitat (page P-179, Volume II: Section B Species Accounts and page 4.1-71, Volume IV: EIR/EIS). There are two biological objectives which will ensure that impacts to this species are mitigated to below a level of significance (page P-176): 1) include within the Conservation Area at least 389,510 acres of suitable habitat, as per page P-176 of the Plan; and, 2) include within the Conservation Area at least 32 locations of this species, including the two (2) main Core Areas.

The Department finds that issuance of the MSHCP permit could result in significant impacts on these Group 2 Grassland species and their habitat from development and other covered activities contemplated by the Plan. Likewise, the Department finds that all impacts on these species and their habitat associated with the Department's issuance of the Permit will be avoided or mitigated to below a level of significance under CEQA through adherence to and implementation of the Western Riverside MSHCP. In so doing, the Department's findings under CEQA with respect to these species are consistent with the findings of the lead agency on the same subject (see Final EIR/EIS Sections 4.1, Table 4C, page 4.1-97, page 4.1-145, and Section 4.1.6 and Addendum). The Department's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, monitoring and management program, and species-specific biological objectives, minimization and avoidance measures (MSHCP Sections 5.0, 6.1.2, 6.1.3, 6.1.4, 6.4, 7.0, 9.0 and Volume 2: Section B Species Accounts).

Impact 3.5.12

Approval of the MSHCP authorized under the NCCP Permit could result in potentially significant adverse impacts on these Group 2 Different Sampling Strategy species: Parry's spineflower (*Chorizanthe parryi* var. *parryi*); peninsular spineflower (*Chorizanthe leptotheca*); rainbow manzanita (*Arctostaphylos rainbowensis*); and small-flowered microseris (*Microseris douglasii* var. *platycarpha*).

Finding 3.5.12

The Department finds that changes or alterations have been required in or incorporated into the MSHCP and CDFG's NCCP Permit which mitigate or avoid the potential significant impacts of the MSHCP on these Group 2 Different Sampling Strategy species to below a level of significance. (**Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).**)

Explanation 3.5.12:

These are four (4) plant species that may require a different sampling strategy due to rarity of occurrence, seasonality, geographic location or other restriction. The requirements of the Additional Survey Needs and Procedures are found in Sections 6.1.3, 6.3.2 and 9.2(2)(9) of the Plan.

Parry's spineflower is a Group 2 species because it has a patchy distribution, specialized habitat requirements and management requirements for floodplain processes. It is found primarily on alluvial floodplains and alluvial chaparral and scrub in the Santa Ana, Agua Tibia, San Bernardino and San Jacinto Mountains. Core locations have not been identified. Implementation of the Plan will result in the loss of approximately 127,100 acres of potential habitat (page P-278, Volume II: Section B Species Accounts and page 4.1-70, Volume IV: EIR/EIS). There are three biological objectives which will ensure that impacts to this species are mitigated to below a level of significance (page P-276): 1) include within the Conservation Area 218,603 acres of suitable habitat; 2) include within the Conservation Area 20 occurrences of this species; and, 3) confirm

10 localities with at least 1,000 individuals (page P-276 of the Plan). This species is designated as a Forest Service Sensitive Species and is protected through the implementation of forest plans and the biological evaluation process which considers the potential effects of Forest Service activities on this species (P-275). This species will benefit from the Riparian/Riverine Areas and Vernal Pool policies of the MSHCP (Sections 9.2(2)(7) and 6.1.2 of the MSHCP), Best Management Practices of the MSHCP (Section 9.2(2)(4) of the MSHCP), and Additional Survey Needs and Procedures 6.1.3, 6.3.2, 9.2(22)(9) of the MSHCP and 4.1-85 of the EIR/EIS.

Peninsular spineflower is a Group 2 species because it has a patch distribution within the Plan Area. It is found on granitic-derived or alluvial surfaces in open areas in the San Bernardino Mountains, San Jacinto Mountains, Agua Tibia Mountains, Temescal Canyon and Santa Ana Mountains. At high elevations it is associated with chaparral, sage scrub and coniferous forest openings. At lower elevations it is associated with old formation alluvial benches.

Implementation of the Plan will result in the loss of approximately 78,150 acres of potential habitat (page P-291, Volume II: Section B Species Accounts and page 4.1-70, Volume IV: EIR/EIS). The biological objectives will ensure that impacts to this species are mitigated to below a level of significance (page P-289): 1) include within the Conservation Area at least 206,010 acres of suitable habitat; and, 2) confirm 10 localities with at least 1,000 individuals. Core locations have not been identified. This species also requires a Memorandum of Understanding with the Forest Service that addresses management in order to become a Covered Species Adequately Conserved (page 9-20 of the Plan).

Rainbow manzanita is a Group 2 species because of its specialized habitat and soils requirements and scattered distribution. It is found on ultramafic southern mixed chaparral on gabbro soils or related soils and restricted to the eastern slopes of the Santa Ana Mountains and the northern slopes of the Agua Tibia Mountains. Implementation of the Plan will result in the loss of approximately 29,920 acres of potential habitat (page P-317, Volume II: Section B Species Accounts and page 4.1-67, Volume IV: EIR/EIS). There are three (3) biological objectives which will ensure that impacts to this species are mitigated to below a level of significance (page P-315): 1) include within the Conservation Area at least 37,260 acres of suitable habitat; 2) include within the Conservation Area the 15 known localities; and, 3) confirm 10 localities with more than 50 individuals each. This species is designated as a Forest Service Sensitive Species and is protected through the implementation of forest plans and the biological evaluation process which considers the potential effects of Forest Service activities on this species (P-314). This species also requires a Memorandum of Understanding with the Forest Service that addresses management in order to become a Covered Species Adequately Conserved (page 9-20 of the Plan).

Small-flowered microseris has a scattered distribution, is known from several Core Areas and is restricted to particular soils series. It is associated with perennial grasslands on clay lenses and on the periphery of vernal pools in the western portion of the Plan Area. Implementation of the Plan will result in the loss of approximately 94,380 acres of potential habitat (page P-397, Volume II: Section B Species Accounts and page 4.1-78, Volume IV: EIR/EIS). There are three biological objectives which will ensure that impacts to this species are mitigated to below a level of significance (page P-394): include within the Conservation Area 45,290 acres of suitable habitat;

2) include within the Conservation Area eight (8) of the known locations; and, 3) confirm 10 localities with at least 1,000 individuals within the Conservation Area. Take of this species is contingent upon demonstration of compliance with Objective 3 (P-393).

The Department finds that issuance of the MSHCP permit could result in significant impacts on these Group 2 Different Sampling Strategy species and their habitat from development and other covered activities contemplated by the Plan. Likewise, the Department finds that all impacts on these species and their habitat associated with the Department's issuance of the Permit will be avoided or mitigated to below a level of significance under CEQA through adherence to and implementation of the Western Riverside MSHCP. In so doing, the Department's findings under CEQA with respect to these species are consistent with the findings of the lead agency on the same subject (see Final EIR/EIS Sections 4.1, Table 4C, page 4.1-97, page 4.1-145, and Section 4.1.6). The Department's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, monitoring and management program, and species-specific biological objectives, minimization and avoidance measures (MSHCP Sections 5.0, 6.1.2, 6.1.3, 6.1.4, 6.4, 7.0, 9.0 and Volume 2: Section B Species Accounts).

Impact 3.5.13

Approval of the MSHCP authorized under the NCCP Permit could result in potentially significant adverse impacts on these Group 3 Coastal Sage Scrub species: Cactus wren (*Campylorhynchus brunneicapillus*); and Brand's phacelia (*Phacelia stellaris*).

Finding 3.5.13

The Department finds that changes or alterations have been required in or incorporated into the MSHCP and CDFG's NCCP Permit which mitigate or avoid the potential significant impacts of the MSHCP on these Group 3 Coastal Sage Scrub species to below a level of significance. (**Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).**)

Explanation 3.5.13:

Group 3 species are those where coverage is warranted based upon site specific considerations and the identification of specific conservation and management conditions for species within a narrowly defined habitat or limited geographic area within the Plan Area.

Cactus wren is a Group 3 species because it is narrowly distributed at a few locations. It is found in patches of cactus-dominated sage scrub habitat in the Riverside Lowland and San Jacinto Foothill Bioregions. Implementation of the Plan will result in the loss of 63,700 acres of potential habitat for this species (page B-88, Volume II: Section B Species Accounts and page 4.1-45, Volume IV: EIR/EIS). There are three biological objectives which will ensure that impacts to this species are mitigated to below a level of significance (page B-84): 1) include within the Conservation Area at least 77,070 acres of suitable habitat; 2) include within the Conservation Area at least 11 Core Areas and Linkages; and, 3) include within the Conservation Area microhabitat in potential nesting habitat. This species is designated as a Forest Service Sensitive

Species and is protected through the implementation of forest plans and the biological evaluation process which considers the potential effects of Forest Service activities on this species (page 9-20 of the Plan).

Brand's phacelia is a Group 3 species because of its limited geographic distribution, specialized habitat requirements, and management requirements for floodplain processes. It is restricted to sandy benches along the Santa Ana River. Implementation of the Plan will result in the loss of 11,800 acres of potential habitat for this species (page P-11, Volume II: Section B Species Accounts and page 4.1-81, Volume IV: EIR/EIS and Addendum). There are three biological objectives which will ensure that impacts to this species are mitigated to below a level of significance (page P-9): 1) include within the Conservation Area at least 6,100 acres of suitable habitat; 2) include within the Conservation Area the two known localities; and, 3) conduct surveys as part of the project review process for public and private projects within the Narrow Endemic Plant Species survey area (see Narrow Endemic Plant Species Survey Area Map, Figure 6-1 of the Plan). In addition, this species will benefit from the Riparian/Riverine Areas and Vernal Pool policies (Sections 9.2(2)(7) and 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS and Addendum), Best Management Practices (Section 9.2(2)(4) of the MSHCP) and the Protection of Narrow Endemic Plant Species policies (Sections 6.1.3 and 9.2(2)(8) of the MSHCP).

The Department finds that issuance of the MSHCP permit could result in significant impacts on these Group 3 Coastal Sage Scrub species and their habitat from development and other covered activities contemplated by the Plan. Likewise, the Department finds that all impacts on these species and their habitat associated with the Department's issuance of the Permit will be avoided or mitigated to below a level of significance under CEQA through adherence to and implementation of the Western Riverside MSHCP. In so doing, the Department's findings under CEQA with respect to these species are consistent with the findings of the lead agency on the same subject (see Final EIR/EIS Sections 4.1, Table 4C, page 4.1-97, page 4.1-145, and Section 4.1.6 and Addendum). The Department's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, monitoring and management program, and species-specific biological objectives, minimization and avoidance measures (MSHCP Sections 5.0, 6.1.2, 6.1.3, 6.1.4, 6.4, 7.0, 9.0 and Volume 2: Section B Species Accounts).

There are quantitative differences in the amount of suitable habitat between the MSHCP/NCCP and the Biological Opinion for Brand's phacelia. These differences are primarily related to whether or not certain bioregions were assumed to be included in the definition of suitable habitat, and particularly the Riverside Lowlands bioregion which includes most of the existing urban development in the Plan Area but also includes large remaining habitat areas. These different assumptions resulted in different quantitative information but do not alter the conclusions of the effects analyses in either the MSHCP/NCCP or the Biological Opinion because similar levels of Conservation are anticipated in the Riverside Lowlands bioregion in both the MSHCP/NCCP and the Biological Opinion.

Impact 3.5.14

Approval of the MSHCP authorized under the NCCP Permit could result in potentially significant adverse impacts on these Group 3 High Elevation

species: arroyo toad (*Bufo californicus*); California red-legged frog (*Rana aurora draytonii*); coast range newt (*Taricha tarosa tarosa*); mountain yellow-legged frog (*Rana mucosa*); purple martin (*Progne subis*); San Bernardino flying squirrel (*Glaucomys sabrinus californicus*); Hammitt's clay cress (*Sibaropsis hammittii*); Johnston's rock cress (*Arabis johnstonii*); many-stemmed dudleya (*Dudleya multicaulis*); Munz's mariposa lily (*Calochortus palmeri* var *munzii*); Nevin's barberry (*Berberis nevinii*); San Miguel savory (*Satureja chandleri*); Vail Lake ceanothus (*Ceanothus ophiochilus*); San Jacinto Mountains bedstraw (*Galium angustifolium* ssp. *jacinticum*).

Finding 3.5.14

The Department finds that changes or alterations have been required in or incorporated into the MSHCP and CDFG's NCCP Permit which mitigate or avoid the potential significant impacts of the MSHCP on these Group 3 High Elevation species to below a level of significance. (**Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).**)

Explanation 3.5.14:

Arroyo toad, California red-legged frog, coast range newt and mountain yellow-legged frog are all species which have narrow habitat requirements and limited distribution. Arroyo toad is limited to middle reaches of third order streams with known populations (see page A-1, Volume II: Section B Species Account). California red-legged frog is limited to lowland streams, wetlands and pools where dense vegetation surrounds deep water with small watersheds and upland breeding habitat areas. The one known population is the Santa Rosa Plateau. Coast range newt is restricted to the Santa Ana Mountains in "pools and runs" stream configurations and adjacent upland habitat. Mountain yellow-legged frog is restricted to streams, creeks and small pools in the San Jacinto Mountains with year-round cool water.

Implementation of the Plan will result in loss of habitat for these species: arroyo toad, 296 acres; California red-legged frog, 47 acres of breeding habitat and 9,371 acres of secondary upland habitat; coast range newt, 4,011 acres of potential breeding habitat and 32,069 acres of secondary upland habitat; and mountain yellow-legged frog 138 acres of breeding habitat and 11,459 acres of secondary habitat (pages A-7, A-24, A-39, A-52, Volume II: Section B Species Accounts and page 4.1-34, Volume IV: EIR/EIS).

All of these species (except coast range newt) have in common six (6) biological objectives which will ensure that impacts to the respective species are mitigated to below a level of significance. The first two conditions relate to the number of conserved habitat acres and number of Core Areas: arroyo toad, include within the Conservation Area 1,602 acres of suitable breeding habitat and at least nine Core Areas (page A-2); California red-legged frog, include within the Conservation Area 766 acres of occupied and historic breeding habitat and Core Areas in the Santa Rosa Plateau and southern Santa Ana Mountains (page A-19); coast range newt, include within the Conservation Area 8,441 acres of primary breeding habitat and 76,579 acres of

secondary habitat; and mountain yellow-legged frog, include within the Conservation Area 335 acres of primary breeding habitat and specified elevational portions of Core Areas as per Objective 2, page A-48.

Objective 3 for the species concerns adjacent upland habitat: arroyo toad, include within the Conservation Area 7,005 acres of suitable upland habitat at specified locations (page A-2); California red-legged frog, include within the Conservation Area 39,147 acres of upland habitat adjacent to occupied or suitable breeding habitat (page A-19); and mountain yellow-legged frog, include within the Conservation Area 32,399 acres of the secondary wooded habitat as per page A-48.

Objective 4 concerns conducting surveys for arroyo toad, California red-legged frog, and mountain yellow-legged frog as part of the project review process for public and private projects within the amphibian species survey area where suitable habitat is present (Figure 6-3 of Volume I of the Plan).

Objective 5 for these species (Objective 4 for coast range newt) is a requirement to maintain or restore ecological processes within occupied habitat and suitable new areas at specified locations (pages A-3, A-20, A-35, and A-49).

Objective 6 is a condition regarding maintaining breeding populations or reproductive success: for arroyo toad, maintain breeding populations at a minimum of 80 percent of the conserved breeding locations across any five (5) consecutive years; for California red-legged frog and mountain yellow-legged frog, determine if successful reproduction is occurring once a year for the first five years after permit issuance and then not less than every eight years (pages A-3, A-20, and A-49 of the Plan).

Coast range newt has three non-standard conditions: 1) establish a 100-meter buffer around emergent vegetation; 2) maintain or restore ecological processes; and 3) maintain occupancy of at least 75% of the occupied coast range new habitat and determine if successful reproduction is occurring (see pages A-2 & 3, A-19 & 20, A-35, and A-48 & A-49).

Arroyo toad, California red-legged frog and mountain yellow-legged frog are subject to the Additional Survey Needs and Procedures policies of the MSHCP (page 6-65 of Section 6.3.2 and the Amphibian Species Survey Areas with Criteria Area, Figure 6-3 on page 6-66 of the MSHCP). In addition, these species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS, and 9.2(2)(4) of the MSHCP.).

Purple martin is a Group 3 species because it has low numbers spread over the Plan Area. It has specialized nest requirements (two known nests) and is typically found in association with water. Implementation of the Plan will result in the loss of 17,810 acres of potential habitat for this species (page B-438, Volume II: Section B Species Accounts and page 4.1-56, Volume IV: EIR/EIS). There are three biological objectives which will ensure that impacts to this species are

mitigated to below a level of significance: 1) include within the Conservation Area 45,020 acres of nesting and foraging habitat; 2) include within the Conservation Area the two (2) Core Areas; and, 3) include within the Conservation Area micro-habitat in potential nesting areas (page B-435). This species is also designated as a San Bernardino National Forest Sensitive Species and is protected through the implementation of forest plans and the biological evaluation process which considers the potential effects of Forest Service activities on this species (page B-434). In addition, this species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS, and 9.2(2)(4) of the MSHCP.).

San Bernardino flying squirrel only occurs in the San Jacinto Mountains, primarily on Forest Service lands. It is a species which has a narrow distribution and requires site-specific monitoring. Implementation of the Plan will result in the loss of approximately 9,404 acres of potential habitat (page M-140, Volume II: Section B Species Accounts and page 4.1-62, Volume IV: EIR/EIS). There are two biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area 19,476 acres of suitable habitat; and, 2) confirm occupation of 1000 hectares (2470 acres) with a mean density of at least two (2) individuals per hectare (page M-137). This species is also designated as a Forest Service Sensitive Species and is protected through the implementation of forest plans and the biological evaluation process which considers the potential effects of Forest Service activities on this species (M-136). Take of this species is not included in this permit until conservation of the species has been demonstrated by achieving Objective 2.

Hammitt's clay-crest and Johnston's rock cress are both species with limited geographic distribution and special habitat requirements. Hammitt's clay cress is found in the Elsinore Peak area of the Santa Ana Mountains in grassland. Johnston's rock cress is endemic to the San Jacinto Mountains in chaparral and pine forest habitat. Implementation of the Plan will result in the loss of habitat for each species: Hammitt's clay cress, 15,825 acres; and, Johnston's rock cress, 11,810 acres (page P-129 and P-156, Volume II: Section B Species Accounts and pages 4.1-84 and 4.1-66, Volume IV: EIR/EIS). Each species has three biological objectives which will ensure that impacts to these species are mitigated to below a level of significance. The objectives for Hammitt's clay-crest are to include within the Conservation Area 21,260 acres of suitable habitat and include the Core Area for this species. The objectives for Johnston's rock cress are to include within the Conservation Area 34,975 acres of suitable habitat and the two Core Areas, including 17 of the known occurrences. Objective 3 for both species involves conducting surveys as part of the project review process for public and private projects within the Narrow Endemic Plant Species survey area (see Narrow Endemic Plant Species Survey Area Map, Figure 6-1 of the Plan). Both plants are subject to the Protection of Narrow Endemics Policy of the MSHCP (Sections 6.1.3 and 9.2(2)(8) of the Plan).

Many-stemmed dudleya and San Miguel savory are all limited in geographic distribution with specialized habitat requirements. Many-stemmed dudleya is found in the Santa Ana Mountains Bioregion and Riverside Lowlands Bioregion in openings in chaparral, coastal sage scrub and grassland underlain by specific soils. San Miguel savory is restricted to rocky, gabbroic and

metavolcanic substrates in coastal sage scrub, chaparral, cismontane woodland, riparian woodland and grasslands in the Santa Rosa Plateau and Santa Ana Mountains. Implementation of the Plan will result in the loss of habitat for each species: many-stemmed dudleya, 185,710 acres; and, San Miguel savory, 224,550 acres (pages P-187 and P-364, Volume II: Section B EIR/EIS and pages 4.1-72 and 4.1-83 and Addendum). Each species has three biological objectives which will ensure that impacts to these species are mitigated to below a level of significance. The first two objectives for many-stemmed dudleya are: include within the Conservation Area 142,680 acres of suitable habitat and at least 26 of the known occurrences of this plant at specified locations (page P-184). The first two objectives for San Miguel savory are: include within the Conservation Area 201,450 acres of suitable habitat and at least seven of the known locations at specified sites (page P-361). Objective 3 for both species involves conducting surveys as part of the project review process for public and private projects within the Narrow Endemic Plant Species survey area (see Narrow Endemic Plant Species Survey Area Map, Figure 6-1 of the Plan). Both plants are subject to the Protection of Narrow Endemics Policy of the MSHCP (Sections 6.1.3 and 9.2(2)(8) of the Plan). These species are also designated as Forest Service Sensitive Species and are protected through the implementation of forest plans and the biological evaluation process which considers the potential effects of Forest Service activities on this species (page P-183 and P-360). In addition, San Miguel savory will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS and Addendum, and 9.2(2)(4) of the MSHCP.).

There are quantitative differences in the amount of suitable habitat between the MSHCP/NCCP and the Biological Opinion for San Miguel savory. These differences are primarily related to whether or not certain bioregions were assumed to be included in the definition of suitable habitat, and particularly the Riverside Lowlands bioregion which includes most of the existing urban development in the Plan Area but also includes large remaining habitat areas. These different assumptions resulted in different quantitative information but do not alter the conclusions of the effects analyses in either the MSHCP/NCCP or the Biological Opinion because similar levels of Conservation are anticipated in the Riverside Lowlands bioregion in both the MSHCP/NCCP and the Biological Opinion.

Munz's mariposa lily and San Jacinto Mountains bedstraw are restricted to the San Jacinto Mountains, primarily on Forest Service lands. Munz's mariposa lily is found in lower montane coniferous forest, chaparral and meadows in the San Jacinto Mountains Bioregion. San Jacinto Mountains bedstraw is found in lower montane mixed forest and coniferous forest in the San Jacinto Mountains. Implementation of the Plan will result in the loss of suitable habitat for these species: Munz's mariposa lily, 9,880 acres; and, San Jacinto Mountains bedstraw, 8,545 acres (page P-210 and P-346, Volume II: Section B Species Accounts and pages 4.1-68 and 4.1-73, Volume IV: EIR/EIS). There are three biological objectives which will ensure that impacts to these species are mitigated to below a level of significance. The first two objectives for Munz's mariposa lily are: include within the Conservation Area 33,470 acres of suitable habitat and 10 of the known locations within the San Jacinto Mountains (page P-207). The first two objectives for San Jacinto Mountains bedstraw are: include within the Conservation Area 12,125 acres of suitable habitat and at least eight of the known locations as specified (page P-343). Objective 3

for both species involves conducting surveys as part of the project review process for public and private projects within the Narrow Endemic Plant Species survey area (see Narrow Endemic Plant Species Survey Area Map, Figure 6-1 of the Plan). Both plants are subject to the Protection of Narrow Endemics Policy of the MSHCP (Sections 6.1.3 and 9.2(2)(8) of the Plan). These species are designated as Forest Service Sensitive Species and are protected through the implementation of forest plans and the biological evaluation process which considers the potential effects of Forest Service activities on this species (P-206 and P-342).

Nevin's barberry has a narrowly defined distribution and is dependent upon natural fire regimes. It is found on coarse soils and rocky slopes in chaparral and gravelly wash margins in alluvial scrub in the San Timoteo/Badlands area, Vail Lake and Agua Tibia Mountains. Implementation of the Plan will result in the loss of 3,990 acres of suitable habitat for this species (page P-227, Volume II: Section B Species Accounts). The three biological objectives which will ensure that impacts to this species are mitigated to below a level of significance are: 1) include within the Conservation Area 8,000 acres of suitable habitat; 2) conserve the known locations in the Conservation Area; and, 3) conduct surveys as part of the project review process for public and private projects. Nevin's barberry is subject to the Additional Survey Needs and Procedures policies of the MSHCP (page 6-63 of Section 6.3.2 and the Criteria Area Species Survey Area Figure 6-2 on page 6-64).

Vail Lake ceanothus has a highly restricted distribution within the Plan Area. It is found on metavolcanic or gabbroic soils on north facing slopes in chamise chaparral in the Vail Lake area and Agua Tibia Wilderness. Implementation of the Plan will result in the loss of 3,350 acres of potential habitat for this species (page P-449, Volume II: Section B Species Accounts). There are three biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area 13,290 acres of suitable habitat; 2) include within the Conservation Area at least three core locations; and, 3) conduct surveys as part of the project review process for public and private projects. Vail Lake ceanothus is subject to the Additional Survey Needs and Procedures policies of the MSHCP (page 6-63 of Section 6.3.2 and the Criteria Area Species Survey Area Figure 6-2 on page 6-64).

The Department finds that issuance of the MSHCP permit could result in significant impacts on these Group 3 High Elevation species and their habitat from development and other covered activities contemplated by the Plan. Likewise, the Department finds that all impacts on these species and their habitat associated with the Department's issuance of the Permit will be avoided or mitigated to below a level of significance under CEQA through adherence to and implementation of the Western Riverside MSHCP. In so doing, the Department's findings under CEQA with respect to these species are consistent with the findings of the lead agency on the same subject (see Final EIR/EIS Sections 4.1, Table 4C, page 4.1-97, page 4.1-145, and Section 4.1.6 and Addendum). The Department's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, monitoring and management program, and species-specific biological objectives, minimization and avoidance measures (MSHCP Sections 5.0, 6.1.2, 6.1.3, 6.1.4, 6.4, 7.0, 9.0 and Volume 2: Section B Species Accounts).

Impact 3.5.15

Approval of the MSHCP authorized under the NCCP Permit could result in potentially significant adverse impacts on these Group 3 Vernal Pool/Aquatic species: Riverside fairy shrimp (*Streptocephalus woottoni*); vernal pool fairy shrimp (*Branchinecta lynchi*); California orcutt grass (*Orcuttia californica*); Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*); Davidson's saltscale (*Atriplex serenana* var. *davidsonii*); little mousetail (*Myosurus minimus* ssp. *apus*); Parish's brittlescale (*Atriplex parishii*); prostrate navarretia (*Navarretia prostrata*); San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*); smooth tarplant; (*Centromadia pungens*); spreading navarretia (*Navarretia fossalis*); and thread-leaved brodiaea (*Brodiaea filifolia*).

Finding 3.5.15

The Department finds that changes or alterations have been required in or incorporated into the MSHCP and CDFG's NCCP Permit which mitigate or avoid the potential significant impacts of the MSHCP on these Group 3 Vernal Pool/Aquatic species to below a level of significance. (**Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).**)

Explanation 3.5.15:

Riverside fairy shrimp and vernal pool fairy shrimp are narrowly distributed in the Plan Area. The Plan states that both species require specific conditions, occur in few locations and use a well defined habitat that is narrowly distributed. Primary locations include the Santa Rosa Plateau and Skunk Hollow. Implementation of the Plan will result in the loss of suitable habitat for these species: Riverside fairy shrimp, 5,868 acres; and, vernal pool fairy shrimp, 67 acres of potential vernal pool and playa habitat and 4,016 acres of specific soils (pages C-5 and C-22, Volume II: Section B Species Accounts). Each has three biological conditions which will ensure that impacts to these species are mitigated to below a level of significance. The first two biological objectives for Riverside fairy shrimp are to include within the Conservation Area five Core Areas of occupied vernal pools and their watersheds and 11,942 acres of landscape habitat which might contain suitable vernal pool habitat. The first three objectives for vernal pool fairy shrimp are: 1) to include within the Conservation Area 476 acres of suitable habitat; 2) include within the Conservation Area 2,647 acres of alkali playa at specified locations (page C-19); and, 3) include within the Conservation Area at least three Core Areas that include the three known occupied vernal pools and their watersheds (page C-19). The final objective for each species is identical: include within the Conservation Area additional locations identified through the implementation of the Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools policy (Section 6.1.2 of the MSHCP).

California Orcutt grass, Coulter's goldfields, Davidson's saltscale, little mousetail, Parish's brittlescale, San Jacinto Valley Crownscale, spreading navarretia and thread-leaved brodiaea all have limited geographic distribution, specialized habitat requirements and management requirements for floodplain processes. California Orcutt grass is restricted to vernal pools at the Santa Rosa Plateau, Skunk Hollow and Salt Creek. Coulter's goldfields, Davidson's saltscale,

Parish's brittlescale, San Jacinto Valley crownscale and spreading navarretia are found in the alkali floodplains of the San Jacinto River, Mystic Lake and Salt Creek. Little mousetail is found in Salt Creek, the Santa Rosa Plateau and Harford Springs County Park. Thread-leaved brodiaea is found along the San Jacinto River, on Salt Creek and the Santa Rosa Plateau.

Implementation of the Plan will result in the loss of habitat for these species: California Orcutt grass, 1,130 acres; Coulter's goldfields, Davidson's saltscale, little mousetail, Parish's brittlescale, San Jacinto Valley crownscale, spreading navarretia, and thread-leaved brodiaea, 1,370 acres (pages P-45, P-74, P-91, P-170, P-264, P-354, P-421, and P-441, Volume II: Section B Species Accounts and pages 4.1-76, 4.1-68, 4.1-79, and 4.1-67, Volume IV: EIR/EIS and Addendum).

Their respective biological objectives will ensure that impacts to these species are mitigated to below a level of significance. The first two objectives for California Orcutt grass are: include within the Conservation Area 6,680 acres of suitable habitat and at least three (3) of the known locations of this species at specified locations (page P-42). The first objective for Coulter's goldfields, Davidson's saltscale, little mousetail, Parish's brittlescale, San Jacinto Valley crownscale, spreading navarretia and thread-leaved brodiaea are the same: include within the Conservation Area 6,900 acres of suitable habitat at the San Jacinto River, Mystic Lake and Salt Creek. The second objective for California Orcutt grass is to include within the Conservation Area at least three (3) of the known locations of this species at specified areas (page P-42). The second objective for Coulter's goldfields is to include within the Conservation Area at least 20 of the known occurrences of this species and the three (3) known Core Areas (page P-71). The second objective for Davidson's saltscale is to include within the Conservation Area the three known localities (page P-88). The second objective for little mousetail is: to include within the Conservation Area at least five (5) of the known locations of this species (Page P-167). The second objective for Parish's brittlescale is to include within the Conservation Area the three known populations of this species in the upper Salt Creek drainage (page P-261). The second objective for San Jacinto Valley crownscale is to include within the Conservation Area the Alberhill Creek locality and the three (3) Core Areas (page P-351). The second objective for spreading navarretia is to include within the Conservation Area at least 13 of the known localities of this species (page P-418). The second objective for thread-leaved brodiaea is to include within the Conservation Area the specified Core Areas (page P-436).

Objective three for all these species are identical: conduct surveys as part of the project review process for public and private projects within the Criteria Area Species Survey Area map (Figure 6-2 on page 6-64 of the MSHCP).

Objective four for California Orcutt grass is to include within the Conservation Area the watershed of specified vernal pool complexes in order to maintain hydrology. Objective four for Coulter's goldfields, Davidson's saltscale, little mousetail, Parish's brittlescale, San Jacinto Valley crownscale, spreading navarretia and thread-leaved brodiaea is to include within the Conservation Area the floodplain along the San Jacinto River and maintain floodplain processes (pages P-71, P-88, P-167, P-261, P-351, P-418, and P-436).

Objective five for Coulter's goldfields, Davidson's saltscale, little mousetail, Parish's brittlescale, San Jacinto Valley crownscale, spreading navarretia, and thread-leaved brodiaea is to include within the Conservation Area the floodplain along Salt Creek in its existing condition between Warren Road and Newport Road and the vernal pools in Upper Salt Creek (page P-72, P-89, P-167, P-261, P-352, P-419, P-437).

In addition, these species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS and Addendum, and 9.2(2)(4) of the MSHCP.). California Orcutt grass and spreading navarretia are subject to the Protection of Narrow Endemics Policy of the MSHCP (Sections 6.1.3 and 9.2(2)(8) of the Plan) within the Narrow Endemic Plant Species survey area (see Narrow Endemic Plant Species Survey Area Map, Figure 6-1 of the Plan). Coulter's goldfields, little mousetail, Davidson's saltscale, Parish's brittlescale, San Jacinto Valley crownscale and thread-leaved brodiaea are subject to the Additional Survey Needs and Procedures policies of the MSHCP (page 6-63 of Section 6.3.2 and the Criteria Area Species Survey Area Figure 6-2 on page 6-64).

Smooth tarplant has a limited geographic distribution, specialized habitat requirements and management requirements for floodplain processes. Distribution is scattered throughout the Plan Area but is primarily restricted to the San Jacinto River, Mystic Lake and Salt Creek. Implementation of the Plan will result in the loss of 1,370 acres of habitat for this species (page P-412, Volume II: Section B Species Accounts and page 4.1-74, Volume IV: EIR/EIS and Addendum). There are three biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area at least 6,900 acres of suitable habitat; 2) include within the Conservation Area the 27 known occurrences; and, 3) conduct surveys as part of the project review process for public and private projects within the Criteria Area Species Survey Area, Figure 6-2 on page 6-64 of the MSHCP. This species is subject to the Additional Needs and Procedures of the MSHCP (Sections 6.1.3, 6.3.2 and 9.2(2)(9)) and additional locations of this species shall be conserved in accordance with Section 6.3.2 of the MSHCP. In addition, this species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS and Addendum, and 9.2(2)(4) of the MSHCP.).

The Department finds that issuance of the MSHCP permit could result in significant impacts on these Group 3 Vernal Pool/Aquatic species and their habitat from development and other covered activities contemplated by the Plan. Likewise, the Department finds that all impacts on these species and their habitat associated with the Department's issuance of the Permit will be avoided or mitigated to below a level of significance under CEQA through adherence to and implementation of the Western Riverside MSHCP. In so doing, the Department's findings under CEQA with respect to these species are consistent with the findings of the lead agency on the same subject (see Final EIR/EIS and Addendum Sections 4.1, Table 4C, page 4.1-97, page 4.1-145, and Section 4.1.6). The Department's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, monitoring and management

program, and species-specific biological objectives, minimization and avoidance measures (MSHCP Sections 5.0, 6.1.2, 6.1.3, 6.1.4, 6.4, 7.0, 9.0 and Volume 2; Section B Species Accounts).

The MSHCP used specific “models” for Riverside fairy shrimp and vernal pool fairy shrimp California Orcutt grass, Coulter’s goldfields, Davidson’s saltscale, little mousetail, Parish’s brittlescale, spreading navarretia, thread-leaved brodiaea, San Jacinto Valley Crownscale, smooth tar plant and did not consolidate or generalize factors such as clayey soils, alkali soils and Santa Rosa Plateau basalt flows. These different assumptions resulted in different quantitative information but do not alter the conclusions of the effects analyses in either the MSHCP/NCCP or the Biological Opinion because the analyses in both the MSHCP/NCCP and the Biological Opinion assumed similar levels of conservation of the factors considered in the models including clayey soils, alkali soils and Santa Rosa Plateau basalt flows.

As stated in the Addendum the differences in quantitative information in the MSHCP/NCCP and the Biological Opinion do not reflect substantial new information or analysis and do not result in different conclusions regarding the overall MSHCP Conservation Area to be assembled through application of the MSHCP Criteria, the anticipated protection and management of Covered Species, or the severity of effects to Covered Species.

Prostrate navarretia is limited in geographic distribution, specialized habitat requirements and requirements for hydrology. It is found in coastal sage scrub, valley and foothill grassland and vernal pools on the Santa Rosa Plateau only. No known populations of this species are outside the Conservation Area. Suitable habitat for this species exists outside the Conservation Area, however, it cannot be quantified (page P-303, Volume II: Section B Species Accounts and page 4.1-80, Volume IV: EIR/EIS and Addendum). There are three biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area the known occurrences; 2) include within the Conservation Area the watershed of the vernal pool complex; and, 3) conduct surveys as part of the project review process for public and private projects within the Criteria Area Species Survey Area, Figure 6-2 on page 6-64 of the MSHCP. This species is subject to the Additional Needs and Procedures of the MSHCP (Sections 6.1.3, 6.3.2 and 9.2(2)(9)) and additional locations of this species shall be conserved in accordance with Section 6.3.2 of the MSHCP. In addition, this species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS and Addendum, and 9.2(2)(4) of the MSHCP.).

The MSHCP used specific “models” for prostrate navarretia and did not consolidate or generalize factors such as clayey soils, alkali soils and Santa Rosa Plateau basalt flows. This generalized model was refined for prostrate navarretia that is known only from the Santa Rosa Plateau by limiting the model to the Santa Ana Mountains bioregion. These different assumptions resulted in different quantitative information but do not alter the conclusions of the effects analyses in either the MSHCP/NCCP or the Biological Opinion because the analyses in both the MSHCP/NCCP

and the Biological Opinion assumed similar levels of conservation of the factors considered in the models including clayey soils, alkali soils and Santa Rosa Plateau basalt flows.

As stated in the Addendum the differences in quantitative information in the MSHCP/NCCP and the Biological Opinion do not reflect substantial new information or analysis and do not result in different conclusions regarding the overall MSHCP Conservation Area to be assembled through application of the MSHCP Criteria, the anticipated protection and management of Covered Species, or the severity of effects to Covered Species.

Impact 3.5.16

Approval of the MSHCP authorized under the NCCP Permit could result in potentially significant adverse impacts on these Group 3 Riparian/Aquatic species: Santa Ana sucker (*Catostomus santaanae*); western pond turtle (*Clemmys marmorata pallida*); southwestern willow flycatcher (*Empidonax traillii extimus*); western yellow-billed cuckoo (*Coccyzus americanus occidentalis*); and mud nama (*Nano stenocarpum*).

Finding 3.5.16

The Department finds that changes or alterations have been required in or incorporated into the MSHCP and CDFG's NCCP Permit which mitigate or avoid the potential significant impacts of the MSHCP on these Group 3 Riparian/Aquatic species to below a level of significance. (**Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).**)

Explanation 3.5.16:

Santa Ana sucker is narrowly distributed in a few locations, in open water and emergent vegetation in the Santa Ana River and below Prado Dam. It has specific habitat requirements, occurs in few locations and in low densities. About 390 acres of potential habitat for this species occur outside the Criteria Area and Public/Quasi-Public lands (page F-25, Volume II: Section B Species Accounts). There are five biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area 3,480 acres of suitable habitat; 2) include within the Conservation Area the Core Areas as per Page F-20, Volume II: Section B Species Accounts; 3) include within the Conservation Area the natural river bottom and banks of the Santa Ana River; 4) Reserve Managers will assess barriers to sucker movement and connectivity requirements; and, 5) Reserve Managers will assess threats to Santa Ana sucker, identify spawning areas, and other measures to benefit the species (page F-20). In addition, this species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS and Addendum, and 9.2(2)(4) of the MSHCP).

The acreages reflect different flooding conditions/assumptions in the Prado Basin area in the MSHCP/NCCP and Biological Opinion analyses. The MSHCP/NCCP assumed a "normal" rainfall year in this area while the Biological Opinion assumed flooding of the 100-year floodplain in Prado Basin. These different assumptions resulted in different quantitative information but do not alter the conclusions of the effects analysis in either the MSHCP/NCCP or the Biological

Opinion because essentially the entire Prado Basin is within public ownership and is assumed to be included in the MSHCP Conservation Area.

As stated in the Addendum the differences in quantitative information in the MSHCP/NCCP and the Biological Opinion do not reflect substantial new information or analysis and do not result in different conclusions regarding the overall MSHCP Conservation Area to be assembled through application of the MSHCP Criteria, the anticipated protection and management of Covered Species, or the severity of effects to Covered Species.

Western pond turtle has narrow habitat requirements and a limited distribution within the Plan Area, where it is restricted to slow moving permanent or intermittent streams, small ponds, small lakes, reservoirs and other water bodies where abundant cover is available. Implementation of the Plan will result in the loss of approximately 5,331 acres of suitable wetland habitat and 34,068 acres of adjacent upland habitat (page R-132, Volume II: Section B Species Accounts and page 4.1-34, Volume IV: EIR/EIS). There are five biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area 18,289 acres of suitable primary pond habitat; 2) include within the Conservation Area at least eight (8) Core Areas (see Page R-128); 3) include within the Conservation Area 59,999 acres of upland habitat; 4) include within the Conservation Area dispersal habitat in specified areas (Page R-128); and 5) maintain continued use of 75% of the conserved Core Areas as measured once every three years. In addition, this species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS, and 9.2(2)(4) of the MSHCP).

Southwestern willow flycatcher is narrowly distributed in a few locations, primarily in riparian woodland and other forests. It will require Conservation on a landscape level, with site-specific considerations for known locations and species-specific management conditions. Implementation of the Plan will result in the loss of 3,220 acres of suitable habitat for this species (page B-480, Volume II: Section B Species Accounts). There are four biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area 10,580 acres of suitable habitat, as specified on page B-474; 2) include within the Conservation Area at least six (6) Core Areas and connecting Linkages as specified on page B-474; 3) include within the Conservation Area additional areas within the Criteria Area identified as important for this species; and, 4) maintain (once every 3 years) the continued use of and successful reproduction of 75% of the known occupied Core Areas (page B-475). In addition, this species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS, and 9.2(2)(4) of the MSHCP).

Western yellow-billed cuckoo has been documented in the Plan Area but has only one known breeding location. It is found in riparian scrub and forest in the lowland bioregions. It requires specific conditions, occurs in low densities, requires site-specific considerations for known locations, species-specific management measures and will require Conservation on a landscape level. Implementation of the Plan will result in the loss of approximately 2,580 acres of suitable

habitat for this species (page B-562, Volume II: Section B Species Accounts). There are five biological objectives which will ensure that impacts to this species are mitigated to below a level of significance (pages B-555 and B-556): 1) include within the Conservation Area 8,970 acres of suitable habitat; 2) include within the Conservation Area five Core Areas and connecting Linkages, as specified; 3) maintain or improve the riparian habitat within documented locations of this species at Prado Basin, Santa Ana River, North Peak Conservation Bank; 4) include within the Conservation Area areas identified as important to this species; and, 5) maintain (once every three (3) years) the continued use of and successful reproduction at 75% of the known occupied Core Areas. In addition, this species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS and Addendum, and 9.2(2)(4) of the MSHCP.).

When identifying suitable habitat, the MSHCP/NCCP analysis included isolated water bodies in the analysis due to previous observations of transient individuals in these areas. The Biological Opinion did not consider these areas to be suitable habitat. These minor differences did not result in a substantial difference in the amount of habitat to be conserved in the area. Moreover, these different assumptions resulted in different quantitative information but do not alter the conclusions of the effects analysis in either the MSHCP/NCCP or the Biological Opinion because the isolated water bodies are within public ownership and assumed to be included in the MSHCP Conservation Area.

As stated in the Addendum the differences in quantitative information in the MSHCP/NCCP and the Biological Opinion do not reflect substantial new information or analysis and do not result in different conclusions regarding the overall MSHCP Conservation Area to be assembled through application of the MSHCP Criteria, the anticipated protection and management of Covered Species, or the severity of effects to Covered Species.

Mud nama is a plant which is limited in geographic distribution and has specialized habitat requirements and management requirements for hydrology. It occurs within muddy embankments of marshes and swamps, lake margins and riverbanks. There are three known occurrences in the Plan Area. Implementation of the Plan will result in the loss of approximately 1,220 acres of habitat for this species (page P-203, Volume II: Section B Species Accounts and page 4.1-80, Volume IV: EIR/EIS). There are four biological objectives which will ensure that impacts to this species are mitigated to below a level of significance (page P-201): 1) include within the Conservation Area at least 7,050 acres of suitable habitat in the Riverside Lowlands Bioregion; 2) include within the Conservation Area two of the three (3) known occurrences; 3) conduct surveys for this species as part of the project review process for public and private projects; and, 4) include within the Conservation Area the floodplain along the San Jacinto River. In addition, this species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS, and 9.2(2)(4) of the MSHCP.). Mud nama is also subject to the Additional Survey Needs and Procedures policies of the MSHCP (page 6-63 of Section 6.3.2 and the Criteria Area Species Survey Area Figure 6-2 on page 6-64).

The Department finds that issuance of the MSHCP permit could result in significant impacts on these Group 3 Riparian/Aquatic species and their habitat from development and other covered activities contemplated by the Plan. Likewise, the Department finds that all impacts on these species and their habitat associated with the Department's issuance of the Permit will be avoided or mitigated to below a level of significance under CEQA through adherence to and implementation of the Western Riverside MSHCP. In so doing, the Department's findings under CEQA with respect to these species are consistent with the findings of the lead agency on the same subject (see Final EIR/EIS Sections 4.1, Table 4C, page 4.1-97, page 4.1-145, and Section 4.1.6 and Addendum). The Department's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, monitoring and management program, and species-specific biological objectives, minimization and avoidance measures (MSHCP Sections 5.0, 6.1.2, 6.1.3, 6.1.4, 6.4, 7.0, 9.0 and Volume 2: Section B Species Accounts).

Impact 3.5.17

Approval of the MSHCP authorized under the NCCP Permit could result in potentially significant adverse impacts on this Group 3 Wetland/Marsh/Lake species: tri-colored blackbird (*Agelaius tricolor*).

Finding 3.5.17

The Department finds that changes or alterations have been required in or incorporated into the MSHCP and CDFG's NCCP Permit which mitigate or avoid the potential significant impacts of the MSHCP on this Group 3 Wetland/Marsh/Lake species to below a level of significance. (**Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).**)

Explanation 3.5.17:

Tri-colored blackbird has a widely scattered distribution in patches of dense emergent vegetation and riparian woodland areas in the lowland and foothills. It occurs in few locations, is narrowly distributed in its primary habitat and requires site-specific considerations, protection of preferred habitat on a landscape basis, and species-specific conservation measures. Implementation of the Plan will result in the loss of 60 acres of primary habitat, and 193,180 acres of secondary habitat (page B-527, Volume II: Section B Species Accounts and page 4.1-40, Volume IV: EIR/EIS). There are six biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area 420 acres of suitable primary habitat; 2) include within the Conservation Area the five (5) Core Areas (page B-522); 3) include within the Conservation Area 66,510 acres of secondary habitat; 4) maintain (once every 5 years) the continued use of and successful reproduction within at least one (1) of the identified Core Areas; 5) maintain, preserve and if feasible, restore hydrological process at specified areas; and, 6) include within the Conservation Area a 100-meter buffer around known nesting locations. In addition, this species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS, and 9.2(2)(4) of the MSHCP).

The Department finds that issuance of the MSHCP permit could result in significant impacts on this Group 3 Wetland/Marsh/Lake species and their habitat from development and other covered activities contemplated by the Plan. Likewise, the Department finds that all impacts on this species and its habitat associated with the Department's issuance of the Permit will be avoided or mitigated to below a level of significance under CEQA through adherence to and implementation of the Western Riverside MSHCP. In so doing, the Department's findings under CEQA with respect to this species are consistent with the findings of the lead agency on the same subject (see Final EIR/EIS Sections 4.1, Table 4C, page 4.1-97, page 4.1-145, and Section 4.1.6). The Department's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, monitoring and management program, and species-specific biological objectives, minimization and avoidance measures (MSHCP Sections 5.0, 6.1.2, 6.1.3, 6.1.4, 6.4, 7.0, 9.0 and Volume 2: Section B Species Accounts).

Impact 3.5.18

Approval of the MSHCP authorized under the NCCP Permit could result in potentially significant adverse impacts on these Group 3 Grassland species: burrowing owl (*Athene cunicularia hypugaea*); mountain plover (*Charadrius montanus*); northern harrier (*Circus cyaneus*); turkey vulture (*Cathartes aura*); Los Angeles pocket mouse (*Perognathus longimemris brevinasus*); round-leaved filaree (*Erodium macrophyllum*); and Yucaipa onion (*Allium marvinii*).

Finding 3.5.18

The Department finds that changes or alterations have been required in or incorporated into the MSHCP and CDFG's NCCP Permit which mitigate or avoid the potential significant impacts of the MSHCP on these Group 3 Grasslands species to below a level of significance. (**Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).**)

Explanation 3.5.18:

Burrowing owl is narrowly distributed at few locations in grassland and some agricultural land in the Plan Area. It has specific soil and micro-habitat conditions, occurs in few locations, requires large home ranges, occurs in low numbers and is semi-colonial. Implementation of the Plan will result in the loss of 82,490 acres of potential primary habitat and 101,400 acres of secondary potential habitat (page B-70, Volume II: Section B Species Accounts and page 4.1-43, Volume IV: EIR/EIS). There are seven (7) biological objectives which will ensure that impacts to this species are mitigated to below a level of significance : 1) include within the Conservation Area 27,470 acres of suitable primary habitat; 2) include within the Conservation Area the five (5) Core Areas (page B-64); 3) include within the Conservation Area 22,120 acres of secondary habitat; 4) include within the Conservation Area the known nesting locations at specified areas; 5) conduct surveys for this species as part of the project review process for public and private projects (see page B-65); 6) conduct pre-construction presence/absence surveys in suitable habitat for this species for all covered activities in the life of the Permit; and, 7) create translocation sites in the Conservation Area for the establishment of new colonies of burrowing owl. Burrowing owl is subject to the Additional Survey Needs and Procedures policies of the MSHCP (page 6-65 of

Section 6.3.2 and the Burrowing Owl Survey Areas with Criteria Area, Figure 6-4 on page 6-67 of the MSHCP). This species is also subject to the nest protection policies of the MSHCP (page 5-6 of Section 5.2.1(5) of the MSHCP).

Mountain Plover is narrowly distributed at a few locations in playas, vernal pools, grasslands and some agriculture habitats in the Riverside Lowlands Bioregion. It uses well defined habitat, requires site-specific considerations, protection of preferred habitat and species-specific management conditions. Implementation of the Plan will result in the loss of 1,160 acres of potential wintering habitat (page B-333, Volume II: Section B Species Accounts). There are two biological objectives which will ensure that impacts to this species are mitigated to below a level of significance (page B-330): 1) include within the Conservation Area 6,710 acres of suitable habitat; 2) include within the Conservation Area at least four (4) Core Areas and connecting Linkages, as specified. This species will benefit from the Riparian/Riverine Areas and Vernal Pool policies of the MSHCP and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS, and 9.2(2)(4) of the MSHCP).

Northern harrier has a widely scattered distribution in breeding habitat (cismontane alkali marsh, freshwater marsh, playas and vernal pools) and foraging and wintering habitat (agricultural land, Riversidean alluvial fan sage scrub and coastal sage scrub) in the lowland and foothills bioregions. Implementation of the Plan will result in the loss of 284,860 acres of potential habitat (page B-387, Volume II: Section B Species Accounts and page 4.1-46, Volume IV: EIR/EIS). There are five biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area 50,020 acres of suitable primary breeding and foraging habitat; 2) include within the Conservation Area the known and historic breeding locations at specified locations (page B-382); 3) include within the Conservation Area 104,140 acres of secondary habitat; 4) include and buffer the known nesting locations; and, 5) maintain (once every 5 years) the continued use of and successful reproduction at 75% of the known nesting areas. This species will benefit from the Riparian/Riverine Areas and Vernal Pool policies (Sections 9.2(2)(7) and 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS), Best Management Practices (Section 9.2(2)(4) of the MSHCP), and the nest protection policy (page 5-6 of Section 5.2.1(5) of the MSHCP).

Turkey vulture is widely distributed throughout the Plan Area. It requires specific conditions for nesting locations, site-specific considerations and species-specific considerations and management requirements. Implementation of the Plan will result in the loss of an estimated 342,360 acres of potential habitat for this species (page B-544, Volume II: Section B Species Accounts and page 4.1-46, Volume IV: EIR/EIS). There are five (5) biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area 457,160 acres of suitable foraging habitat; 2) include within the Conservation Area locations where the turkey vulture has been observed and that may function as important foraging areas; 3) include within the Conservation Area and buffer the known nest locations; 4) maintain (once every three (3) years) the continued use of and successful reproduction at 75% of the known nesting areas; and, 5) include within the Conservation Area cliffs capable of supporting

nests. This species will benefit from the nest protection policies (page 5-6 of Section 5.2.1(5) of the MSHCP).

Los Angeles pocket mouse is widely distributed in the eastern two-thirds of the Plan Area in sparsely vegetated habitat areas with patches of fine sandy soils associated with washes or dunes. Implementation of the Plan will result in the loss of an estimated 19,508 acres of potential habitat for this species (page M-91, Volume II: Section B Species Accounts and page 4.1-65, Volume IV: EIR/EIS). There are four (4) biological objectives which will ensure that impacts to this species are mitigated to below a level of significance (page M-87): 1) include within the Conservation Area 14,000 acres of suitable habitat; 2) include within the Conservation Area at least 10,000 acres of suitable habitat outside probable Core Areas; 3) conduct surveys as part of the project review process for public and private projects within the Mammal Species Survey Areas (Figure 6-5, page 6-68, Volume I: Part 2 of 2); and, 4) within the Conservation Area demonstrate that seven (7) Core Areas supports a stable or increasing population occupying at least 30% of the suitable habitat measured over any 8-consecutive year period. Los Angeles pocket mouse will benefit from the Additional Survey Needs and Procedures policies of the MSHCP (page 6-65 of Section 6.3.2).

Round-leaved filaree has specialized habitat and soils requirements and a limited distribution within the Plan Area. It is found in open cismontane woodland and valley and foothill grassland on clay soils between the Gavilan Hills to the foothills of the Agua Tibia Mountains. Implementation of the Plan will result in the loss of 215,108 acres of potential habitat (page P-323, Volume II: Section B Species Accounts and page 4.1-73, Volume IV: EIR/EIS). There are three (3) biological objectives which will ensure that impacts to this species are mitigated to below a level of significance (page P-321): 1) include within the Conservation Area 37,663 acres of suitable habitat; 2) include within the Conservation Area eight (8) of the ten (10) known localities of this species; and 3) conduct surveys for this species as part of the project review process for public and private projects. Round-leaved filaree will benefit from the Additional Survey Needs and Procedures policies of the MSHCP (page 6-63 of Section 6.3.2 and the Criteria Area Species Survey Area Figure 6-2 on page 6-64).

Yucaipa Onion has specialized habitat requirements and an unknown distribution in the Plan Area. It is found on clay openings in chaparral habitat at elevations between 760 and 1065 meters. Implementation of the Plan will result in the loss of an estimated 2,460 acres of potential habitat (page P-471, Volume II: Section B Species Accounts and page 4.1-66, Volume IV: EIR/EIS and Addendum). There are two biological objectives which will ensure that impacts to this species are mitigated to below a level of significance: 1) include within the Conservation Area 1,200 acres of suitable habitat; and, 2) conduct surveys as part of the project review process for public and private projects within the Narrow Endemic Plant Species survey area (see Narrow Endemic Plant Species Survey Area Map, Figure 6-1 of the Plan). This plant is subject to the Protection of Narrow Endemics Policy of the MSHCP (Sections 6.1.3 and 9.2(2)(8) of the Plan). This species is also subject to the Additional Needs and Procedures of the MSHCP (Sections 6.1.3, 6.3.2 and 9.2(2)(9) and additional locations of this species shall be conserved in accordance with Section 6.3.2 of the MSHCP.

There are quantitative differences in the amount of suitable habitat between the MSHCP/NCCP and the Biological Opinion for Yucaipa onion. Some of these differences are related to whether or not certain bioregions were assumed to be included in the definition of suitable habitat and elevation restrictions placed on the definitions. These different assumptions resulted in different quantitative information but do not alter the conclusions of the effects analyses in either the MSHCP/NCCP or the Biological Opinion because similar levels of Conservation are anticipated in the Riverside Lowlands bioregion in both the MSHCP/NCCP and the Biological Opinion.

The Department finds that issuance of the MSHCP permit could result in significant impacts on these Group 3 Grassland species and their habitat from development and other covered activities contemplated by the Plan. Likewise, the Department finds that all impacts on these species and their habitat associated with the Department's issuance of the Permit will be avoided or mitigated to below a level of significance under CEQA through adherence to and implementation of the Western Riverside MSHCP. In so doing, the Department's findings under CEQA with respect to these species are consistent with the findings of the lead agency on the same subject (see Final EIR/EIS Sections 4.1, Table 4C, page 4.1-97, page 4.1-145, and Section 4.1.6 and Addendum). The Department's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, monitoring and management program, and species-specific biological objectives, minimization and avoidance measures (MSHCP Sections 5.0, 6.1.2, 6.1.3, 6.1.4, 6.4, 7.0, 9.0 and Volume 2: Section B Species Accounts).

Impact 3.5.19

Approval of the MSHCP authorized under the NCCP Permit could result in potentially significant adverse impacts on these Group 3 Different Sampling Strategy species: Santa Rosa plateau fairy shrimp (*Linderiella santarosae*); Delhi sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*); Quino checkerspot butterfly (*Euphydryas editha quino*); Aguanga kangaroo rat (*Dipodomys merriami collinus*); San Bernardino kangaroo rat (*Dipodomys merriami parvus*); Munz's onion (*Allium munzii*); Orcutt's brodiaea (*Brodiaea orcuttii*); Parish's meadowfoam (*Limnanthes gracilis* var. *parishii*); San Diego Ambrosia (*Ambrosia pumila*); Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*); slender-horned spineflower (*Dodecahema leptoceras*); Wright's trichocoronis, (*Trichocoronis wrightii* var. *wrightii*); and San Diego button celery (*Eryngium aristulatum* var. *parishii*).

Finding 3.5.19

The Department finds that changes or alterations have been required in or incorporated into the MSHCP and CDFG's NCCP Permit which mitigate or avoid the potential significant impacts of the MSHCP on these Group 3 Different Sampling Strategy species to below a level of significance. (Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).)

Explanation 3.5.19:

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Santa Rosa Plateau fairy shrimp, Parish's meadowfoam and San Diego button celery are all species restricted to the Santa Rosa Plateau. Santa Rosa Plateau fairy shrimp is found on vernal pools formed on southern basalt flows. Parish's meadowfoam is found on ephemeral wetlands on the Plateau. San Diego button celery is found in vernal pools on the Plateau. Implementation of the Plan would result in the loss of 252 acres of habitat for the Santa Rosa Plateau fairy shrimp, (page C-14, Volume II: Section B Species Accounts and page 4.1-32, Volume IV: EIR/EIS and Addendum). There are no known occurrences of Parish's meadowfoam or San Diego button celery outside of the conserved area on the Santa Rosa Plateau. There are three (3) biological objectives which will mitigate impacts for Santa Rosa Plateau fairy shrimp to below a level of significance: 1) include within the Plan Area at least 32 acres of basalt flow vernal pools and their watersheds; 2) include within the Conservation Area at least 2,134 acres of areas on the basalt flow; and, 3) include within the Conservation Area additional areas identified as important for this species (page C-12). Parish's meadowfoam has two biological objectives which will mitigate impacts to below a level of significance: conserving the one (1) known location on the Santa Rosa Plateau and conserving the watershed of the vernal pool complex on the Santa Rosa Plateau. San Diego button celery has the same two conditions which will mitigate impacts to below a level of significance, except that condition number one requires conservation of the four known locations on the Santa Rosa Plateau. In addition, these species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS and Addendum, and 9.2(2)(4) of the MSHCP).

The MSHCP used specific "models" for Santa Rosa Plateau fairy shrimp and San Diego button celery and did not consolidate or generalize factors such as clayey soils, alkali soils and Santa Rosa Plateau basalt flows. This generalized model was refined for Santa Rosa Plateau fairy shrimp and San Diego button celery that are known only from the Santa Rosa Plateau by limiting the model to the Santa Ana Mountains bioregion. These different assumptions resulted in different quantitative information but do not alter the conclusions of the effects analyses in either the MSHCP/NCCP or the Biological Opinion because the analyses in both the MSHCP/NCCP and the Biological Opinion assumed similar levels of conservation of the factors considered in the models including clayey soils, alkali soils and Santa Rosa Plateau basalt flows.

As stated in the Addendum the differences in quantitative information in the MSHCP/NCCP and the Biological Opinion do not reflect substantial new information or analysis and do not result in different conclusions regarding the overall MSHCP Conservation Area to be assembled through application of the MSHCP Criteria, the anticipated protection and management of Covered Species, or the severity of effects to Covered Species.

Delhi sands flower-loving fly is found in low numbers and is narrowly distributed in Delhi series soils at three locations in the Plan Area. It requires a specific habitat type, site-specific considerations, protection and enhancement of this habitat, and species-specific management measures to maintain the habitat and populations. Implementation of the Plan will result in the loss of 452 acres of primary habitat and 791 acres of potentially restorable habitat (page I-11,

Volume II: Section B Species Accounts). The Plan includes three possible scenarios for Conservation of habitat which will mitigate impacts to below a level of significance, Objective 1A, 1B and 1C (see pages I-2-6). Objective 2 requires that Reserve Managers document successful reproduction at all three Core Areas in order for the species to be conserved in accordance with Objective 1.

Quino checkerspot butterfly is narrowly distributed at a few locations within the Plan Area and are restricted by the distribution and availability of their host plants. Total modeled habitat and total conserved habitat are recorded in Exhibit 1 of the Addendum. Thirty-two percent of the 85 known occurrences for this species are outside the Conservation Area. There are four biological objectives for this species which will mitigate impacts to below a level of significance: 1) include within the potential Core Areas 67,493 acres of habitat mosaic; 2) include within the Conservation Area the 12 known satellite occurrence complexes within six (6) identified areas (page I-18); 3) maintain landscape connectivity around the Lake Mathews/Estelle Mountain/Harford Springs Core and between Core and satellite populations in the southeastern portion of the Plan; and 4) Reserve Managers will document the distribution of Quino checkerspot on an annual basis.

The Biological Opinion "model" considered recovery units and information in the final August 11, 2003 quino recovery plan. This information was not available when the MSHCP/NCCP was distributed for public review (November 2002) or approved by the County Board of Supervisors (June 2003). Moreover, these different assumptions resulted in different quantitative information but do not alter the conclusions of the effects analyses in either the MSHCP/NCCP or the Biological Opinion because anticipated conservation within the recovery units and additional occurrence data reflected in the August 11, 2003 quino recovery plan is essentially identical in the MSHCP/NCCP and the Biological Opinion.

As stated in the Addendum the differences in quantitative information in the MSHCP/NCCP and the Biological Opinion do not result in different conclusions regarding the overall MSHCP Conservation Area to be assembled through application of the MSHCP Criteria, the anticipated protection and management of Covered Species, or the severity of effects to Covered Species.

Aguanga kangaroo rat and San Bernardino kangaroo rat both have narrow distributions in the Plan Area. Aguanga kangaroo rat has known localities in alluvial fan sage scrub in Temecula Creek in Aguanga and Wilson Creek in the Sage area. San Bernardino kangaroo rat is primarily restricted to Riversidean alluvial fan sage scrub in the San Jacinto River, Bautista Creek, Reche Canyon and the northern portion of the Jurupa Mountains. Implementation of the Plan will result in the loss of 1,324 acres of habitat for Aguanga kangaroo rat and 1,785 acres of habitat for San Bernardino kangaroo rat (pages M-5 and M-155, Volume II: Section B Species Accounts and page 4.1-61, Volume IV: EIR/EIS). Each species has four biological objectives which will mitigate impacts to these species to below a level of significance: 1) include within the Conservation Area 5,484 acres of habitat for the Aguanga kangaroo rat and 4,440 acres of habitat for the San Bernardino kangaroo rat; 2) conduct surveys for this species as part of the project review process for public and private projects; 3) within the 5,484 acres of occupied and potential habitat for the Aguanga kangaroo rat and 4,400 acres for the San Bernardino kangaroo rat,

ensure that 75% of the total is occupied and 20 percent of the occupied habitat supports a medium or higher population density; and, 4) Reserve Managers shall maintain or restore ecological process within the historic floodplains of the riparian stretches for the respective species. These species will benefit from the Riparian/Riverine and Vernal Pool Policy of the MSHCP, Best Management Practices and control of exotic species. Aguanga kangaroo rat and San Bernardino kangaroo rat are subject to the Additional Survey Needs and Procedures policies of the MSHCP (page 6-65 of Section 6.3.2 and the Mammal Species Survey Areas with Criteria Area, Figure 6-5 on page 6-68 of the MSHCP).

The MSHCP/NCCP analysis focused on occupied habitat as defined through extensive work on this species conducted throughout the MSHCP/NCCP Area. The Biological Opinion developed a suitable habitat "model" using vegetation and other relevant environmental factors. The analysis in the MSHCP/NCCP is therefore more reflective of known occupied habitat within the Plan Area while the analysis in the Biological Opinion predicts suitable habitat. The Biological Opinion analysis notes that suitable habitat is likely overestimated based on the model developed for the Opinion. These different assumptions resulted in different quantitative information but do not alter the conclusions of the effects analysis in either the MSHCP/NCCP or the Biological Opinion because similar levels of conservation of both known occupied areas and predicted suitable habitat are anticipated in both the MSHCP/NCCP and the Biological Opinion.

Munz's onion has a limited geographic distribution and specialized habitat requirements. It is associated with clay and cobbly soils of the Altamont, Auld, Bosanko, Claypit and Porterville series. Implementation of the Plan will result in the loss of 15,825 acres of potential habitat and 3,770 acres of clay soils. There are three biological objectives which will mitigate impacts to this species to below a level of significance: 1) include within the Conservation Area at least 21,260 acres of suitable habitat; 2) include within the Conservation Area 13 localities of this species (see page P-214); and 3) conduct surveys as part of the project review process for public and private projects within the Narrow Endemic Plant Species survey area (see Narrow Endemic Plant Species Survey Area Map, Figure 6-1 of the Plan). This plant is subject to the Protection of Narrow Endemics Policy of the MSHCP (Sections 6.1.3 and 9.2(2)(8) of the Plan).

Orcutt's brodiaea has a limited geographic distribution and specialized habitat requirements and management requirements for hydrology. It is restricted to ephemeral wetlands on the Santa Rosa Plateau, San Mateo Wilderness Area and along the San Jacinto River. Quantification of take of habitat was not calculated for this species, however, the Plan states that recorded locations are located outside the Conservation Area (page P-241, Volume II: Section B Species Accounts and page 4.1-68, Volume IV: EIR/EIS and Addendum). There are two biological objectives which will mitigate impacts to this species to below a level of significance: 1) include within the Conservation Area the known occurrences of this species (page P-240); and, 2) include within the Conservation Area the watershed for the vernal pool complexes at the Santa Rosa Plateau, San Mateo Wilderness and San Jacinto River. In addition, this species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS and Addendum, and 9.2(2)(4) of the MSHCP.).

The MSHCP used specific “models” for Orcutt’s brodiaea and did not consolidate or generalize factors such as clayey soils, alkali soils and Santa Rosa Plateau basalt flows. These different assumptions resulted in different quantitative information but do not alter the conclusions of the effects analyses in either the MSHCP/NCCP or the Biological Opinion because the analyses in both the MSHCP/NCCP and the Biological Opinion assumed similar levels of conservation of the factors considered in the models including clayey soils, alkali soils and Santa Rosa Plateau basalt flows.

As stated in the Addendum the differences in quantitative information in the MSHCP/NCCP and the Biological Opinion do not reflect substantial new information or analysis and do not result in different conclusions regarding the overall MSHCP Conservation Area to be assembled through application of the MSHCP Criteria, the anticipated protection and management of Covered Species, or the severity of effects to Covered Species.

San Diego ambrosia has a limited geographic distribution and specialized habitat and management requirements. There are two known populations in the Alberhill area. It occurs in open floodplain terraces or in the watershed margins of vernal pools. Implementation of the Plan will result in the loss of 52,010 acres of potential habitat for this species (page P-229, Volume II: Section B Species Accounts). There are three biological objectives which will mitigate impacts to this species to below a level of significance: 1) include within the Conservation Area 21,800 acres of suitable habitat; 2) include within the Conservation Area two of the three known locations of this species; and, 3) conduct surveys as part of the project review process for public and private projects within the Narrow Endemic Plant Species survey area (see Narrow Endemic Plant Species Survey Area Map, Figure 6-1 of the Plan). This plant is subject to the Protection of Narrow Endemics Policy of the MSHCP (Sections 6.1.3 and 9.2(2)(8) of the Plan).

There are quantitative differences in the amount of suitable habitat between the MSHCP/NCCP and the Biological Opinion for San Diego ambrosia. Some of these differences are related to whether or not certain bioregions were assumed to be included in the definition of suitable habitat and elevation restrictions placed on the definitions. These different assumptions resulted in different quantitative information but do not alter the conclusions of the effects analyses in either the MSHCP/NCCP or the Biological Opinion because similar levels of Conservation are anticipated in the Riverside Lowlands bioregion in both the MSHCP/NCCP and the Biological Opinion.

Santa Ana River woollystar has a narrowly restricted geographic distribution, specialized habitat requirements and management requirements for floodplain processes. It is found in open washes and early-successional alluvial fan scrub above main watercourses whether there is periodic flooding and scouring. Implementation of the Plan will result in the loss of 910 acres of potential habitat (page P-370, Volume II: Section B Species Accounts). There are three biological objectives which will mitigate impacts to this species to below a level of significance: 1) include within the Conservation Area at least 2,340 acres of suitable habitat; 2) include within the Conservation Area three localities of this species near the San Bernardino County border; and, 3)

include the floodplain of the Santa Ana River within the Conservation Area and maintain ecological processes. In addition, this species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS, and 9.2(2)(4) of the MSHCP.).

Slender-horned spineflower has specialized habitat requirements and limited distribution. It occurs in mature alluvial scrub that is maintained by periodic flooding and sediment transport at specific locations in the Plan Area (P-383). Implementation of the Plan will result in the loss of 2,950 acres of potential habitat and require surveys for 2,290 acres outside the Conservation Area (page P-388, Volume II: Section B Species Accounts). There are four biological objectives which will mitigate impacts to this species to below a level of significance: 1) include within the Conservation Area 8,350 acres of suitable habitat; 2) include within the Conservation Area 11 known locations of this species; 3) conduct surveys for this species as part of the project review process for public and private projects within the Narrow Endemic Plant Species Survey Area (see Narrow Endemic Plant Survey Area Map, Figure 6-1 of the Plan); and, 4) include within the Conservation Area the floodplain along Arroyo Seco Creek, Kolb Creek, Temescal Wash at Indian Creek, Bautista Creek and the San Jacinto River, and maintain ecological processes. In addition, this species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS, and 9.2(2)(4) of the MSHCP.). This plant is subject to the Protection of Narrow Endemics Policy (Sections 6.1.3 and 9.2(2)(8) of the Plan).

Wright's trichocoronis has limited geographic distribution and specialized habitat requirements and management requirements for floodplain process. It is restricted to the alkali floodplains of the San Jacinto River and has two core locations in the San Jacinto River and San Jacinto Wildlife Area. Implementation of the Plan will result in the loss of 1,370 acres of potential habitat (page P-464, Volume II: Section B Species Accounts and page 4.1-84, Volume IV: EIR/EIS and Addendum). There are four biological objectives which will mitigate impacts to this species to below a level of significance: 1) include within the Conservation Area 6,900 acres of suitable habitat; 2) include within the Conservation Area at least four of the known locations of this species; 3) conduct surveys for this species as part of the project review process for public and private projects within the Narrow Endemic Plant Species Survey Area (see Narrow Endemic Plant Survey Area Map, Figure 6-1 of the Plan); and, 4) include within the Conservation Area the floodplain along the San Jacinto River and maintain ecological processes. This plant is subject to the Protection of Narrow Endemics Policy of the MSHCP (Sections 6.1.3 and 9.2(2)(8) of the Plan). In addition, this species will benefit from the Riparian/Riverine Areas and Vernal Pool policies and Best Management Practices of the MSHCP (Sections 9.2(2)(7), 6.1.2 of the MSHCP and 4.1-85 of the EIR/EIS and Addendum, and 9.2(2)(4) of the MSHCP).

The Department finds that issuance of the MSHCP permit could result in significant impacts on these Group 3 Different Sampling Strategy species and their habitat from development and other covered activities contemplated by the Plan. Likewise, the Department finds that all impacts on these species and their habitat associated with the Department's issuance of the Permit will be avoided or mitigated to below a level of significance under CEQA through adherence to and

implementation of the Western Riverside MSHCP. In so doing, the Department's findings under CEQA with respect to these species are consistent with the findings of the lead agency on the same subject (see Final EIR/EIS and Addendum Sections 4.1, Table 4C, page 4.1-97, page 4.1-145, and Section 4.1.6). The Department's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, monitoring and management program, and species-specific biological objectives, minimization and avoidance measures (MSHCP Sections 5.0, 6.1.2, 6.1.3, 6.1.4, 6.4, 7.0, 9.0 and Volume 2: Section B Species Accounts).

The MSHCP used specific "models" for Wright's trichocoronis and did not consolidate or generalize factors such as clayey soils, alkali soils and Santa Rosa Plateau basalt flows. These different assumptions resulted in different quantitative information but do not alter the conclusions of the effects analyses in either the MSHCP/NCCP or the Biological Opinion because the analyses in both the MSHCP/NCCP and the Biological Opinion assumed similar levels of conservation of the factors considered in the models including clayey soils, alkali soils and Santa Rosa Plateau basalt flows.

As stated in the Addendum the differences in quantitative information in the MSHCP/NCCP and the Biological Opinion do not reflect substantial new information or analysis and do not result in different conclusions regarding the overall MSHCP Conservation Area to be assembled through application of the MSHCP Criteria, the anticipated protection and management of Covered Species, or the severity of effects to Covered Species.

Impact 3.5.20

Approval of the MSHCP authorized under the NCCP Permit could result in potentially significant adverse impacts on Non-Covered Species.

Finding 3.5.20

The Department finds that changes or alterations have been required in or incorporated into the MSHCP and CDFG's NCCP Permit which mitigate or avoid the potential significant impacts on Non-Covered Species to below a level of significance. (**Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).**)

Explanation 3.5.20:

The County of Riverside Board of Supervisors found on June 17, 2003 in its "Certification of Environmental Impact Report, Approval of Multiple Species Habitat Conservation Plan, and Implementing Agreement – Adoption of Resolution 2003-299" that implementation of the MSHCP could cause potentially significant adverse effects on Non-Covered Species.

As a responsible agency under CEQA, CDFG is required not to approve or carry out any project for which an EIR has been certified which identifies one or more significant effects thereof unless CDFG makes one of three findings. In this instance, CDFG finds that changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects of the MSHCP on Non-Covered Species. The previous sections include specific policies and

implementation measures in the Plan which mitigate and minimize impacts of the MSHCP on species. The avoidance, mitigation, monitoring and management measures discussed in those sections are hereby incorporated by reference into this section.

The discussion of Covered and Non-Covered Species goes to the heart of the rationale underlying the preparation of an NCCP. The premise is that if an NCCP protects and conserves ecosystems and ecosystem processes in a viable manner, it will protect and conserve the species which are dependent upon that ecosystem(s).

The MSHCP EIR/EIS discusses Non-Covered Species (EIR/EIS p 4.1-86) and lists all 255 species for which adequate information is available to conduct an impact analysis under CEQA and NEPA. Of these 255 species, 109 were not included as Covered Species. Table 4D of the EIR/EIS explains why these 109 species were not considered for coverage under the MSHCP. Among the rationale for non-coverage are: insufficient information on distribution; widespread distribution and not a sensitive species; lack of information on the species' ecology; and, the species is not known to occur within the Plan Area. Information on the species' ecology includes habitat requirements, life history and other factors.

The final list of 146 Covered Species includes listed threatened and endangered species, other regionally or locally sensitive or rare species, and upper trophic or generalist species that have broad habitat requirements. The purpose of the list of 146 species is to include plants and animals which are now sensitive or have the potential to become sensitive in the future. The final species list includes a total of 32 listed and proposed to be listed species which occur in the Plan Area. Seven other strong candidates for listing are also included in the final species list.

On page 4.1-87, the MSHCP EIR/EIS states that while there is an assumption that Non-Covered Species would benefit from implementation of the MSHCP, "...it is not possible to quantify the level of conservation because of the lack of information available for these species or because the species are not known to occur within the MSHCP Area." Therefore, because there is not enough information on the species' ecology, species distribution or because a particular species is not known to occur within the Plan Area, the EIR/EIS concluded that impacts to Non-Covered Species are not quantifiable and cannot be considered in a take analysis.

The MSHCP is the largest and most comprehensive NCCP/HCP to date and covers diverse landscapes from urban cities to undeveloped foothills and montane forests, as well as 146 species of plants and animals. In addition to the presence of multiple habitats, the Plan stretches across the San Ana Mountains, Riverside Lowlands, San Jacinto Foothills, San Jacinto Mountains, Agua Tibia Mountains, Desert Transition and San Bernardino Mountains bioregions.

The principles of NCCPA and of conservation biology, creation of the Reserve in accordance with these principles, and measures to protect and maintain the habitat and conserve Covered Species will also provide for the long term conservation of Non-Covered Species dependent upon the habitat.

As is stated in Chapter 10, Section 2801(i) of the Fish and Game Code, the purpose of natural community conservation planning is to: "...sustain and restore those species and their habitat identified by the department that are necessary to maintain the continued viability of those biological communities impacted by human changes to the landscape."

The Natural Community Conservation Planning General Process Guidelines discuss the characteristics of an NCCP and state the following regarding ecosystem conservation: "The plan promotes wildlife diversity through conservation of habitat on an ecosystem level. "Wildlife" means and includes all wild animals, birds, plants, fish, amphibians, and related ecological communities, including the habitat upon which the wildlife depends for its continued viability (Fish and Game Code 711.2)." As part of its mandate, the CDFG is a trustee agency for fish and wildlife resources, not just sensitive fish and wildlife resources.

Section 3.1.4 of the MSHCP discusses these tenets of conservation biology. These tenets are the foundation for the MSHCP design and implementation and are found in the NCCP Conservation Guidelines: conserve target species throughout the planning area; larger reserves are better; keep reserve areas close; keep habitat contiguous; link reserves with corridors; reserves should be diverse; and, protect reserves from encroachment. Early in the MSHCP process a Conceptual Conservation Scenario was developed based upon the existing data and literature, habitat assessment workshops, species occurrence information, coastal sage scrub habitat quality modeling, existing and planned land uses, and general conservation biology principles from the NCCP reserve design tenets. The Conceptual Conservation Scenario incorporated existing core reserves, potential core areas and landscape linkages and corridors connecting core areas. The potential Core areas included those areas where there are multiple species and habitat resources.

Throughout the document, the Department makes findings that the Plan complies with CEQA, the NCCPA and the Natural Community Conservation Plan Permit for the MSHCP. These findings are 4.1.2, 4.1.3, 4.1.4, 4.1.5(A-E), 4.1.6, 4.1.7, 4.1.8, 4.1.9 and 4.1.11.

CDFG finds that the Plan is consistent with the Planning Agreement (4.1.2); provides for protection of habitat, natural communities and species diversity on a landscape or ecosystem level (4.1.4); conserves, restores and manages representative natural and seminatural landscapes to maintain the ecological integrity of large habitat blocks (4.1.5A); provides linkages between Core areas and habitat outside the Plan Area (4.1.5B); provides habitat areas large enough to support sustainable populations of Covered Species (4.1.5C); incorporates a range of environmental gradients and high habitat diversity (4.1.5D); provides and sustains the movement and interchange of organisms between Core Areas (4.1.5E); identifies activities that are not compatible with conservation (4.1.6); provides conservation measures based upon the best available scientific information (4.1.7); provides a comprehensive management and monitoring program (4.1.8); provides an adaptive management program (4.1.9); and provides funding mechanisms to carry out the conservation actions (4.1.11).

The above Findings indicate that the MSHCP is designed for multiple species and that it provides for the conservation of a diverse range of species and habitats in Western Riverside County. The

monitoring program will provide data on the health of habitat and a range of species (plants, plant communities, birds, reptiles, amphibians and mammals). The monitoring program will also provide information on Non-Covered Species that may be incorporated into the management plans. By identifying and conserving large blocks of interconnected natural habitat and identifying measures to conserve and protect the species dependent upon these natural habitats, the MSHCP will conserve not only the Covered Species but also all other Non-Covered Species found in and dependent upon these conserved habitats. By providing a wide range of habitat diversity, the MSHCP adequately includes in the reserve system an accompanying diverse number of Covered and Non-Covered Species.

The Department finds that issuance of the MSHCP permit could result in significant impacts on Non-Covered Species. However, the Department finds that all impacts on these species and their habitat associated with the Department's approval of the Plan and issuance of the Permit will be avoided or mitigated to below a level of significance under CEQA through adherence to and implementation of the Western Riverside MSHCP. The Department's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, monitoring and management program, and species-specific biological objectives, minimization and avoidance measures (MSHCP Sections 5.0, 6.1.2, 6.1.3, 6.1.4, 6.4, 7.0, 9.0 and Volume 2: Section B Species Accounts).

Impact 3.5.21

Approval of the MSHCP authorized under the NCCP Permit could result in potentially significant adverse impacts to Native Grassland Vegetation Communities.

Finding 3.5.21

The Department finds that changes or alterations have been required in or incorporated into the MSHCP and CDFG's NCCP Permit which mitigate or avoid the potential significant impacts to Native Grassland Vegetation Communities to below a level of significance. (**Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).**)

Explanation 3.5.21:

The County of Riverside Board of Supervisors found on June 17, 2003 in its "Certification of Environmental Impact Report, Approval of Multiple Species Habitat Conservation Plan, and Implementing Agreement – Adoption of Resolution 2003-299" that implementation of the MSHCP could cause potentially significant adverse effects on Native Grassland Vegetation Communities.

As a responsible agency under CEQA, CDFG is required not to approve or carry out any project for which an EIR has been certified which identifies one or more significant effects thereof unless CDFG makes one of three findings. In this instance, CDFG finds that changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects of the MSHCP on Native Grassland Vegetation Communities. The previous sections include specific policies and implementation measures in the Plan which mitigate and minimize impacts of

the MSHCP on species. The avoidance, mitigation, monitoring and management measures discussed in those sections are hereby incorporated by reference into this section.

The MSHCP vegetation coverage does not distinguish between native and non-native grassland, just that grassland could be reduced by 72%. The MSHCP EIR/EIS states on page 4.1-13: "However, as the vegetation coverage does not distinguish between native and non-native grassland, impacts to sensitive native grassland cannot be quantified independently, and significant impacts to this vegetation community may still occur."

Volume II-C, Habitat Accounts of the MSHCP contains a description of the grassland vegetation association, in particular native Valley and foothill grasslands. This account notes that grasslands cover approximately 11.8% of the Plan Area. Of the 11.8% only 0.2% or 2,736 acres of native Valley and foothill grassland are mapped in the Plan Area (Santa Rosa Plateau). The rest (11.6%) are non-native grasslands. However, there are other reports of smaller isolated locations of Valley and foothill grasslands. The Agua Tibia Wilderness area supports dense stands of foothill stipa and nodding needlegrass with a lower abundance of other native grasses. Additional unmapped Valley and foothill grasslands are reported within the southwestern portion of the Santa Ana Mountains including Elsinore Peak, Bluewater Flats, and Oak Flats. There are also reports of native grassland in the Gavilan Hills. According to Keeley, the current distribution of Valley and foothill grasslands is limited to areas supporting deep clayey soils free from mechanical disturbance.

In an article entitled "Key Ecological Processes in Southern California Native Grasslands", Gary P. Bell writes that: "The permanent establishment of European annual grasses (*Bromus mollis*; *Hordeum geniculatum*, *Avena barbata*, etc) and forbs (most notably several species of *Erodium*) in the California lowlands has resulted in the near disappearance of native California grassland (Wright and Bailey 1982)." Additionally, Stromberg, Kephart and Sicular-Mertens in an article entitled "Restoration of Native Grasses in California Old Fields II: Cheap Tills", write that "Conversion to an exotic annual vegetation was so fast, extensive, and complete that the original extent and species composition of most native perennial grasslands is unknown" (Burcham 1957, Barry 1972, Keeley 1989, Heady et al. 1992, Holland and Keil 1995).

Because of the history of mining, agriculture and ranching in Riverside County, it is probable that, with the exception of some riparian areas and vernal pools, most of the native grassland in lowland areas has been replaced by annual grasses. Therefore, the loss of grasslands in lowland areas (79% of the total loss, as per Response to Comment G-16) would not appear to pose a significant adverse impact to native grasslands. In addition, 96% of the mapped known native grasslands would be conserved under the MSHCP. Grassland that occurs in a mosaic with other habitats will also be conserved throughout the Lake Skinner/Lake Mathews linkage and within Proposed Core 7 in the Vail Lake/Wilson Valley/Sage Aguanga area. Additional grassland conservation will occur within the Cactus Valley areas. It is expected that new patches of native grasslands will be found in the expanded and proposed Core Reserves where habitat is relatively undisturbed and intact.

The habitat account of grasslands in the MSHCP (Volume II-C, Habitat Accounts) recommends ground-truthing of areas supporting grasslands and clay or deep, well developed soils to determine the location of other important stands of Valley and foothill grasslands. As part of its Management and Monitoring Program the MSHCP will focus on vegetation communities that are considered underrepresented and/or most at risk in the Conservation Area (page 5-56, Section 5.0 Management and Monitoring), including native grasslands. Also on page 5-56, grassland is a vegetation category that is specifically indicated to be inventoried and assessed first.

The MSHCP will preserve the only mapped occurrence of native grassland in the Plan Area, the 2,736 acres on the Santa Rosa Plateau. The MSHCP has also identified other potential areas of native grassland. The lack of information on the location of other native grassland localities will be mitigated by the policies in the Management and Monitoring Program to identify and conserve areas of native grassland.

The Department finds that issuance of the MSHCP permit could result in significant impacts on native grasslands. However, the Department finds that all impacts native Valley and foothill grasslands associated with the Department's approval of the Plan and issuance of the Permit will be avoided or mitigated to below a level of significance under CEQA through adherence to and implementation of the Western Riverside MSHCP. The Department's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, Monitoring and Management Program, and species-specific biological objectives, minimization and avoidance measures (MSHCP Sections 5.0, 6.1.2, 6.1.3, 6.1.4, 6.4, 7.0, 9.0 and Volume 2: Section B Species Accounts).

3.6 Mitigation Monitoring and Reporting Program

Every agency that makes CEQA findings must adopt a Mitigation Monitoring and Reporting Program (MMRP) to ensure mitigation measures that have been required as conditions of approval are carried out. (CEQA Guidelines, § 15097, subd. (d).) The County has prepared the Plan so that it incorporates monitoring and reporting requirements, and did not prepare a separate MMRP document. Those provisions in the Plan (see Section 5 of the Plan) serve the needs of both the County and CDFG to ensure that the Plan, especially the components of the plan designed to avoid and mitigate potentially significant impacts, are properly implemented in compliance with their conditions of approval. After reviewing the County's MSHCP and determining that this document meets CDFG's needs with respect to implementation of the Plan, CDFG is adopting the monitoring and reporting elements of the MSHCP as its own MMRP.

3.7 Alternatives

Where a lead agency has determined that, even after the adoption of all feasible mitigation measures, a project as proposed will still cause one or more significant environmental effects that cannot be substantially lessened or avoided, the agency, prior to approving the project as mitigated, must first determine whether, with respect to such impacts, there remain any project

alternatives that are both environmentally superior and feasible within the meaning of CEQA. (See, e.g., *Citizens for Quality Growth v. City of Mt. Shasta* (1988) 198 Cal.App.3d 433, 445.)

CDFG faces a similar obligation as a responsible agency under CEQA. (CEQA Guidelines, § 15096, subd. (g); see also Pub. Resources Code, § 21081; CEQA Guidelines, § 15096, subd. (h).) As noted above, however, when considering alternatives and mitigation measures, CDFG “has the responsibility for mitigating or avoiding only the direct or indirect environmental effects of those parts of the project which it decides to carry out, finance or approve.” (*Id.*, § 15096, subd. (g)(1).) Those effects, in the present case, are limited to the environmental effects authorized by CDFG under NCCPA for the Plan. In that regard, and consistent with the CEQA Guidelines, issuance of the NCCP Permit is prohibited if there is “any feasible alternative or feasible mitigation measures within [CDFG’s] powers that would substantially lessen or avoid any *significant* effect” associated with that decision. (*Id.*, § 15096, subd. (g)(2) (emphasis added).)

As demonstrated above in Section 3.5, no significant environmental effects that fall within the responsibility and jurisdiction of CDFG remain unmitigated. That is to say, all potentially significant impacts associated with CDFG’s authorization of the Plan are mitigated to below a level of significance under CEQA, so no project alternatives are analyzed by CDFG. (See, e.g., *Laurel Hills Homeowners Assoc. v. City Council* (1978) 83 Cal.App.3d 515, 520-521 (in adopting findings under CEQA, agencies need not consider the feasibility of project alternatives if they adopt mitigation measures that “substantially lessen or avoid” a project’s significant adverse impacts); *Laurel Heights Improvement Assoc. v. Regents of the University of California* (1988) 47 Cal.3d 376, 400-403.)

3.8 Statement of Overriding Considerations

Because CDFG’s approval of the Plan will not result in any adverse environmental impacts that remain significant and unavoidable, CDFG need not adopt a Statement of Overriding Considerations under CEQA.

4.0 FINDINGS UNDER NCCPA

All NCCPs must contain certain substantive elements identified in current or former sections of the NCCPA.

4.1 NCCPA of 2002

As described above in Section 1.1, the NCCPA was significantly revised in 2002 with enactment of Senate Bill 107 (“S.B. 107”). S.B. 107 “grandfathered” a number of NCCPs that were under development prior to enactment of the 2002 revisions, requiring that these plans be completed, approved and implemented pursuant to the NCCPA as it read in 2001 rather than pursuant to the revised statutes (§2830). For an NCCP that falls under one of the grandfathering provisions in Section 2830, CDFG must evaluate the adequacy of the NCCP by reference to earlier versions of the NCCPA and to the guidelines issued under those earlier statutes.

Finding 4.1.1

CDFG finds that the Plan meets all of the criteria in Section 2830, subdivision (e) for “grandfathering.”

Section 2830 provides that for NCCPs meeting specific criteria, taking of identified species is not prohibited even though the NCCP does not meet all standards in S.B. 107. More specifically, this section provides that specified NCCPs that were under development prior to enactment of S.B. 107 may be evaluated and approved by CDFG and implemented pursuant to some of the legal standards that were in place prior to the 2002 amendments to the NCCPA.

Certain grandfathered plans must be in “substantial compliance” with specific standards or processes before they can be approved. For a plan to be governed by Section 2830 (e), the planning agreement must have been executed on or before January 1, 2002 and the plan must be in substantial compliance with Section 2820 (Fish & Game Code §2830(e)).

The Riverside County MSHCP Planning Agreement was executed on June 19, 1997. As discussed below, the Plan substantially complies with Section 2820.

Finding 4.1.2

CDFG finds that the Plan has been developed consistent with the process identified in the planning agreement as per Section 2820(a)(1) and Section III A (1)(a-g) of the NCCP General Process Guidelines.

The NCCP General Process Guidelines (“**Guidelines**”) discuss the measures that should be included in a planning agreement for a multi-species habitat plan. NCCP General Process Guidelines III (A)(1)(a-g) and Section 2820(a)(1) require that the plan be developed consistent with the planning agreement.

The Planning Agreement for the Western Riverside County Multiple Species Habitat Conservation Plan was approved by the RCHCA Board of Directors on June 19, 1997 and signed by the Director of the California Department of Fish and Game on August 19, 1997.

The terms of the Agreement were implemented as per the roles and responsibilities assigned to the respective parties. Therefore, the Planning Agreement was entered into and is consistent with the NCCP General Process Guidelines and 2820 (a)(1).

The Planning Agreement Identified the Scope and Participating Parties:

The Planning Agreement identifies the initial parties involved in the Western Riverside MSHCP. Identified participating parties include: United States Fish and Wildlife Service, the United States Bureau of Land Management, the California Resources Agency, the California Department of Fish and Game, the Riverside County Habitat Conservation Agency, the County of Riverside, and the cities of Corona, Hemet, Lake Elsinore, Moreno Valley, Murrieta, Perris, Riverside, and Temecula. The MSHCP, through the Implementing Agreement, identifies the Permittees (Section 1.0 of the IA), which may include participating parties identified in the Planning Agreement.

The Planning Agreement also defines the scope of the MSHCP in Section 2.0, in geographic terms (Section 5), time limitation (Section 4), species and habitats (Section 6) and underlying biological principles (Section 1.5). In addition to the presence of multiple habitats, the Plan stretches across the Santa Ana Mountains, Riverside Lowlands, San Jacinto Foothills, San Jacinto Mountains, Agua Tibia Mountains, Desert Transition and San Bernardino Mountains bioregions. The Plan Area extends approximately from the Orange County and San Diego County boundaries east to the Coachella Valley Plan and from the San Bernardino County line south to the San Diego County line.

Section 3.1 of the Planning Agreement states that there must be general agreement among the parties concerning the scope, cost, funding, and time required for completion of the MSHCP. The Advisory Committee, the consultants, the County of Riverside and the Wildlife Agencies all agreed on August 9, 1999 on the scope of the MSHCP. The MSHCP is a 75-year plan for the Conservation of 13 vegetation communities and 146 species. The geographic area is western Riverside County. The MSHCP has been developed using the NCCP biological principles. Therefore, the MSHCP was developed consistent with the Planning Agreement process regarding the scope of the plan and participating parties.

The Planning Agreement Identified the Natural Communities and Species

Section 6.2 of the Planning Agreement states that the initial focus of the MSHCP process will be the identification of species and habitats to be initially covered by the MSHCP and a determination by the Wildlife Agencies of the requirements necessary to provide for the conservation, protection, and management of identified species and habitats and promotion of their recovery. Section 3.7 of the Planning Agreement states as a goal the recovery of species presently listed as threatened or endangered under CESA and/or FESA. Section 6.2 of the Planning Agreement states that the initial focus of the MSHCP planning process will be "...the identification of species and habitats to be initially covered by the MSHCP and a determination by the Service and the Department of the likely requirements necessary to provide for the conservation, protection, and management of those species and habitats and promotion of their recovery."

The MSHCP undertook a lengthy, detailed process to identify sensitive habitats and plant and animal species to include in the Plan. Early in the planning process a Conceptual Conservation Scenario was developed based upon existing data bases, prior planning efforts, habitat assessment workshops, species occurrence data, coastal sage scrub habitat quality modeling, existing and planned land uses and principles of conservation biology. Based upon this data a conceptual map of a Core Areas and Linkages was prepared (Section 3.0 of Volume I of the MSHCP). The Conceptual Conservation Scenario was further divided into conservation analysis units for purposes of determining acreage figures. Then an informal gap analysis was used to determine gaps in conservation. The gap analysis identified 153,000 acres of private land necessary for Conservation, in addition to the Public/Quasi-Public Lands. An effort was made, wherever possible, to identify the major or key populations of Covered Species and indicate them as

Conservation Areas. For species where there was a dearth of information, habitat analyses were conducted to ensure that major habitat areas for these species were conserved and that inventorying would be conducted at a later date. The planning process involved consultations and participation by the Wildlife Agencies, consulting biologists and scientists with expertise on particular species in Riverside County, the compilation of existing data bases from varied sources, and several workshops with region biologists to identify areas and species for Conservation (see Section 3.1.1-3.a.10 and Section 3.2.1-3.3 of the MSHC and Finding 4.1.7 of this document).

The MSHCP identifies 13 habitat types in seven bioregions. Within these distinct 13 habitat types are a wide range of endangered and sensitive flora and fauna targeted for Conservation and management. These habitat types include: montane coniferous forest, woodlands and forest, coastal sage scrub, Riversidean alluvial fan sage scrub, desert scrub, chaparral, playas and vernal pools, grassland, riparian scrub/woodland/forest, meadows and marshes, cismontane alkali marsh, open water and agricultural land.

The end result of this process is that the MSHCP will protect Core Areas, which are a block of habitat of appropriate size, configuration, and vegetation characteristics which generally support the life history requirements of one or more Covered Species, and Linkages, which are connections between Core Areas with adequate size, configuration and vegetation characteristics to generally provide for "live-in" habitat and/or provide for genetic flow for identified Planning Species, supporting 13 vegetation communities and 146 Covered Species (including 32 species which are listed, or proposed to be listed). The MSHCP also includes a comprehensive program of avoidance and minimization measures, management and monitoring to ensure the health of the reserve system.

Therefore, the MSHCP has been developed consistent with the Planning Agreement process to identify natural communities and species in those communities, including endangered, threatened, proposed, candidate plants and animals.

The Planning Agreement Establishes a Process for Identification of Target Species

The Planning Agreement requires that a process be established for the identification of target species which shall collectively serve as indicators of the natural communities. Section 4.1.8 of these Findings discusses the comprehensive monitoring program. The monitoring program involves an initial inventory and assessment phase, a survey and monitoring design program phase, formulation of sampling protocols, ongoing management measures and adaptive management. One of the measures in the Initial Inventory and Assessment Phase (page 5-54 of Section 5.33 of the MSHCP), has the goal of identifying species as potential indicators of system condition. The survey and monitoring strategy is designed to maximize the number of species and attributes that can be measured under a set of protocols. Once the inventory assessment is complete, the specific long-term monitoring sampling locations, methods, and survey intensity will be fully developed after analyses of the habitat and species inventories. Although target species, which can serve as indicators, may result from the comprehensive monitoring program, the MSHCP monitoring and adaptive management programs are more comprehensive and involve more measurement variables

than simple selection of a target species but accomplish the goal for identifying species as potential indicators for system condition.

Therefore, the MSHCP has been developed consistent with the Planning Agreement process to identify target species which shall serve as indicators of natural communities.

The Planning Agreement Establishes a Process for the Collection of Data to Meet Scientifically Sound Principles for the Conservation of Species

Section 9 of the Planning Agreement discusses the standards for biological data. It establishes a process for the MSHCP to use the best currently available scientific information and requires that measures to fill data gaps and collect additional scientific data will be included in MSHCP implementation measures.

As part of the data collection process, the MSHCP biological consultants coordinated three separate sessions to assemble biological experts and get their input on species conservation and reserve design. The biological consultants also discussed future tasks, including creation of a habitat assessment model and the problems inherent in devising a model, including additional data collection and analysis.

Independent scientific input has been provided by the Science Review Panel, authorized by the Riverside Board of Supervisors. The Science Review Panel is headed by Dr. Michael F. Allen of the Center for Conservation Biology, University of California, Riverside. The Science Review Panel has provided written comments on substantive documents submitted to it for review. In addition, the MSHCP has adopted a scientifically-based comprehensive habitat assessment, monitoring, management and adaptive management program to provide ongoing data collection and ensure the Conservation of Covered Species and habitats. The MSHCP utilized an extensive data collection process and received input from scientific experts in the various fields of biology and conservation biology (see Finding 4.1.7 of this document).

Therefore, the Planning Agreement established a process for the collection of data to meet scientifically sound principles for the conservation of species.

The Planning Agreement Established a Process for Public Participation

Section 2.1 of the Planning Agreement establishes a cooperative process among the RCHCA, federal and state resource agencies, and affected stakeholders for the development of a successful MSHCP for Western Riverside County. Section 7 of the Planning Agreement details the roles and responsibilities of the signatories. Sections 7.1.1-7.1.5 of the Planning Agreement provide for public input throughout the MSHCP process. Section 7.1.1 advocates facilitating the preparation of the MSHCP through a participatory process to ensure ample opportunity for public input. Section 7.1.2 discusses the membership of an Advisory Committee. Section 7.1.3 requires the provision of adequate meeting times and facilities for the Advisory Committee, and Section 7.1.1 requires that ample opportunity for public comment will be provided in compliance with all

applicable laws. Section 7.1.4 requires that the MSHCP be prepared based upon consideration of the recommendations of the Advisory Committee. Section 7.1.5 requires that a Scientific Advisory Committee be appointed.

The County of Riverside formally constituted an advisory committee which was composed of representatives of the development community, environmental community, private land owners, the Wildlife Agencies, the Riverside County Farm Bureau, and other governmental organizations (“**Advisory Committee**”). The Advisory Committee was established and met from 1999-2003 to review the MSHCP work products and make recommendations to the Board of Supervisors. The Advisory Committee was actively involved in the formation of MSHCP alternative plan scenarios, selection of implementation mechanisms, MSHCP land acquisition process and the incentives program. The Advisory Committee meetings were open to the public and advertised on the County’s web site. The role of the Advisory Committee was to incorporate the points of view of numerous and varied organizations which have a stake in the Plan and forward recommendations to the Board of Supervisors regarding the MSHCP. The Public also had the opportunity to review and comment on Plan drafts, DEIR and Plan and FEIS. The County held numerous hearings across the County on the General Plan, Area Plans, and the MSHCP. In addition, the County established a web site for the Riverside County Integrated Plan (including the MSHCP), conducted outreach workshops, and held public hearings throughout the process. Section 6.0 of the EIR/EIS reviews the public review process. Finally, the County of Riverside Board of Supervisors did contract with the University of California Riverside, Department of Conservation Biology to assemble a scientific review panel.

Therefore, the Department finds that MSHCP was developed consistent with the Planning Agreement with regard to public participation.

The Planning Agreement Established a Process for Interim Project Review

Section 10.13 of the Planning Agreement states that an interim process for the review of projects prior to MSHCP approval will be cooperatively developed and instituted by participating RCHCA jurisdictions, the Service and the Department.

An interim project review process was established by the County, and Interim Project Review Guidelines were established on April 12, 1999. The purpose of the interim project review process was threefold: 1) to provide an opportunity for dialogue between the County, project applicants and the Wildlife Agencies; 2) to allow early review and consideration of proposed projects which could preclude the successful development of the MSHCP; and 3) to ensure that Wildlife Agencies document their concerns so that mitigation options can be explored.

The County and the Wildlife Agencies established an interim project review process and met regularly to discuss development projects which had the potential to adversely impact the eventual reserve design. During these meetings the Wildlife Agencies recommended mitigation measures or project alternatives which would help achieve the preliminary MSHCP Conservation objectives.

Therefore, the Department finds that the MSHCP was developed consistent with the Planning Agreement requirement for an interim review process.

The Planning Agreement Requires that Draft Documents associated with the Plan are Available for Review and Comment 45 Days Prior to Adoption

A notice of preparation for an EIR/EIS was circulated in October 2000. A Notice of Intent was published on September 7, 2001 in the Federal Register. Two public scoping meetings were held in October and November 2001. A Notice of Availability of the Draft Environmental Impact Report/Environmental Impact Statement for the MSHCP was issued on November 15, 2002. The review period was from November 15, 2002 to January 15, 2003. Public hearings were held on the adoption of the Plan and Certification of the EIR/EIS on May 5, 6 and 8, 2003. The Plan was adopted and the FEIR was certified by the County Board of Supervisors on June 17, 2003, well after the 45 day notice requirement. Additionally, the Implementing Agreement was Volume III of the MSHCP and was available for review along with other volumes of the MSHCP. Section 14 of the Planning Agreement requires that the Parties to the Agreement will cooperate in the preparation and processing of all MSHCP environmental documents pursuant to the requirements of NEPA and CEQA.

Therefore, the Department finds that the MSHCP was developed consistent with the Planning Agreement regarding review of draft documents.

Finding 4.1.3

CDFG finds that the Plan integrates adaptive management strategies that are periodically evaluated and modified based on information from the monitoring program which will assist in the conservation of covered species and ecosystems within the Plan Area. (Section 2820(a)(2) and Section III B(2)(f-g) and III(B)(1)(a) of the NCCP General Process Guidelines)

The MSHCP Permittees have committed to a comprehensive, funded, adaptive management program to ensure the needs of species and associated habitats are met. The basis for the adaptive management program is the definition of adaptive management taken from the California NCCP Act of 2002, which states: Adaptive management means "To use the results of new information gathered through the monitoring program of the Plan and from other sources to adjust management strategies and practices to assist in providing for the conservation of covered species" (Section 2805 (a)). The basic strategy of the MSHCP regarding adaptive management is a flexible and inductive approach where ecological theory and field experimentation are combined to monitor the status of the system and respond to the unexpected.

The MSHCP contains the management and monitoring programs (Section 5.0 of Volume I (Part 1 of 1)). The species objectives, Biological Monitoring Program, and Adaptive Management Strategy are inter-related as stated on page 5-52 of Section 5. The monitoring program components of the Plan involve establishing a baseline inventory on lands being incorporated into the reserve, establishing protocols for long-term monitoring and implementing a long-term

monitoring program. For adaptive management purposes, the long-term monitoring is the key element. The long-term monitoring program consists of the comprehensive repeat inventory of vegetation communities and wildlife habitats which occurs at 8-year intervals, a time period which can be used to detect broad-scale change.

The adaptive management strategy involves assessing the appropriate level of monitoring (see the Biological Monitoring Program, Section 5.0 of Volume I (Part 1 of 2) of the MSHCP and Finding 4.1.8 of this document) and then making management decisions if the data indicates that biological objectives for species and vegetation communities are not being met. In addition, the Regional Conservation Authority ("RCA") may authorize experimental adaptive management activities, work collaboratively with Reserve Managers, and scientific research programs regarding studies which contribute to adaptive management (page 5-36 of Section 5.0 of Volume I (Part 1 of 2) of the MSHCP. Adaptive management hypothesis testing will occur throughout the life of the permit and will be described in annual work plans.

The Reserve Managers and the Reserve Managers Oversight Committee of the RCA will be responsible for assessing the health of the system via the monitoring program and determining whether changes that are detected require some form of adaptive management and what those management measures will be (Sections 5.0 and 6.0 of Volume I of the MSHCP). Coordination of the management activities of the various existing and new Core Areas will enable an ecosystem approach to monitoring, management and adaptive management and will assist in the Conservation of Covered Species and ecosystems.

Details of the MSHCP monitoring program are found in Finding 4.1.8 of this document. In order to avoid repetition, that Section is hereby incorporated by reference.

Therefore, the Department finds that the MSHCP was developed consistent with the Planning Agreement regarding inclusion of adaptive management principles.

Finding 4.1.4 CDFG finds that the Plan provides for the protection of habitat, natural communities, and species diversity on a landscape or ecosystem level through the creation and long-term management of habitat reserves. (Section 2820(a)(3) and Section III B(2)(a, b, d and e) of the NCCP General Process Guidelines)

The MSHCP is designed as a multiple species plan in accordance with the NCCP General Process Guidelines and the tenets of conservation biology and is designed to function on a landscape/ecosystem level. The MSHCP reserve will consist of the 153,000 acres of private land and the 347,000 acres of existing Public/Quasi-Public lands which will become the hard-line MSHCP reserve as land for Conservation is acquired.

The Plan is the largest and most comprehensive HCP/NCCP ever attempted and covers a diverse landscape from urban cities to undeveloped foothills and montane forests. When fully implemented, the MSHCP will create an interconnected habitat preserve system throughout the

1.2 million acres of Western Riverside County with coverage for 146 species and 13 natural communities.

By the creation and long-term management of a landscape-level MSHCP reserve system, natural habitats, species and communities will be protected. The goal of the MSHCP is to create a self-sustaining, landscape-level reserve system. In the process of identifying reserve areas, the most intact, species rich, diverse habitats in Western Riverside County were identified and selected for Conservation (Section 3.0 of Volume 1 of the MSHCP). The potential reserves and Linkages were identified based upon vegetation maps, species occurrence data, input from the Wildlife Agencies, input from academia, and input from field biologists. The system of Core Areas and Linkages was designed to ensure perpetuation of native habitats and species based upon the data collected. A description of the MSHCP Core Areas and Linkages are found in Section 3.2.3 of Volume I (Part 1 of 2) of the MSHCP. There are 13 existing Core Areas, 5 existing Constrained Linkages, which are constricted connections expected to provide for movement of identified planned species between Core Areas where options for assembly of the connection are limited due to existing patterns of use, 1 existing Linkage, 3 existing Non-contiguous Habitat Blocks, 7 proposed Core Areas, 18 proposed Linkages, 24 proposed Constrained Linkages, 7 proposed Non-contiguous Habitat Blocks and 7 proposed extensions to existing Core Areas. Figure 3-2 (Volume I (Part 1 of 2) of the MSHCP) is a map of the proposed reserve.

Through the development of the MSHCP, land acquisition areas were identified and a broad Conservation Area was identified and further refined by the "Criteria Area". The "Criteria Area" represents the area from which 153,000 acres of private land will be conserved for the Reserve. The Criteria in the Plan will assist in determining what lands shall be acquired or otherwise conserved within the Criteria Area. The County has established a process called the Habitat Evaluation and Acquisition Negotiation Strategy by which property will be acquired for the Reserve. Property within the Reserve determined not necessary for Conservation will then become available for development through the usual development process.

The Reserve areas containing native species and habitats will be conserved in perpetuity and the Plan includes a management, monitoring and adaptive management program to ensure the ongoing health of the reserve system (Section 5.0, Volume I (Part 1 of 2) MSHCP). The long-term protection of species and habitats is the responsibility of the organization formed to oversee, administer and enforce the MSHCP, the Regional Conservation Authority, which is a joint regional authority formed by the signatory cities and County of Riverside. The RCA will oversee MSHCP implementation, including accumulating and distributing funds, acquisition of reserve lands, managing and monitoring reserve lands and Permittee compliance with the MSHCP. The duties and responsibilities of the RCA are outlined in Section 6.6.2 of Volume I (Part 2 of 2) of the MSHCP. The Wildlife Agencies will be involved with the RCA in the assemblage and management of the Reserve as specified in Section 6.6 of the MSHCP.

The individual species objectives in combination with the "Assumptions" (Section 4.1.2 of the Final EIR/EIS), the habitat protection measures in Section 6.0 of the MSHCP, and the management, monitoring and adaptive management plan (Section 5.0 of the MSHCP) will ensure

the Conservation of species and habitat. Conservation of large Core Areas will also ensure Conservation by providing large areas of habitat connected by Linkages. Conservation of populations of species in different geographic Core Areas will ensure that a catastrophic event in one or multiple cores will not threaten the survival of a particular species.

The management and monitoring program is found in Section 5.0 of Volume I (Part 1 of 2) of the MSHCP and contain the measures which protect habitats and species. The management measures include general management measures and species specific management measures. General management measures are found on page 5-5 of Section 5.0. Species specific management measures are found on page 5-13 to 5-35 of Section 5. Volume II, Section B of the MSHCP includes the detailed species accounts for all of the Covered Species. Individual species accounts include biological objectives, threat assessment, and management measures.

The management measures which will be implemented include: control of unauthorized access to the MSHCP Conservation Area using fencing, gates and signage; trash removal; trespass control for illegal dumping, off-road vehicle use and vandalism; and fire management. Section 5.0 and Page IIB-2 of Volume II, Section B of the species accounts discusses implementation objectives and management measures, including: 1) upland habitat quality within the MSHCP Conservation Area will be maintained and managed in similar or better condition as when the lands are conveyed; 2) wetland habitat quality within the MSHCP Conservation Area will be maintained and managed in similar or better condition as when the lands are conveyed; 3) best management practices will be implemented in accordance with the guidelines presented in Appendix C to the Plan, Volume I and 1601 Streambed Alteration Agreements for flood control facilities maintenance will be implemented; new lands adjacent to the MSHCP Conservation Area shall implement the Guidelines Pertaining to the Urban/Wildlands Interface from Section 6.1.4 of the MSHCP; and the maintenance of existing habitat conditions prior to reserve assembly policies in Section 6.1.5 of the MSHCP.

The MSHCP discusses measures which shall be implemented to protect Riparian/Riverine and Vernal Pool species listed on page IIB-3 and 4 (page IIB-2 of Volume II Section B and 6.1.2 of the MSHCP, Volume I). The narrow endemic policies shall be implemented for the benefit of the species listed on page IIB-4 of Volume II, Section B of the MSHCP (Section 6.1.3 of the Plan, Volume I). "Additional Survey Needs and Procedures" shall also be implemented to benefit the species listed on pages IIB-4 and 5 of Volume II, Section B of the MSHCP (Section 6.3.2 of the MSHCP, Volume I).

The MSHCP also includes implementation measures regarding "Covered Activities within the Criteria Area and Allowable Uses within the MSHCP" as per Section 7.0 of the MSHCP, Volume 1. Monitoring and management activities will be undertaken for each of the MSHCP Covered Species and these measures are detailed in Sections 5.2 and 5.3 of the MSHCP, Volume I. Finding 4.1.6 discusses the Plan and identification of compatible and incompatible activities.

The RCA will form several positions and committees to coordinate with the Wildlife Agencies and manage the reserve: the Funding Coordination Committee, the Reserve Managers Oversight

Committee, the RCA Executive Director, Reserve Managers, a Monitoring Program Administrator, and Independent Science Advisors. Management activities will be implemented by the Reserve Managers and Reserve Managers Oversight Committee ("RMOC"), as detailed in Section 5.2.1 of Volume I (Part 1 of 2) of the MSHCP. These groups and persons will work together to implement and coordinate reserve acquisition, management of lands, the comprehensive monitoring program, and the adaptive management program and ensure that the reserve is operated to protect individual species as well as habitat landscapes in the short- and long-term. More detailed information is presented in this document on the reserve system (Finding 4.1.5.B), sustainable populations of Covered Species (Finding 4.1.5.C), habitat diversity (Finding 4.1.5.C), movement and interchange of organisms (Finding 4.1.5.E), compatible and incompatible activities (Finding 4.1.6), a monitoring program (Finding 4.1.8), adequate funding (Finding 4.1.11) and adaptive management (Finding 4.1.3 and 4.1.9).

Therefore, the Department finds that MSHCP was developed consistent with the Planning Agreement regarding the protection of biological diversity through the creation and long-term management of reserves.

Finding 4.1.5.A CDFG finds that the development of reserve systems and conservation measures in the Plan Area provides, as needed for the conservation of species: conserving, restoring, and managing representative natural and seminatural landscapes to maintain the ecological integrity of large habitat blocks, ecosystem function, and biological diversity. (Section 2820(a)(4)(A) and NCCP General Process Guidelines III(B)(2)(e, f and g))

The MSHCP identifies 13 habitat types in seven (7) bioregions. Within these distinct 13 habitat types are a wide range of endangered and sensitive flora and fauna identified for Conservation and management. Table 2-1 of Volume I, part 1 of 2 of the Final MSHCP, displays the 50 vegetation community classifications which were collapsed to 13 general categories. These 13 communities are: montane coniferous forest; woodland and forest; coastal sage scrub; Riversidean alluvial fan sage scrub; desert scrub; chaparral; playas and vernal pools; grassland; riparian scrub, woodland, forest; meadows and marshes; cismontane alkali marsh; water; and, agricultural land.

The planning area was divided into seven bioregions which reflect areas where species turnover and habitat zone transitions are pronounced in relation to changes in landform and other environmental features. On the basis of existing data, the Bioregions reflect the different suites of species and vegetation communities in the Plan Area. The Plan proposes to conserve the following percentages of the seven bioregions (see Section 3.2.2 on page 3-19 of Volume 1) 80.3% of the Agua Tibia mountains, 71.7% of the San Jacinto Mountains, 64.6% of the San Jacinto Foothills, 59.9% of the Santa Ana Mountains, 61.3% of the Desert Transition, 34.5% of the San Bernardino Mountains, and 24.2% of the Riverside Lowlands. The discussion of bioregions is found in Section 2.1.2 on page 2-14 of Volume 1 of the MSHCP.

The ecological integrity of large habitat blocks, ecosystem function and biological diversity are contingent upon, but not limited to, the underlying scientific data, the geographic location of

selected reserves, the biological reasons why Core Areas were selected, the inter-connectedness of Core Areas, the size of Core Areas, the management measures, the monitoring measures, funding and administrative management.

On a habitat or landscape level, the Plan provides for six categories of maintaining or improving habitat: 1) natural regeneration, 2) maintenance, 3) enhancement, 4) revegetation, 5) restoration, and 6) creation. The type of activity required would be determined by the Reserve Manager and be dependent upon the condition of the habitat upon entry into the system and the needs of a target species or target vegetation community in the context of the entire reserve system and the Reserve Management Oversight Committee.

The size of the Plan Area requires that a certain amount of flexibility be built into the reserve assembly process. One of the first steps is for the RCA to verify the precise acreage, location, amount and status of Public/Quasi-Public ("PQP") lands in the MSHCP Conservation Area. The following procedure and analysis shall apply if a Permittee elects to use Public/Quasi-Public Lands within the MSHCP Conservation Area in a way that alters the land use such that it would not contribute to Reserve Assembly: The Permittee shall make findings that the replacement acreage is biologically equivalent or superior to the existing property. The biological equivalency or superior analysis shall address the effects on habitats, Covered Species, core areas (as identified on the MSHCP Core and Linkage Map), linkages and constrained linkages (as identified on the MSHCP Core and Linkage Map), MSHCP Conservation Area configuration and management (such as increases or decreases in edge), and ecotones (defined as the areas of adjoining Vegetation Communities, generally characterized by greater biological diversity) and other conditions affecting species diversity (such as invasion by exotic species). The Permittees shall submit the equivalency analysis in narrative and graphic form comparing the effects/benefits of the proposed project to the Wildlife Agencies (Service and California Department of Fish and Game) for review and concurrence. Impacts to Habitats within existing Public/Quasi-Public Lands shall be compensated by purchase and dedication into the MSHCP Conservation Area of land of no less than a ratio of 1:1 that is in addition to the Additional Reserve Lands. This procedure also applies to roads and other facilities which take land from Conservation Area within the MSHCP Conservation Area.

Additionally, the total acreage of the Criteria Cells (300,000 acres) is greater than the acquisition goal of 153,000 acres of private lands. Reserve Assembly will involve review of a variety of project-specific vegetation data to refine and guide the assembly process (Section 2.1.1 of the MSHCP). Because the MSHCP does not begin with a hardline reserve configuration but will result in a hardline reserve, facts on the ground may influence Reserve assembly in areas where there are multiple choices. For instance, if a Linkage is proposed to be 1,500 feet wide and the Criteria Area for this Linkage is a much wider area than the 1,500 feet, there may be multiple ways of assembling this Linkage. The Linkage does not become part of the hardline reserve until it is assembled.

Decisions on parcels acquired by the local Permittee for Reserve Assembly will be made by the Regional Conservation Authority.. In addition, the RCA and Permittee staff shall jointly review

development applications within the Criteria Area to ensure that the Conservation goals of the MSHCP are met. Results of the Joint Project Review, for projects within the Criteria Area and in additional survey areas, shall be sent to the Wildlife Agencies for review. The Wildlife Agencies and the RCA staff shall also meet every ninety (90) days for at least the first 3 years to review the status of Plan Implementation (Section 6.6.2(F)(1-2) of the MSHCP). Finally, the Plan allows for a Criteria Area refinement process (Section 6.5 of the MSHCP) for the purposes of correcting minor discrepancies or inaccuracies or for evaluating alternative Conservation proposals involving single or multiple landowners and jurisdictions that are of equivalent or superior benefit to Covered Species. These changes many involve Core Areas and Linkages so long as it is demonstrated that the refinements would be beneficial to the Covered Species. The refinement process is different from the minor and major amendment process of the MSHCP (Sections 20.4 and 20.5 of the Implementing Agreement, Volume III of the MSHCP).

Integral to maintaining ecosystem integrity is the identification of a Conservation Area that consists of existing and future large Core Areas which are buffered from or take into account edge effects and which are connected by different types of Linkages to maintain habitat connectivity, genetic flow, dispersal, and provide for ecosystem function and biological diversity. Section 6.1.4 of the MSHCP contains the Guidelines Pertaining to the Urban/Wildlands Interface, which incorporate measures to consider drainage, toxics, lighting, noise, invasives, barriers, and grading/land development. The Linkages (see Finding 4.1.5.E of this document) serve the function of connecting large blocks of habitat (i.e., National Forests with Core Areas), allowing for dispersal of species and thus maintaining biodiversity. Figure 3-2 on page 3-25 of Volume I (Part 1 of 2) of the MSHCP is a map showing the proposed Cores and Habitat Blocks, proposed Linkages, and existing Cores and Linkages. Section 3.2.3 of Volume I (Part 1 of 2) contains a written description of the Conservation Area and Section 3.3 describes and shows the Conservation Area for each of the 16 Area Plans which are the community planning areas defined in the Riverside County General Plan and contains the rationale for why lands were included in the Criteria Area which is the area comprised of cells depicted on Figure 3-1 of the MSHCP. A detailed analysis of the Reserve system is found in this document in Finding 4.1.5.E.

Table 5-1 of the MSHCP discusses management responses to disturbance regimes, including fire, disturbed habitat, exotic plant invasion, sedimentation and erosion. Management actions in response to these disturbances include natural regeneration, enhancement, revegetation and restoration (pages 5-11 and 5-12 of Section 5.0 of the MSHCP). In addition, Reserve managers, in coordination with the RCA, will make determinations as to the necessity for restoration, revegetation and enhancement at their respective reserves.

Section 5.0 of Volume I (Part 1 of 1) of the MSHCP contains the management and monitoring programs. As stated on page 5-52 of Section 5, the species objectives, Biological Monitoring Program, and Adaptive Management Strategy are inter-related. The monitoring components of the Plan involve establishing a baseline inventory on lands being incorporated into the reserve, establishing protocols for long term monitoring and implementing a long-term monitoring program. For adaptive management purposes, the long-term monitoring is the key element. The long-term monitoring program consists of the comprehensive repeat inventory of vegetation

communities and wildlife habitats which occurs at 8-year intervals, a time period which can be used to detect broad-scale change. Details of the MSHCP monitoring program are found in Finding 4.1.8 of this document. In order to avoid repetition, Finding 4.1.8 is hereby incorporated by reference.

The MSHCP contains a comprehensive management plan. Volume II, Section B of the MSHCP includes the detailed species accounts for all of the Covered Species. Page IIB-2 of Volume II, Section B of the species accounts discusses implementation objectives, and management measures to protect reserve habitat, including: 1) upland habitat quality within the MSHCP Conservation Area will be maintained and managed in similar or better condition as when the lands are conveyed; 2) wetland habitat quality within the MSHCP Conservation Area will be maintained and managed in similar or better condition as when the lands are conveyed; 3) best management practices will be implemented in accordance with the guidelines presented in Appendix C of the MSHCP, Volume I and 1601 Streambed Alteration Agreements for flood control facilities maintenance will be implemented; new development adjacent to the MSHCP Conservation Area shall implement the Guidelines Pertaining to the Urban/Wildlands Interface from Section 6.1.4 of the MSHCP; and the maintenance of existing habitat conditions prior to reserve assembly policies in Section 6.1.5 of the MSHCP. Additionally, Page IIB-2 of Volume II Section B of the MSHCP discusses measures in 6.1.2 of the MSHCP, Volume I, which shall be implemented to protect Riparian/Riverine and Vernal Pool species as listed on page IIB-3 and 4. The narrow endemic policies in Section 6.1.3 of the MSHCP, Volume I shall be implemented for the benefit of the species listed on page IIB-4 of Volume II, Section B of the MSHCP. "Additional Survey Needs and Procedures" in Section 6.3.2 of the MSHCP, Volume I shall also be implemented to benefit the species listed on pages IIB-4 and 5 of Volume II, Section B of the MSHCP. Section 6.3.2 of the MSHCP states that there is not enough existing available information on the species listed on page 6-63 and 6-65 to satisfy FESA issuance criteria and therefore, additional surveys are required in order to gain the information to achieve coverage. The MSHCP states that when species-specific objectives for these species are satisfied, findings will be made and forwarded to the Reserve Managers Oversight Committee for evaluation and consideration (page 6-65 and 6-69 of Section 6.0 of the MSHCP).

In addition to the management measures to protect species, the MSHCP (page 5-8 of Section 5.0 of Volume I (Part 1 of 2) of the MSHCP) requires that species presence and continued use shall be maintained at 75% of the locations identified for each species in the species accounts and measured at 8 (eight) year intervals. Species declines below the 75% level shall trigger management actions based on site-specified information and recommendations.

The Reserve Managers and the Reserve Manager Committee of the RCA will be responsible for assessing the health of the system via the monitoring program and determining whether changes that are detected require some form of adaptive management and what that management measure will be. Coordination of the management activities of the various existing and new Core Areas will enable an ecosystem approach to monitoring, management and adaptive management and will assist in the Conservation of Covered Species and ecosystems.

Therefore, the Department finds that MSHCP was developed consistent with the Planning Agreement regarding the development of a reserve system which will maintain ecosystem function and biological integrity.

Finding 4.1.5.B CDFG finds that the development of reserve systems and conservation measures in the Plan Area provides, as needed for the conservation of species: establishing one or more reserves or other measures that provide equivalent conservation of Covered Species within the Plan Area and Linkages between them and adjacent habitat areas outside the Plan Area. (Section 2820(a)(4)(B) and General Process Guidelines III(B)(2)(a and d))

Early in the planning process a Conceptual Conservation Scenario was developed based upon existing data bases, prior planning efforts, habitat assessment workshops, species occurrence data, coastal sage scrub habitat quality modeling, existing and planned land uses and principles of conservation biology. Based upon this data a conceptual map of Core Areas and Linkages was prepared (Section 3.0 of Volume I of the MSHCP). The Conceptual Conservation Scenario was further divided into conservation analysis units for purposes of determining acreage figures. Then an informal gap analysis was used to determine gaps in Conservation. The gap analysis identified 153,000 acres of private land necessary for Conservation, in addition to the public lands. An effort was made, wherever possible, to identify the major or key populations of Covered Species and indicate them as Conservation Areas. For species where there was a dearth of information, habitat analyses were conducted to ensure that major habitat areas for these species were conserved and that inventorying would be conducted at a later date.

There are a number of existing reserves which were established either as mitigation or for single-species conservation, in particular the Stephens' kangaroo rat. The focus of prior mitigation or conservation were several target species including the Stephens' kangaroo rat, least Bell's vireo, the southwestern willow flycatcher, the coastal California gnatcatcher and the Quino checkerspot butterfly. Critical areas for these species have been identified and have been or are in the process of being acquired. For instance, the main areas containing populations of coastal California gnatcatcher are slated for Conservation. This is true for Quino checkerspot butterfly as well. This means that the major population centers are conserved and will be subject to the management and monitoring measures and much smaller, less significant populations can be allowed for take.

The identification and Conservation of key populations and the system of large core reserves in conjunction with the individual species objectives, "Assumptions" (Section 4.1.2 of the Final EIR/EIS), the habitat protection measures in Section 6.0 of the MSHCP, and the management, monitoring and adaptive management plan (Section 5.0 of the MSHCP) will ensure the Conservation of species and habitat. Conservation of large Core Areas will also ensure Conservation by providing large areas of habitat connected by Linkages. Preservation of populations of species in different geographic Core Areas will ensure that a catastrophic event in one or multiple cores will not threaten the survival of a particular species.

A discussion of the flexibility built into the reserve assembly process is described in Finding 4.1.5.A of this document.

The Conservation Area consists of a group of large Core Areas connected by a various types of Linkages to maintain connectivity and genetic flow. The MSHCP has a schematic map showing the proposed Cores and Habitat Blocks, proposed Linkages, and existing Cores and Linkages (Figure 3-2 on page 3-25 of Volume I (Part 1 of 2) and Finding 4.1.5.E of this document). The Plan contains a written description of the Conservation Area and Section 3.3 describes and shows the Conservation Area for each of the 16 Area Plans and contains the rationale for why lands were included in the Criteria Area (Section 3.2.3 of Volume I (Part 1 of 2)). The Covered Species and habitats will be conserved in perpetuity and the Plan includes a management, monitoring and adaptive management plan to ensure the ongoing health of the reserve system.

As stated in the MSHCP on page 3-4, "Connectedness through landscape Linkages and movement corridors is important because habitat fragmentation and isolation lead to extinction of local populations and are the most serious threats to biological diversity." Linkages permit the following: 1) travel, migration and meeting of mates for wide-ranging animals; 2) plant propagation; 3) interchange of genetic material; 4) movement of populations in response to environmental changes and disasters, and 5) colonization of available habitat by individuals.

The value of Linkages is that they can act as permanent residences and/or dispersal. Therefore, they can serve to help repopulate Core Areas or the Core Areas can serve to repopulate the Linkages. One goal of the MSHCP is to have multiple Linkages attached to Core Areas in order to minimize the problems associated with sinks and catastrophic incidents.

There are a significant number of Linkages in the proposed reserve system which connect reserves in the Plan Area and connect the reserves with adjoining habitat in other jurisdictions (see Finding 4.1.5.E of this document). Proposed Linkages 1, 4, 5, 6, 9, 10, 17 and 18 all connect lowland areas in Western Riverside County with substantial habitat areas. Linkage 1 connects the Santa Ana Mountains with the Lake Mathews, Estelle Mountain Core Area. Linkages 4, 5, and 6 connect Riverside County with San Bernardino County. The reserve system was also designed to take into consideration regional connectivity issues, including the San Diego MSCP, the Coachella Valley MSHCP, and the County of San Bernardino.

There are four Constrained Linkages connecting the Santa Rosa Plateau and Tenaja Corridor to San Diego County. Also proposed Linkage 9 is the Tenaja Corridor connecting the Santa Rosa Plateau to the Cleveland National Forest.

There are two Constrained Linkages between the Santa Ana Mountains and the Santa Ana River/Prado Basin/Chino Hills State Park. There is a landscape Linkage between the Santa Margarita Ecological Reserve and the Santa Rosa Plateau. Murrieta Creek, Pechanga and Temecula Creeks are Constrained Linkages connecting east-west and north-south. Pechanga Creek is a Constrained Linkage connecting Riverside and San Diego Counties.

Temecula Creek is a Constrained Linkage that connects Murrieta Creek and lands east with Vail Lake, Sage and Wilson Valleys (proposed Core Area 7). This proposed Core Area connects on the south to the Agua Tibia Mountains. Proposed Linkages 17 and 18 (Kolb Creek and Arroyo Seco Creek) connect the Wilson Valley Core Area with the Agua Tibia Wilderness. Proposed Linkage 16 (Tule Creek) connects the proposed Wilson Valley Core Area with proposed Core Area 6 (Silverado Ranch) and existing Core Area L (Beauty Mountain Management Area and Anza Borrego Desert State Park). The Wilson Valley Core Area connects to the north with Proposed Core Area 4 (Cactus Valley) and the San Bernardino Mountains. Proposed Linkage 13 (Tucalota Creek and upland habitat) connects the Wilson Valley Core Area to the Diamond Valley Lake, Lake Skinner and Johnson Ranch Core Area J.

Proposed Core Area 3 (Potrero) is connected by Linkages to the San Bernardino Mountains, the proposed Upper San Jacinto River Reserve, the existing Core Area H (Lake Perris State Recreation Area) and San Bernardino County.

Therefore, the Department finds that MSHCP was developed consistent with the Planning Agreement regarding provision of reserves and Linkages for the conservation of Covered Species.

Finding 4.1.5.C CDFG finds that the development of reserve systems and conservation measures in the Plan Area provides, as needed for the conservation of species: protects and maintains habitat areas large enough to support sustainable populations of Covered Species. (Section 2820(a)(4) (C) and NCCP General Process Guidelines III(B)(2)(a, b, and d))

The Plan proposes to set aside 500,000 acres of land for habitat and species, including 153,000 acres of private land. Lands to be conserved will be assessed via the MSHCP criteria-based approach (Section 3.2 of the MSHCP) resulting in a hard line reserve. The Criteria Area is defined as the area comprised of cells depicted on Figure 3-1 of the MSHCP.

The appropriateness of the size of a habitat area is contingent upon the species or habitat that is being conserved. Generally speaking, the larger the animal, the larger the habitat required. In the Plan Area, the animal requiring the most acreage is the mountain lion. The animal with the smallest habitat requirement is the Delhi sands flower-loving fly. The approach and goal of the MSHCP is to provide large core reserves for animals with large area requirements and "postage stamp" size reserves for plants and animals with site specific requirements, i.e., which cannot be addressed through large-scale habitat protection. The MSHCP provides for habitat protection for the Delhi Sands flower-loving fly and for endemic plant species. Survey and acquisition requirements will be in effect for endemic plants until stated conservation goals are met because many of them are scarce and tied to particular soil types, (i.e., Munz's onion and San Jacinto Valley crownscale).

A description of the Core Areas and Linkage is found in Section 3.2.3. There are 13 existing Core Areas, 5 existing Constrained Linkages, 1 existing Linkage, 3 existing Non-contiguous Habitat Blocks, 7 proposed Core Areas, 18 proposed Linkages, 24 proposed Constrained

Linkages, 7 proposed Non-contiguous Habitat Blocks and 7 proposed extensions to existing Core Areas. Figure 3-2 is a map of the proposed reserve.

The largest of the existing Core Areas are the National Forest Lands (Cleveland National Forest, 71,490 acres and the San Bernardino National Forest, 149,750 acres). Other existing Core Areas range in size from 2,500 acres (Sycamore Canyon) to 24,360 (Diamond Valley) and 24,750 acres (Beauty Mountain Management Area and the Anza Borrego Desert State Park). The existing Core Areas were acquired because of their resource richness, i.e., the Lake Mathews area, the Santa Rosa Plateau Ecological Reserve, the Santa Margarita Ecological Reserve, the Lake Perris State Recreation Area, and the San Jacinto Wildlife Area. The proposed Core Areas range in size from 3,220 acres (San Jacinto River) to 50,000 acres (Wilson Valley area). Again, the proposed reserves were selected because of the quality of the remaining natural habitat, openness, lack of development, lack of infrastructure, etc. The Alberhill area is an exception because of its location adjacent to the Interstate 15 and development in the Lake Elsinore area. However, the Alberhill area was selected because of the concentration of sensitive plants and the coastal California gnatcatcher population.

Linkages are an important factor in the sustainability of animal populations because of dispersal and genetic flow. An in-depth description of Linkages is provided in 4.1.5.E of this document. Several factors in whether a reserve is large enough are the configuration of the reserve in relation to edge effect, incompatible uses, invasive plants and animals, and sources of disturbance. The Plan addresses threats to species, short-term management and long-term management issues. It is expected that once protected in Core Areas, populations of species will increase. These issues are addressed in other Findings in this document. Finding 4.1.9 of this document provides a description of the management program and Finding 4.1.8 provides a description of the monitoring program. Finding 4.1.6 provides a discussion of compatible and incompatible activities.

Therefore, the Department finds that MSHCP was developed consistent with the Planning Agreement regarding providing large enough reserves for the conservation of Covered Species.

Finding 4.1.5.D

CDFG finds that the development of reserve systems and conservation measures in the Plan Area provides, as needed for the conservation of species: incorporating a range of environmental gradients and high habitat diversity to provide for shifting species distributions due to changed circumstances. (Section 2820(a)(4)(D) and NCCP General Process Guidelines III(B)(2)(a, b and d))

The Plan is the largest and most comprehensive HCP/NCCP ever attempted and covers a diverse landscape from urban cities to undeveloped foothills and montane forests. In addition to the presence of multiple habitats, the Plan stretches across the Santa Ana Mountains, Riverside Lowlands, San Jacinto Foothills, San Jacinto Mountains, Agua Tibia Mountains, Desert Transition and San Bernardino Mountains bioregions. The Plan Area extends approximately from the Orange County and San Diego County boundaries east to the Coachella Valley Plan and from

the San Bernardino County line south to the San Diego County line. When fully implemented, the MSHCP will create an interconnected habitat preserve system throughout the 1.2 million acres of Western Riverside County.

The MSHCP identifies 13 habitat types in seven (7) bioregions. Within these distinct 13 habitat types are a wide range of endangered and sensitive flora and fauna targeted for conservation and management. These habitat types include: montane coniferous forest, woodlands and forest, coastal sage scrub, Riversidean alluvial fan sage scrub, desert scrub, chaparral, playas and vernal pools, grassland, riparian scrub/woodland/forest, meadows and marshes, cismontane alkali marsh, open water and agricultural land. The Conservation Area stretches across the Santa Ana Mountains, Riverside Lowlands, San Jacinto Foothills, San Jacinto Mountains, Agua Tibia Mountains, Desert Transition and San Bernardino Mountains bioregions. The Plan proposes to conserve 80.2% of the Agua Tibia Mountains, 71.7% of the San Jacinto Mountains, 60.7% of the San Jacinto Foothills, 59.9% of the Santa Ana Mountains, 36.5% of the Desert Transition, 33.0% of the San Bernardino Mountains, and 23.7% of the Riverside Lowlands. Clearly, the Plan accomplishes capturing habitat diversity and environmental gradients, from lowlands to foothills to mountains.

Section 6.8 of Volume I (Part 2 of 2) of the MSHCP analyzes the issue of unforeseen and changed circumstances. The definition of "changed circumstances" is found on Page 6-102 in Section 6.8.3. The changed circumstances which are anticipated in the MSHCP are: short-interval return fire; flood; drought; and invasion by exotic species. The MSHCP provides management measures and implementation policy in the Plan to address each of these potential changed circumstances. Table 5-1 of the MSHCP discusses management responses to disturbance regimes, including fire, disturbed habitat, exotic plant invasion, sedimentation and erosion. Management actions in response to these disturbances include natural regeneration, enhancement, revegetation and restoration (pages 5-11 and 5-12 of Section 5.0 of the MSHCP). In addition, Reserve Managers, in coordination with the RCA, will make determinations as to the necessity for restoration, revegetation and enhancement at their respective reserves.

On a habitat or landscape level, the Plan provides for six categories of maintaining or improving habitat: 1) natural regeneration, 2) maintenance, 3) enhancement, 4) revegetation, 5) restoration, and 6) creation. The type of activity required would be determined by the Reserve Manager and be dependent upon the condition of the habitat upon entry into the system and the needs of a target species or target vegetation community in the context of the entire reserve system and the Reserve Management Oversight Committee.

The problem of shifting species distribution due to changed circumstances is in part a reserve design issue and a management issue. Inclusion of multiple Linkages to Core Areas will allow for dispersal. The fact that there are multiple Core Areas supporting similar habitat and species assemblages also allows for manual relocation or pioneer species and habitat succession. These are all factors that can be handled at the reserve management level. Concentration of administration in the RCA and the committee structure will allow these issues to be discussed and dealt with on an individual reserve level but also on the totality of the reserve. Monitoring of

species in the Linkages and in the reserves will give reserve administrators an idea of population trends. Coordination of monitoring programs will allow reserve administrators to make decisions to adjust existing management measures which perhaps adversely impact one species over another. Reserve management plans can be coordinated to avoid duplication and increase effectiveness of management. Reserve management plans will also have to include measures to deal with invasive plants and animals, human intrusion, off-road vehicles, fire and other anticipated changed circumstances.

Therefore, the Department finds that MSHCP was developed consistent with the Planning Agreement regarding incorporation of a variety of environmental gradients and habitat diversity to allow for shifting species distribution due to changed circumstance(s).

Finding 4.1.5.E

CDFG finds that the development of reserve systems and conservation measures in the Plan Area provides, as needed for the conservation of species: sustaining the effective movement and interchange of organisms between habitat areas and maintains the ecological integrity of the habitat areas within the Plan Area. (Section 2820(a)(4)(E) and NCCP General Process Guidelines III(B)(2)(a, b and d))

The MSHCP Conservation Area will consist of a group of large Core Areas connected by a various types of Linkages to maintain connectivity and genetic flow. Figure 3-2 on page 3-25 of Volume I (Part 1 of 2) of the MSHCP is a map showing the proposed Cores and Habitat Blocks, proposed Linkages, and existing Cores and Linkages. Section 3.2.3 of Volume I (Part 1 of 2) contains a written description of the Criteria Area and Section 3.3 describes and shows the Conservation Area for each of the 16 Area Plans and contains the rationale for why lands were included in the Criteria Area. The Covered Species and habitats will be conserved in perpetuity and the Plan includes a management, monitoring and adaptive management program to ensure the ongoing health of the reserve system.

The total acreage of the Criteria Cells (300,000 acres) is greater than the ultimate acquisition goal of 153,000 acres of private lands. Reserve Assembly will involve review of a variety of project-specific vegetation data to refine and guide the assembly process (Section 2.1.1 of the MSHCP). Because the MSHCP does not begin with a hardline reserve configuration but will result in a hardline reserve, facts on the ground may influence Reserve assembly in areas where there are multiple choices. For instance, if a Linkage is proposed to be 1,500 feet wide and the Criteria Area for this Linkage is a much wider area than the 1,500 feet, there may be multiple ways of assembling this Linkage. The Linkage does not become part of the hardline reserve until it is assembled.

Decisions on parcels to acquire for reserve assembly will be made by the Regional Conservation Authority. In addition, the RCA and Permittee staff shall jointly review development applications within the Criteria Area to ensure that the conservation goals of the MSHCP are met. Results of the Initial Project Review, for projects within the Criteria Area and in additional survey areas,

shall be sent to the Wildlife Agencies for review. The Wildlife Agencies and the RCA staff shall also meet every ninety (90) days for at least the first 3 years to review the status of Plan Implementation (Section 6.6.2(F)(1-2) of the MSHCP). Finally, the Plan allows for a Criteria Area refinement process (Section 6.5 of the MSHCP) for the purposes of correcting minor discrepancies or inaccuracies or for evaluating alternative conservation proposals involving single or multiple landowners and jurisdictions that are of equivalent or superior benefit to Covered Species. These changes may involve cores and Linkages so long as it is demonstrated that the refinements would be beneficial to the Covered Species. The refinement process is different from the minor and major amendment process of the MSHCP (Sections 20.4 and 20.5 of the Implementing Agreement, Volume III of the MSHCP).

Existing and proposed roads pose a potential obstacle to wildlife movement by direct blockage of movement and/or mortality. Sections 7.5.1-5.3 of the MSHCP include guidelines for the construction of wildlife crossings and the siting and design of roads within Public/Quasi-Public Lands and the Criteria Area. In addition, the comprehensive monitoring program will conduct assessments of the effectiveness of crossings (page 5-79 of Section 5.36 of the MSHCP), including the use of radio collar transmitters, track surveys, remote camera stations, and road kill reports.

Section 3.0 of Volume 1 (Part 1 of 2) of the MSHCP describes Linkages and their utility. The distinction between Constrained Linkage and Linkages, in MSHCP, is that Constrained Linkages are a constricted connection expected to provide for movement of identified species between Core Areas, where options for assembly of the connection are limited due to existing patterns of use, and Linkages provide permanent resident live-in habitat as well as movement. Linkages provide a full range of ecosystem processes and enable seed dispersal and animal movement over a period of generations.

As stated in the MSHCP on page 3-4, "Connectedness through landscape Linkages are important because habitat fragmentation and isolation lead to extinction of local populations and are the most serious threats to biological diversity." Linkages permit the following: 1) travel, migration and meeting of mates for wide-ranging animals; 2) plant propagation; 3) interchange of genetic material; 4) movement of populations in response to environmental changes and disasters, and 5) colonization of available habitat by individuals.

A description of the Core Areas and Linkages is found in Section 3.2.3. There are 13 existing Core Areas, 5 existing Constrained Linkages, 1 existing Linkage, 3 existing Non-contiguous Habitat Blocks, 7 proposed Core Areas, 18 proposed Linkages, 24 proposed Constrained Linkages, 7 proposed Non-contiguous Habitat Blocks and 7 proposed extensions to existing Core Areas. Figure 3-2 is a map of the proposed reserve.

The EIR/EIS states that the MSHCP includes all the Core Areas and Linkages identified in the California Wilderness Coalition Report for Core Areas and Linkages in the South Coast Ecoregion, with the exception of areas which are not a part of the Plan Area, including American Indian lands.

The Linkages are too many to enumerate, but the function of Linkages are to facilitate specific wildlife movement through or facilitate the permanent residence and dispersal of species in a large landscape between Core Areas. Many riparian areas function as narrow Linkages for the movement of birds, coyotes, etc. but can also serve nesting functions as well for riparian species. The value of Linkages is that they can act as permanent residences and/or dispersal. Therefore, they can serve to help repopulate Core Areas or the Core Areas can serve to repopulate the Linkages. One goal of the MSHCP is to have multiple Linkages attached to Core Areas in order to minimize the problems associated with sinks and catastrophic incidents.

There are a significant number of Linkages in the proposed reserve system. Proposed Linkages 1, 4, 5, 6, 9, 10, 17 and 18 all connect lowland areas in Western Riverside County with substantial habitat areas. Linkage 1 connects the Santa Ana Mountains with the Lake Mathews, Estelle Mountain Core Area. Linkages 4, 5, and 6 connect Riverside County with San Bernardino County.

There are four Constrained Linkages connecting the Santa Rosa Plateau and Tenaja Corridor to San Diego County. Also proposed Linkage 9 is the Tenaja Corridor connecting the Santa Rosa Plateau to the Cleveland National Forest

There are two Constrained Linkages between the Santa Ana Mountains and the Santa Ana River/Prado Basin/Chino Hills State Park. There is a landscape Linkage between the Santa Margarita Ecological Reserve and the Santa Rosa Plateau. Murrieta Creek, Pechanga and Temecula Creeks are Constrained Linkages connecting east-west and north-south. Pechanga Creek is a Constrained Linkage connecting Riverside and San Diego Counties.

Temecula Creek is a Constrained Linkage that connects Murrieta Creek and lands east with Vail Lake, Sage and Wilson Valleys (proposed Core Area 7). This proposed Core Area connects on the south to the Agua Tibia Mountains. Proposed Linkages 17 and 18 (Kolb Creek and Arroyo Seco Creek) connect the Wilson Valley Core Area with the Agua Tibia Wilderness. Proposed Linkage 16 (Tule Creek) connects the proposed Wilson Valley Core Area with proposed Core Area 6 (Silverado Ranch) and existing Core Area L (Beauty Mountain Management Area and Anza Borrego Desert State Park). The Wilson Valley Core Area connects to the north with Proposed Core Area 4 (Cactus Valley) and the San Bernardino Mountains. Proposed Linkage 13 (Tucalota Creek and upland habitat) connects the Wilson Valley Core Area to the Diamond Valley Lake, Lake Skinner and Johnson Ranch Core Area J.

The Diamond Valley Lake, Lake Skinner, Johnson Ranch proposed Core Area is centrally located between Proposed Core Area 2 (Antelope Valley) and the Cactus Valley Core Area and Wilson Valley Core Area.

The proposed Cactus Valley Core Area (4) is located north-south between the upper San Jacinto River Core Area and the proposed Wilson Valley Core Area. A Constrained Linkage connects the proposed Cactus Valley Core Area and the upper San Jacinto River Core Area.

Proposed Core Area 3 (Potrero) is connected by linkages to the San Bernardino Mountains, the proposed Upper San Jacinto River Reserve, the existing Core Area H (Lake Perris State Recreation Area) and San Bernardino County.

Therefore, the Department finds that MSHCP was developed consistent with the Planning Agreement regarding the effective movement and interchange of organisms and maintaining the ecological integrity of the habitat areas.

Finding 4.1.6

CDFG finds that the Plan identifies activities, and any restriction on those activities, allowed within the Reserve that are compatible with the conservation of species, habitats, natural communities, and their associated ecological functions. (Section 2820(a)(5) and NCCP General Process Guidelines III(B)(2)(c and e))

The MSHCP includes implementation measures regarding "Covered Activities within the Criteria Area and Allowable Uses within the MSHCP" as per Section 7.0 of the MSHCP, Volume 1. Monitoring and management activities will be undertaken for each of the MSHCP Covered Species and these measures are detailed in Sections 5.2 and 5.3 of the MSHCP.

Integral to maintaining ecosystem integrity is the identification of a Conservation Area that consists of existing and future large Core Areas which are buffered from or take into account edge effects and which are connected by different types of Linkages to maintain habitat connectivity, genetic flow, dispersal, and provide for ecosystem function and biological diversity. Section 6.1.4 of the MSHCP contains the Guidelines Pertaining to the Urban/Wildlands Interface, which incorporate measures to consider drainage, toxics, lighting, noise, invasives, barriers, and grading/land development and minimize impacts from incompatible development.

Through the development of the MSHCP, lands for acquisition were identified and a broad Conservation Area was identified and further refined by the "Criteria Map". The "Criteria Area" represents the area from which 153,000 acres of private land will be conserved for the Reserve. The Criteria in the Plan determine what lands shall be acquired within the Criteria Area. The County has established a process called the Habitat Evaluation and Acquisition Negotiation Strategy by which property will be acquired for the Reserve. Property within the Criteria Area determined not necessary for Conservation will then become available for development through the usual development process.

For the purposes of compatible and incompatible uses the Plan Area can be divided into three general categories. The first category is for covered activities outside of the Criteria Area and Public/Quasi-Public lands (Section 7.1 of the MSHCP). Take authorization is permitted in this category subject to the policies of the MSHCP apply, i.e., areas subject to Riparian and Riverine Areas and Vernal Pools, Narrow Endemic Plant Species, and Additional Survey Needs and Procedures (Section 7.1 of the MSHCP).

The second general category is covered activities within existing Public/Quasi-Public lands (Section 7.2 of the MSHCP). The third category is covered activities within the Criteria Area.

The Plan includes guidelines for development within the Criteria Area. Section 7 of Volume I (Part 2 of 2) of the MSHCP, contains criteria for the implementation of covered public and private activities within the Criteria Area, including roads, other infrastructure, single-family homes, and agricultural lands, as well as compatible uses within the Criteria Area related to management, monitoring and scientific research.

Section 4.3 of the EIR/EIS (Volume IV of the MSHCP) includes an analysis of the impact of the MSHCP on population, housing and employment. The analysis in the EIR/EIS notes that implementation of the MSHCP will cause dwelling units and commercial facilities to be shifted to areas not slated for Conservation. The implementation of the MSHCP will be consistent with the County of Riverside's updated General Plan and Housing Element and will neither increase nor reduce the amount of development allowed pursuant to local land use controls. The EIR/EIS also states that a goal of the MSHCP is to enhance and maintain biological diversity, while accommodating projected future economic growth. Another goal is to improve the economic development climate by providing an efficient, streamlined regulatory process.

The MSHCP includes implementation measures regarding "Covered Activities within the Criteria Area and Allowable Uses within the MSHCP" as per Section 7.0 of the MSHCP. The Plan also includes guidelines for development within the Reserve. Section 7 of the MSHCP contains criteria for the implementation and maintenance of covered public and private activities within the Criteria Area, including roads, flood control activities, other infrastructure, single-family homes, and agricultural lands. The Plan also addresses compatible uses within the MSHCP Reserve related to management, monitoring and scientific research.

Conditionally compatible uses in the Conservation Area are detailed in Section 7.4.2 of the MSHCP. Generally speaking, covered public access activities consist of trails, facilities, and passive recreational activities. Section 7.3.6 of the MSHCP identifies allowed recreational uses in State Park facilities. These uses include the Laborde Canyon Off-Highway Vehicle Park/State Vehicle Recreation Area and recreational activities within campgrounds and day use areas of State Park facilities. Each State Park facility (Lake Perris State Recreation Area, Chino Hills State Park, Mount San Jacinto State Park and State Wilderness, San Timoteo Park and Anza-Borrego State Park) has different recreational uses, but these uses may include: hiking, horseback riding, bicycling, camping, picnicking, swimming, boating and hunting. It should be noted that the type of use allowed is dependent, in part, upon the individual reserve management plans and the biological resources requiring protection.

Incompatible activities within the Criteria Area are identified in the guidelines for the siting and design of trails and facilities (Section 7.4.2), the guidelines for operation and maintenance (Section 7.2.4) and construction guidelines (Section 7.5.3). The Implementing Agreement also contains a process by which the Wildlife Agencies can consult with the Parties to resolve a dispute over whether an activity is covered or not.

Therefore, the Department finds that MSHCP was developed consistent with the Planning Agreement regarding identifying compatible and incompatible activities.

Finding 4.1.7

CDFG finds that the Plan contains specific conservation measures that meet the biological needs of Covered Species and that are based upon the best available scientific information regarding the status of Covered Species and the impacts of permitted activities on those species. (Section 2820(a)(6) and NCCP General Process Guidelines III(B)(1)(a) and III(B)(2)(b, d and e))

The MSHCP was designed with ongoing input from the Wildlife Agencies, the University of California Riverside, Los Angeles County Museum, Coachella Valley Association of Governments, Camp Pendleton Amphibians and Reptiles Survey, Zoological Society of San Diego, Loma Linda University, Dr. Robert Fisher and the University of San Diego, and data from numerous biological consulting companies, include Dudek. Other data sources include personal communications with local biologists, biologists with the Wildlife Agencies, and reviewing Environmental Impact Reports and Biological Technical Reports for development projects within the Plan Area. Data on species were derived from the University of California, Riverside species occurrence database, location data from voucher specimens in museums and public-trust institutions, information from peer-reviewed journal articles, field notes at museums, technical reports by government agencies, biological sections of environmental documents, and field notes of local biologists. Additional data on plants was gathered from herbarium specimens at the San Diego Natural History Museum, Rancho Santa Ana Botanical Gardens herbarium, and UCR herbarium. Other base layer data maps include soils maps from the U.S. Department of Agriculture, Soils Conservation Service and State Soil Geographic database, USGS topographic maps, USGS Digital Orthophoto Quarter Quadrangles from USFWS, and digital aerial photographs from Eagle Aerial flown in 2001.

The conservation program consisting of Core Areas and Linkages is based upon an underlying vegetation map and areas identified by Wildlife Agencies' biologists and input from independent biologists who are experts in their fields. Vegetation layer data is based upon the Holland classification and was derived primarily from the PSBS and KTU +A 1995 vegetation map, as well as input from biological survey reports, Weislander vegetation maps, satellite imagery, and the Dangermond/RECON data set. The reserve system also incorporates the best available species information from sources which include: the California Natural Diversity Data Base ("CNDDB"), the University of California Riverside Species Occurrence Database, USFWS point data information, County of Riverside information, data from environmental documents and field notes of local naturalists. As of 2001, the database contained over 12,800 records. Section 3.0 of the MSHCP describes the data collection and scientific methodology used in the formulation of the MSHCP.

Section 3.0 of the MSHCP also includes a discussion of the underlying general principles of conservation biology used in the analysis and evolution of the MSHCP reserve design, including a discussion of edge effect, wildlife movement and connectedness through landscape Linkages and

movement Linkages. The information is supported by references to specific scientific papers by acknowledged experts in the field of conservation biology.

The MSHCP vegetation map, coastal sage scrub quality model and edge analysis were combined and used to identify the presence and locations of existing large habitat blocks for potential inclusion within conserved areas. These data and analyses were also used to evaluate existing and potential locations for linkages. Data were analyzed by plotting hard copy maps of data layers and using acetate overlays to assess combined layers and this method was also utilized digitally with ArcView.

Specific data will continue to be accumulated through the short- and long-term monitoring program. The initial inventory and assessment phase of the monitoring program includes completing the base GIS cover of vegetation community/wildlife habitat distribution throughout the Plan Area by Year 2, conducting baseline inventory field surveys on plant and animal species distribution and abundance, monitoring of Covered Species, identification of key stressors, developing a monitoring tracking system for managing surveys, identification of species as potential indicators of system condition, and developing long-term monitoring strategies for species/stressors (protocols, schedules, time intervals for monitoring, multi-species approaches). Specific long-term monitoring sampling locations, methods, and survey intensity will be fully developed after analyses of the habitat and species inventories.

Therefore, the Department finds that MSHCP was developed consistent with the Planning Agreement in that specific Conservation measures are based upon the best available scientific information.

Finding 4.1.8

CDFG finds that the Plan contains a monitoring program. (Section 2820(a)(7) and NCCP General Process Guidelines III(B)(2)(f and g))

The MSHCP contains a comprehensive management and monitoring program. The components of the program, as stated in Section 5.0, are: establishment of five (5) reserve management units; a comprehensive biological monitoring program (Section 5.3), and adaptive strategies based upon the results of the long-term monitoring.

In order to facilitate monitoring, the habitats have been divided into seven (7) categories: coastal sage scrub/chaparral/desert scrub; grassland (and open fields including agriculture); riparian/aquatic habitats; wetland/marsh/lake; vernal pool and alkali playa; high elevation species (Forest Service Lands); and, species which require different sampling strategies.

As stated in the MSHCP, CDFG is responsible for developing the details (protocols, sample design, etc.) of the long-term monitoring strategy and for implementing the Monitoring Program for at least the first eight (8) years of the Permit. However the necessary adequate funding for the program is provided for by the Permittees. The CDFG Resource Assessment Program entered into an agreement with the Center for Conservation Biology at UC Riverside to "...develop additional inventory and monitoring strategies/protocols and to initiate implementation of some

aspects of the Biological Monitoring Program...” The biological monitoring program is based upon species and vegetation community/habitat objectives, a commitment to use an adaptive approach to monitoring, and an evolving monitoring program to ensure that an appropriate level of monitoring will occur. Further the strategies involved in the monitoring program include an initial inventory and assessment phase and an adaptive work plan. The initial phase of the monitoring program consists of assembling existing data, mapping vegetation communities/wildlife habitat and inventorying Covered Species. Another strategy is to design survey and monitoring strategies to maximize the number of species and attributes that can be measured under a set of protocols. Sampling protocols will be designed to provide feedback to the objectives of the MSHCP and ensure the long-term survival of Covered Species.

Management and adaptive management strategies are dependent upon the underlying data. The inventory and monitoring aspects of the program range from simple short-term efforts like field verifying existing species occurrences to long-term monitoring of population status and trends. The framework for the Biological Monitoring Program (page 5-51 of Volume I (Part 1 of 2) of the MSHCP) consists of an initial inventory and assessment phase and the adaptive work plan. The monitoring program has essentially two phases, an initial phase of species, community and habitat inventory and assessment for the development of monitoring strategies and testing of methodologies and protocols, and a second phase of implementation of the long-term Biological Monitoring Program. The specifics of the inventory assessment phase are found on page 5-54 of Section 5. The specifics of the Long-Term Monitoring Phase are found on page 5-55 of Section 5. Once the inventory assessment phase is complete, the specific long-term monitoring sampling locations, methods, and survey intensity will be fully developed after analyses of the habitat and species inventories. Table 5-8 is a summary of the survey requirements for Covered Species according to the species objectives.

The focus of the initial biological inventory and monitoring will occur on MSHCP Public/Quasi-Public lands and will concentrate on Covered Species and vegetation communities which are considered the most underrepresented or most at risk. Sampling stations for long-term monitoring will be established in Public/Quasi-Public lands first. Inventory and assessment of lands incorporated into the MSHCP Conservation Area will occur within two years of conveyance of such lands.

Long-term monitoring will occur at least every 8 years for Covered Species in Table 5-8 and to update the vegetation communities and wildlife habitats GIS layer and map. A key element of the long-term monitoring program is the comprehensive repeat inventory of vegetation communities and wildlife habitats which occurs at 8-year intervals, a time period which can be used to detect broad-scale change. The program will also evaluate data for the MSHCP Adaptive Management Strategy, and evaluate potential modification of monitoring strategies.

Therefore, the Department finds that MSHCP was developed consistent with the Planning Agreement requiring a monitoring program.

Finding 4.1.9

CDFG finds that the Plan contains an adaptive management program. (Section 2820(a)(8) and NCCP General Process Guidelines III(B)(2)(f and g))

The Plan integrates adaptive management strategies that are periodically evaluated and based upon the monitoring program. The Permittees have committed to a comprehensive, funded, adaptive management program to ensure the needs of species and associated habitats are met. The definition of adaptive management taken from the California NCCP Act of 2002 and utilized by the Plan is: "To use the results of new information gathered through the monitoring program of the Plan and from other sources to adjust management strategies and practices to assist in providing for the Conservation of Covered Species."

The adaptive management program relies on information gathered from three basic Plan components: the management plan, monitoring program and species objectives. An in-depth discussion of the monitoring program is included in Finding 4.1.8 of this document. The monitoring program provides for establishing a baseline inventory, short-term monitoring, and long-term monitoring. The long-term monitoring plan will provide information on fluctuation from the baseline and allow the Reserve Managers to assess the nature of long-term trends and whether intervention is required or whether the fluctuations are a reflection of normal demographic patterns. The management plan provides for measures to protect and maintain habitats and species.

A key element of the long-term monitoring program is the comprehensive repeat inventory of vegetation communities and wildlife habitats which occurs at 8-year intervals, a time period which can be used to detect broad-scale change, and which will be the basis for adaptive management.

The MSHCP Cooperative Organizational Structure will have a management structure to coordinate with the Wildlife Agencies and manage the reserve. Among these components are the Reserve Management Oversight Committee, the Reserve Managers Committee, a Monitoring Program Administrator and Independent Science Advisors. The Reserve Managers Committee of the RCA will be responsible for assessing the health of the system via the monitoring program and determining whether changes that are detected require some form of adaptive management and what that management measure will be.

Therefore, the Department finds that MSHCP was developed consistent with the Planning Agreement that requires an adaptive management program.

Finding 4.1.10

CDFG finds that the Plan includes a timeframe and process by which reserves or other conservation measures are to be implemented, including the obligations of landowners, signatories and consequences of the failure to acquire lands in a timely manner. (Section 2820(a)(9) and NCCP General Process Guidelines III(B)(2)(e and i))

Section 6 of Volume II (Part 2 of 2) of the MSHCP is the Implementation Structure of the MSHCP. Section 6.7 discusses the Reserve Assembly Accounting. The MSHCP is a 75-year plan. The Rough Step Analysis is included in Section 6.7. This analysis provides a method by which the RCA can monitor the gains and losses of key habitats within a designated analysis unit, in order to ensure that the habitat acreage goals of a particular unit can be met and are not compromised. In addition, annual reports shall be available to the public showing habitat gains and losses associated with reserve assemblage. The purpose of this report is to ensure that overall habitat developed and habitat protected are in rough proportion.

Section 8.0 of Volume I (Part 2 of 2) of the MSHCP details the funding mechanisms for the assemblage of the MSHCP. The funding analysis projects that the MSHCP Conservation Area will be primarily assembled over the first 25 years. The management and monitoring programs will be funded in perpetuity by an endowment that will be established prior to expiration of the Permit. The funding program outlines the responsibilities of the various signatories, including local jurisdictions, Caltrans, and State Parks. The detailed funding analysis and timeline is found in Appendix B of Volume I (Part 2 of 2) of the MSHCP.

Volume III of the MSHCP is the MSHCP Implementing Agreement. Section 7.0 of the IA defines the roles and responsibilities of the various signatories, the process by which lands will be acquired for the reserve, and the reserve assembly accounting process. Section 10.0 of the IA outlines the reporting requirements, including the annual report detailing reserve assembly and specifies the details to be included in the report. Annual reporting to the Wildlife Agencies and the public provides a formal opportunity to assess progress of the Plan and address potential problems. Section 11.0 of the IA details the MSHCP Implementation Structure, including the administrative structure. Section 13.0 outlines the Permittee's take authorization and obligations.

The consequences of the failure to assemble the MSHCP are contained in Section 21.0 (Termination of Permits) and Section 23.0 (Remedies and Enforcement). Specifically, Section 23.5 states that the Wildlife Agencies shall have the right to revoke or suspend all or portions of the permits and that such action can be triggered by the following: 1) failure of a Permittee to implement the Implementation Mechanisms adopted by that agency; 2) approval of a development or project that significantly compromises the viability of the MSHCP Conservation Area; 3) approval of a Criteria Refinement that compromises the integrity of the Conservation Area; 4) failure to comply with the rough step requirements; or 5) withdrawal of a Permittee.

Therefore, the Department finds that MSHCP was developed consistent with the Planning Agreement and includes a timeframe and process for implementing the reserve system.

Finding 4.1.11

CDFG finds that the Plan contains provisions that ensure adequate funding to carry out the conservation actions identified in the Plan. (Section 2820(a)(10) and NCCP General Process Guidelines III(B)(2)(h))

Section 8.0 of Volume I (Part 2 of 2) of the MSHCP details the funding mechanisms for the assemblage of the MSHCP Conservation Area. The funding analysis projects that the MSHCP

Conservation Area will be assembled over the first 25 years. The management and monitoring programs will be funded in perpetuity by an endowment that will be established prior to expiration of the Permit. The funding program outlines the responsibilities of the various signatories, including local jurisdictions, state government and the federal government. The detailed funding analysis and timeline is found in Appendix B of Volume I (Part 2 of 2) of the MSHCP.

The finance plan covers five components of the MSHCP: land acquisition costs, management costs, monitoring costs, adaptive management costs and administrative costs. Table 8-2 details the total local program costs for 75 years. Over 75 years, the total MSHCP cost is estimated at \$1,539,400,000. The total cost of acquisition of lands over 75 years is estimated at \$733,600,000. Table 8-2 on page 8-3 of Section 8 of the MSHCP details the costs at 25 and 75 year intervals. Other components requiring funding include the biological monitoring costs at \$1,600,000, program administration costs at \$1,200,000 for the first 25 years and approximately \$500,000 per year for the remaining life of the Plan, and adaptive management costs which will be approximately \$100 million at the end of the first 25 years. Implicit in the land acquisition process ("HANS") is the ability of the local jurisdictions to negotiate with landowners on payment plans or the incentive program as stated above to stagger the cash outflow and help prevent a short-term cash flow drain.

Land acquisition costs are expected to be offset by the incentives program, which features development review and density bonus/clustering. The local MSHCP funding sources include local development mitigation fees, density bonus fees, regional infrastructure project contributions, landfill tipping fees and other potential new revenue sources, as detailed in Section 8.5.1. Transportation infrastructure is expected to provide \$371 million over the next 25 years. As part of the County of Riverside's Measure A, approximately \$121 million will be allocated to the MSHCP via a ½ cent sales tax increase. Other possible sources of mitigation include regional utility projects, local public capital construction projects, and regional flood control projects. A breakdown of funding sources is provided in Table 8-5 on page 8-20 of Section 8 of the MSHCP. In addition, the state will be contributing to the Additional Reserve Lands. In the first eight years of the Permit, Caltrans will acquire two reserves: a 2,000 acre-reserve in the eastern portion of the Criteria Area, and a 1,000 acre-reserve in the western portion of the Criteria Area. State Parks will provide 3,000 acres of reserve land in the Badlands. State and federal agencies are expected to provide for the acquisition of 56,000 acres for the MSHCP (see Table 8-1 on page 8-2 of Section 8.0 of the MSHCP). The MSHCP states that 56,000 acres will be conserved through direct acquisition by local agencies and 41,000 acres will be acquired for Conservation through development review.

Section 8.6 requires that the Permittees and Wildlife Agencies annually evaluate the performance of the funding mechanisms to assess their adequacy and make any adjustments necessary. This evaluation process is designed as a contingency measure to monitor the flow of funds and assess unexpected developments, such as land acquisition costs rising faster than the cash flow, monitoring costs increasing faster than revenues, adaptive management costs rising faster than revenue, and revenue collections and land acquisitions do not keep pace with land development.

In addition, the RCA has the ability to structure a debt financing plan with the federal or state government (Section 8.7).

In order to ensure that management and monitoring can occur, a portion of the annual revenues generated through the MSHCP will be allotted for these purposes. Projected costs for management and monitoring are \$780.8 million. Reserve management costs include: ranger patrol, trash removal, access control, managing public access and other activities. Costs for biological monitoring are estimated at \$1.6 to \$2.4 million per year (page 8-5 of Section 8.0 of the MSHCP). The MSHCP proposes that at the end of the 25-year acquisition period, an endowment fund of \$70 million will be established which would provide an annual income of \$3.5 million per year for adaptive management activities. It is expected that as acquisition costs decrease, management costs will increase. Section 8.8 details two different scenarios for the financing of long-term management. The first approach is that the MSHCP would fund the annual costs for management, monitoring, adaptive management, administration and the cost of creating an endowment of \$100 million. In the second approach, a long-term source of funding for all management costs would be put in place before the acquisition period is complete. The Plan states that although the life of the Plan is for 75 years, Permittees will have the permanent responsibility for managing Conservation lands.

Therefore, the Department finds that MSHCP was developed consistent with the Planning Agreement requirement to ensure adequate funding to carry out Conservation activities.

4.2 NCCPA of 1991 as Amended and NCCP General Process Guidelines

Because this Plan is grandfathered under 2830(e), the Plan must comply with certain laws and guidelines which existed prior to NCCPA of 2002. The Department must make findings that the Plan complies with certain NCCP General Process Guidelines, and certain provisions in the NCCPA as they existed on December 31, 2001, as described below.

Finding 4.2.1 CDFG finds that the Plan considers the impact on the use of existing agricultural lands and on conversion of agricultural land to non-agricultural purposes. (NCCP General Process Guidelines III(B)(1)(b)).

The MSHCP distinguishes between existing agricultural lands and lands which are not now agricultural but may be converted to that use. The Plan requires that a database be compiled of lands that are now utilized for agricultural uses and these lands are exempt from the MSHCP mitigation requirements until converted to other uses. The Plan also discusses and provides for the expansion of existing agricultural uses and new agricultural uses. Section 6.2 of the MSHCP Implementation Structure and Sections 11.3 and 17.2 of the IA address agriculture. Section 11.3 of the IA includes a definition of "Agricultural Operations". Take authorization shall apply to lands within the MSHCP which have been actively used for ongoing agriculture for at least one of the last five (5) years preceding the effective date of this Agreement. Existing agriculture is also exempt from the payment of the Local Development Mitigation Fee or other mitigation measures. Conversion of grazing or pastureland to a tilled crop is not considered exempt under the IA. This

is an important distinction because grazed lands are less intensively altered than tilled lands and native habitat will revegetate on grazed lands. To be considered existing agricultural lands, the property owner must register his/her land with the Existing Agricultural Operations Database and shall be issued a Certificate of Inclusion. The IA also includes a process for the addition of lands (Section 11.3.4) and expansion of existing agricultural lands (Section 11.3.5). The Take Authorization can be extended to a maximum of 10,000 acres of new agricultural lands within the Criteria Area and which could be expanded pursuant to Section 11.3.7 of the IA.

The Plan requires that an expansion of an agricultural use that requires a discretionary authorization shall receive take provided certain requirements are met regarding application of the MSHCP mitigation requirements. The conversion of agricultural land to non-agricultural uses would require application of MSHCP procedures (Section 6.2 of the MSHCP Implementation Structure and Sections 11.3 and 17.2 of the IA).

Therefore, the Department finds that MSHCP was developed consistent with the Planning Agreement regarding consideration of the impact of agriculture and conversion of agriculture to non-agricultural uses.

Finding 4.2.2 CDFG finds that the Plan considers methods by which the Department's responsibilities under Chapter 6 of Division 2 of the Fish and Game Code, Section 1600 et. seq. can be integrated with NCCPs. (NCCP General Process Guidelines III(B)(1)(c))

Page 6-26 of Volume I (Part 1 of 2) of the MSHCP, states that the CDFG will work closely with the Army Corps of Engineers, USFWS, and local jurisdictions to ensure that Lake and Streambed Alteration Agreements are consistent with the mitigation required for Covered Species. The Department is working with the Corps and the County of Riverside to develop a master Lake and Streambed Alteration Agreement for the MSHCP. Until such time that a Lake and Streambed Alteration Agreement is approved, the existing regulatory framework is in effect.

The provision of a Special Area Management Plan ("SAMP") is found on page 79 of the IA and page 2-7 of Volume 1 (Part 1 of 2) of the MSHCP. The IA states that the County and Riverside County Transportation Commission in collaboration with the Army Corps of Engineers ("ACOE") intend to complete a Special Area Management Plan for the Santa Margarita and San Jacinto Watersheds. The MSHCP states that as part of the SAMP, the ACOE is developing a functional assessment and programmatic wetlands delineation for the two watersheds.

Therefore, the Department finds that MSHCP was developed consistent with the Planning Agreement requirement that the Plan consider methods of integrating the Department's responsibilities under Section 1600 of the Fish and Game Code with the Plan.

Finding 4.2.3 CDFG finds that the Planning Agreement contains a provision for independent science advisors. (former Section 2811)

On October 18, 1999 the County Board of Supervisors signed a contract with the University of California, Riverside for the purpose of providing formal review of the science used in documents pertaining to the Western Riverside MSHCP. The contract stipulates that the Scientific Review Panel ("SRP") would provide written comments on three documents: 1) a document outlining the approach taken and available data used to develop the MSHCP; 2) the biology used in preparing the MSHCP; and, 3) the biology utilized in the EIR. The SRP provided written comments on substantive documents submitted to it for review.

The SRP was appointed by the Center for Conservation Biology at the University of California Riverside in cooperation with the County of Riverside. The members of the SRP panel are: Dr. Edith Allen, Cooperative Extension, UCR; Dr. Steve Boyd, Curator of the Rancho Santa Ana Botanic Herbarium; Dr. James Diffendorfer, Department of Biology, San Diego State University; Dr. Janet Franklin, Department of Geography, San Diego State University; Dr. James Malcolm, Department of Biology, Redlands University; Dr. Richard Minnich, Department of Earth Sciences, University of California; Dr. Leonard Nunney, Department of Biology, University of California; Dr. Richard Redak, Department of Entomology, University of California; Dr. Mark Reynolds, Director of Field Stations, San Diego State University; and, Dr. David Reznick, Department of Biology, University of California. Later members of the SRP were Dr. Season Snyder, Center for Conservation Biology, and Dr. Thomas A. Scott, Cooperative Extension, University of California.

In Section 6.0 of the MSHCP, there is a discussion of the role of Independent Science Advisors and their duties and responsibilities. The Plan states that the Independent Science Advisors may be independent associated with educational institutions or public agencies, members of a non-profit organization or employees of biological science firms. Section 6.6.7 of the MSHCP states that the RCA Executive Director shall appoint independent science advisors who are qualified biologists and conservation experts, with expertise in the Covered Species and their habitats. The duties and responsibilities of the independent science advisors are detailed in Section 6.6.7(B) of the MSHCP.

5.0 OTHER FINDINGS

5.1 Fully Protected and Specially Protected Species

Finding 5.1.1

CDFG finds that the MSHCP and related Covered Activities authorized in this approval will not result in take of fully protected and specially protected species.

Section 15.5 of the Implementing Agreement (Volume III of the MSHCP) discusses fully protected species. It states that fully protected species are included in the list of Covered Species but that take of these species are not authorized by the NCCP Permit and is prohibited by the CDFG Code. There are four (4) fully protected species addressed in the MSHCP: the golden eagle, white-tailed kite, peregrine falcon and bald eagle. There is also one (1) specially protected species as identified in Fish and Game Code Section 4800: mountain lion. The IA states that

CDFG concurs that the mitigation measures in the Plan are sufficient to avoid take of fully protected and specially protected species from Covered Activities. The IA also states that if these measures prove to be insufficient, it is the responsibility of CDFG to notify the RCA and propose additional measures.

Golden eagle nests in rugged, mountainous country and are susceptible to disturbance. In addition to the nest protection policy, the MSHCP proposes several measures to avoid take of this species. The Species Account (page B-216, Volume II-B and page 9-66 of the MSHCP) requires Conservation of all known nest sites (7), Conservation of undeveloped habitat within a one-mile radius around each nest site, and maintain continued use and successful reproduction at 75 percent of the known nesting localities at eight (8) year intervals. The Plan also states (page B-209) that management actions will be incorporated into the Conservation strategy to ensure that activities near nesting sites are compatible both in location and time of year.

Bald eagle is not currently known to nest within the Plan Area. The MSHCP proposes several measures to avoid take of this species. The Plan calls for the Conservation of open water habitat with a shoreline buffer of 100 meters at lakes and reservoirs and the riparian habitat within the Prado Basin and Santa Ana River and Conservation of any future identified nesting sites. The General Management Measures on page 9-57 of the MSHCP require that Reserve Managers enhance and/or create additional nesting areas in specified reserves, manage future nesting localities, monitor nests over time, and maintain the hydrologic processes in the Santa Ana River.

Peregrine falcon is a fall transient with occasional wintering and rare spring transient movement. It has occurred within every major water body and is a regular visitor to the Prado Basin. A known nest is located on the County Building in Riverside. The Plan objective for this species is to establish 20-25 pairs. In addition to the nest protection policy, the MSHCP proposes several measures to avoid take of this species. The General Management Measures on page 9-77 of the MSHCP require that Reserve Managers manage the known and future locations of this species with regard to pesticide use, utilize a 100-meter buffer for protection, and monitor the water bodies identified in the Species Conservation Objectives for this species.

White-tailed kite is found in several Core Areas, including the Prado Basin/Santa Ana River, Lake Mathews-Estelle Mountain, Temescal Wash, Wasson Canyon, Murrieta Creek, Santa Rosa Plateau, Temecula Creek, Vail Lake, Wilson Valley, Lake Skinner and Lake Perris/Mystic Lake. Concentrations of this species are found along San Timoteo Creek and in French Valley. Ten of the eleven core breeding areas will be conserved within the Criteria Area or Public/Quasi-Public lands. The MSHCP proposes several measures to avoid take of this species. As noted in the Species Account (page B-591 of the MSHCP), management measures for this species include providing a 250-meter radius of undeveloped habitat around roosting sites, and the continued use of and successful reproduction at 75 percent of the Core Breeding Areas at three year intervals. In addition, Reserve Managers will monitor the species with regard to threats identified in the Species Accounts on page 9-90 of the MSHCP.

Mountain Lion requires large expanses of undisturbed brushy and rocky habitats and provision for dispersal and movement. A key factor for management of this species is wildlife crossings of major roadways to facilitate dispersal. Mountain lion is found in the Agua Tibia Mountains, Desert Transition, San Bernardino Mountains, San Jacinto Foothills, San Jacinto Mountains and Santa Ana Mountains. The Conservation objectives for this species involve conserving large blocks of habitat in the areas indicated above and the Conservation of dispersal and migration routes and critical crossings of highways (see Objectives 2 and 3 on page M-105 of the Species Accounts of the MSHCP). Threats to this species include habitat fragmentation, road kills, shootings, animal control measures and loss of the prey base. The MSHCP attempts to minimize take of this species by providing for Conservation of large core habitat areas and maintaining or improving the functionality of dispersal routes. Addressing wildlife crossings will ameliorate loss of animals via road kill.

One measure which specifically benefits and protects fully protected species is the MSHCP policy that known or newly observed active raptor nests shall be conserved within the Conservation Area (page 5-6 of Section 5.2.1(5) of the MSHCP). In addition, as per Table 5-8 of the Management and Monitoring Plan, baseline surveys will be conducted for the fully protected species within the first five (5) years and ongoing monitoring will occur at eight (8) year intervals. Additional measures to avoid impacts to fully protected species will be assessed and implemented as part of the monitoring and management program.

6.0 APPROVAL OF THE PLAN/NCCP TAKE PERMIT

Based on the foregoing findings, CDFG concludes that the Plan meets all necessary requirements for approval as an NCCP. CDFG hereby approves the Plan for implementation as an NCCP and authorizes the Permittees to take the species identified below in Section 6.2 (subject to the limitations in this Permit) incidental to the activities described below in Section 6.1. This take authorization is specifically conditioned on the Permittees' compliance with requirements of the Western Riverside Multiple Species Habitat Conservation Plan and the Implementing Agreement.

Terms and Conditions

Prior to each Status Meeting with the Wildlife Agencies pursuant to Section 6.6.2.F.2 of the MSHCP, the RCA shall provide to the Wildlife Agencies a copy of the Permittee's final decision document for each development application in the Criteria Area submitted for the joint project/application review process that have been received since the last Status Meeting or Permit issuance, whichever is later. In addition, the RCA shall provide to the Wildlife Agencies a copy of the final decision documents that have been received since the last Status Meeting or Permit issuance, whichever is later, confirming that individual planned roadway projects within the Criteria Area, which are described in Section 7.3.5 of the Plan and depicted in Figure 7-1 of the Plan, are consistent with the Criteria, appropriate guidelines (MSHCP Section 7.5), and specific design features (MSHCP Table 7-4).

Permittees shall require, in accordance with standard practices, biologist send copies of all habitat assessments and copies of all focused survey results for all Covered Species that are identified under Section 6.1.3, Section 6.3.2 and the Errata Table 6-1, to the MPA.

6.1 Covered Activities

This Permit covers take of Covered Species Adequately Conserved resulting from Covered Activities that are subject to and covered by the Western Riverside Multiple Species Habitat Conservation Plan and the Implementing Agreement. Covered Activities consist of the activities defined in the IA and listed in Section 7.0 of Volume I (Part 2 of 2) of the MSHCP. There are three categories of Covered Activities: 1) activities outside the Criteria Area and Public/Quasi-Public Lands (Section 7.1); 2) activities occurring within the existing Public/Quasi-Public lands (Section 7.2); and, 3) covered activities within the Criteria Area. Activities in category 1 are exempt from criteria subject to consistency with the MSHCP policies that apply outside the Criteria Area (Riparian and Riverine Areas and Vernal Pools, Narrow Endemic Plant Species, Additional Survey Needs and Procedures, and Funding/Fee Issues). Section 6.0 of the MSHCP discloses the mitigation responsibilities and commitment to Plan implementation of the County and Cities, Regional Conservation Authority, County Flood Control, County Parks, County Waste, Riverside County Transportation Commission and Participating Special Entities.

Covered activities within the Public/Quasi-Public lands include: existing public roads (Table 7-1), maintenance activities on public roads (Section 7.0), new circulation element roads, privately maintained roads, specified maintenance activities (page 7-8), future facilities subject to equivalency findings (Section 7.2.4), maintenance of other existing facilities by permittees (Section 7.2.5), existing agricultural uses (Section 7.2.6) and CETAP roads (Sections 7.2.2 and 7.2.3). The MSHCP includes measures to ensure that additional impacts from facilities are mitigated or avoided. Future infrastructure facilities within Public/Quasi-Public Lands would be permitted subject to a finding of equivalent Conservation through individual project mitigation (Section 7.2.4 of the MSHCP). Guidelines for the equivalency analysis are found in Section 7.2.4 of the MSHCP. Maintenance of existing facilities in Public/Quasi-Public lands are permitted so long as the maintenance is within the existing disturbed area and there are no changes in the operating characteristics of the facility.

Covered activities within the Criteria Area are found in Section 7.3.2-7.3.5 of Section 7.0 of the MSHCP. These covered activities include: single-family homes on existing parcels (7.3.2); agricultural lands (7.3.3); existing roads (7.3.4); road maintenance activities (7.3.4); future, planned roads (7.3.5); circulation element roadways (7.3.5); improvements to SR 79 (7.3.5); improvements to the Interstate 215, Interstate 15, Interstate 10, State Route 60, State Route 91 and CETAP corridors (7.3.5); activities on State Parks (7.3.6); flood control facilities (7.3.7); and, future infrastructure improvements, such as water/wastewater, electric and natural gas (7.3.9). The MSHCP includes an expedited review process for single-family homes in the Criteria Area (Section 7.3.2). Grading permit applications will be reviewed against the MSHCP Conservation Criteria to determine the most appropriate location for a residence and access roads. The review may include a habitat assessment. The MSHCP also includes a requirement for an

annual report on single-family home activity to assess whether this category of development is proceeding consistent with the objectives of the Plan.

Page 7-48 of the MSHCP describes the process for determining whether the future Orange County Corridor project is consistent with the MSHCP, including an analysis of alignment and design features, consideration of species objectives (Section 9.0), siting and design criteria (Section 7.5.3), guidelines for wildlife movement design (Section 7.5.2), and construction guidelines (Section 7.5.3). General guidelines for an Orange County Corridor are listed on page 7-49 of the MSHCP, including consistency considerations and alternatives.

The Orange County-Riverside County Corridor, like the Cajalco Road Improvements, State Route 79 Improvements, and San Jacinto River Project, may be a Covered Activity subject to the identified process in the MSHCP for each project and the Minor Amendment Procedure described in Section 20.4.2 of the IA.

Allowable activities within the MSHCP Conservation Area include compatible uses and conditionally compatible uses. Compatible uses include: conservation activities; reserve management, monitoring and scientific research; emergency, safety and police services; and, emergency repairs. Conditionally compatible uses include public access and recreation and guidelines for the siting, design, operation, and maintenance of trails and facilities (Section 7.4.2).

6.2 Covered Species

Table 9-2 of the Plan shows the 146 Covered Species with nine columns of information: species name, group designation, rationale for group designation, species objectives, conservation analysis summary, take estimates, survey requirements, monitoring, and management activities. Of the 146 Covered Species, 112 are considered to be Adequately Conserved and are currently authorized for take. Four (4) Covered Species are fully protected and one (1) is specially protected and not authorized for take (see 6.3).

Another 29 Covered Species are not authorized for take until certain Conservation requirements are met at which time they will be considered to be Covered Species Adequately Conserved. Section 2.1.4 of Volume I (Part 1 of 2) and Table 9-3 list the 29 species and the objective criteria which must be met for them to be considered adequately conserved.

For 17 of the 29 species, particular species-specific Conservation objectives, which are identified in Table 9-3 of the Plan, must be satisfied to shift those particular species to the list of Covered Species Adequately Conserved. When species-specific objectives contained in Section 9.2 and Volume II, Section B of the Plan are met for individual species described in these sections, written findings that the objectives have been met will be made by the RCA and will be transmitted to the RMOC and the Monitoring Program Administrator. Information supplied to the RMOC and MPA will include available data regarding the presence, distribution and status of the applicable species within the MSHCP Conservation Area and data supporting the conclusion that the species objectives have been met. In particular, data assembled as part of the MSHCP monitoring and

Management Plan will be made available to the RMOC and the MPA. The RMOC and MPA will seek input, as appropriate, from the Independent Science Advisors, the Wildlife Agencies, management and monitoring personnel, and outside experts. The RMOC shall then notify the Wildlife Agencies that the species-specific objectives for that particular species has been met and the Wildlife Agencies will have sixty (60) days to review the data and inform the RCA if they do not agree with the conclusion of the RCA.

For the remaining 12 species, a Memorandum of Understanding must be executed with the Forest Service that addresses management for these species on Forest Service land in order to shift these species to the list of Covered Species Adequately Conserved (Table 9-3 of the MSHCP).

The MSHCP also has a narrow endemic plant policy. Surveys are required for the following species: Yucaipa onion, spreading navarretia, Johnston's rock-cress, Munz's mariposa lily, many-stemmed dudleya, San Jacinto Mountains bedstraw, Brand's phacelia, San Miguel savory, Hammitt's clay-cress, Wright's trichocoronis, California Orcutt grass, slender-horned spineflower, Munz's onion, and San Diego ambrosia. The narrow endemic plant policies are found in Section 6.1.3 of Volume I of the MSHCP. The MSHCP includes a map (Narrow Endemic Plant Species Survey Area, Figure 6-1 of Section 6.0 of the MSHCP) showing the areas that require surveys for the narrow endemic plants. The survey areas are located inside of and outside of the Criteria Area. The Plan has avoidance and minimization measures for narrow endemic plants, including a provision that 90% of the area where an endemic plant is found shall be avoided until the species-specific objectives are met. The process for conserving narrow endemic plants also includes the provision of Equivalency Findings and, if Conservation is deemed infeasible, a Determination of a Biologically Equivalent or Superior Preservation shall be made and reports submitted to the Wildlife Agencies (Section 6.11 of the MSHCP).

Furthermore, additional survey requirements are required for the following species: arroyo toad, California red-legged frog, mountain yellow-legged frog, burrowing owl, Aguanga kangaroo rat, Los Angeles pocket mouse, San Bernardino kangaroo rat, Coulter's goldfields, Davidson's saltscale, heart-leaved pitcher sage, little mousetail, mud nama, Nevin's barberry, Parish's brittlescale, prostrate navarretia, round-leaved filaree, San Jacinto Valley crownscale, smooth tarplant, thread-leaved brodiaea, and Vail Lake ceanothus (pages 6-63 and 6-65 of Section 6.0 of the MSHCP). Figure 6-2 of MSHCP shows the survey areas for plants. Figure 6-3 shows the survey area for amphibians. Figure 6-4 shows the survey area for burrowing owl. Figure 6-5 shows the survey area for mammals. The Plan states that there is not sufficient information on these species to make the findings to support FESA issuance criteria. As with Narrow Endemic Plants, the Plan requires Conservation of 90% of an area where surveys yield positive results until such time as the Conservation goals for a particular species are met. When the Conservation goals are met, the RCA will transmit findings to the Reserve Managers Oversight Committee and the Monitoring Program Administrator. Policies and survey requirements regarding these species are found in Section 6.3.2.

6.2.1 List of 146 Covered Species

Name

Amphibians

Arroyo toad, *Bufo californicus*
California red-legged frog, *Rana aurora draytonii*
Coast range newt, *Taricha tarosa tarosa*
Mountain yellow-legged frog, *Rana mucosa*
Western spadefoot, *Scaphiopus hammondi*

Birds

American bittern, *Botaurus lentiginosus*
Bald eagle, *Haliaeetus leucocephalus*
Bell's sage sparrow, *Amphispiza belli belli*
Black swift (breeding), *Cypseloides niger*
Black-crowned night heron, *Nycticorax nycticorax*
Burrowing owl, *Athene cunicularia hypugaea*
Cactus wren, *Campylorhynchus brunneicapillus*
California horned lark, *Eremophila alpestris actia*
California spotted owl, *Strix occidentalis occidentalis*
Coastal California gnatcatcher, *Polioptila californica californica*
Cooper's hawk, *Accipiter cooperii*
Double-crested cormorant, *Phalacrocorax auritus*
Downy woodpecker, *Picoides pubescens*
Ferruginous hawk, *Buteo regalis*
Grasshopper sparrow, *Ammodramus savannarum*
Golden eagle, *Aquila chrysaetos*
Great blue heron, *Ardea herodias*
Least Bell's vireo, *Vireo bellii pusillus*
Lincoln's sparrow (breeding), *Melospiza lincolnii*
Loggerhead shrike, *Lanius ludovicianus*
Macgillivray's warbler, *Oporornis tolmiei*
Merlin, *Falco columbarius*
Mountain plover (wintering), *Charadrius montanus*
Mountain quail, *Oreortyx pictus*
Nashville warbler, *Vermivora ruficapilla*
Northern goshawk, *Accipiter gentiles*
Northern harrier (breeding), *Circus cyaneus*
Osprey, *Pandion haliaetus*
Peregrine falcon, *Falco peregrinus*
Prairie falcon (breeding), *Falco mexicanus*
Purple martin, *Progne subis*
Sharp-shinned hawk, *Accipiter striatus*
So. California rufous-crowned sparrow, *Aimophila ruficeps canescens*
Southwestern willow flycatcher, *Empidonax traillii extimus*

Swainson's hawk, *Buteo swainsoni*
Tree swallow, *Tachycineta bicolor*
Tricolored blackbird (colony), *Agelaius tricolor*
Turkey vulture (breeding), *Cathartes aura*
Western yellow-billed cuckoo, *Coccyzus americanus occidentalis*
White-faced ibis, *Plegadis chihi*
White-tailed kite, *Elanus leucurus*
Williamson's sapsucker, *Sphyrapicus thyroideus*
Wilson's warbler, *Wilsonia pusilla*
Yellow warbler, *Dendroica petechia brewsteri*
Yellow-breasted chat, *Icteria virens*

Fish

Arroyo chub, *Gila orcutti*
Santa Ana sucker, *Catostomus santaanae*

Invertebrates

Riverside fairy shrimp, *Streptocephalus woottoni*
Santa Rosa Plateau fairy shrimp, *Linderiella santarosae*
Vernal pool fairy shrimp, *Branchinecta lynchi*
Delhi sands flower-loving fly, *Rhaphiomidas terminatus abdominalis*
Quino checkerspot butterfly, *Euphydryas editha quino*

Mammals

Aguanga kangaroo rat, *Dipodomys merriami collinues*
Bobcat, *Lynx rufus*
Brush rabbit, *Sylvilagus bachmani*
Coyote, *Canis latrans*
Dulzura kangaroo rat, *Dipodomys simulans*
Long-tailed weasel, *Mustela frenata*
Los Angeles pocket mouse, *Perognathus longimembris brevinasus*
Mountain lion, *Puma concolor*
Northwestern San Diego pocket mouse, *Chaetodipus fallax fallax*
San Bernardino flying squirrel, *Glaucomys sabrinus californicus*
San Bernardino kangaroo rat, *Dipodomys merriami parvus*
San Diego black-tailed jackrabbit, *Lepus californicus bennettii*
San Diego desert woodrat, *Neotoma lepida intermedia*
Stephens' kangaroo rat, *Dipodomys stephensi*

Plants

Beautiful hulsea, *Hulsea vestita* ssp. *callicarpa*
Brand's phacelia, *Phacelia stellaris*
California beardtongue, *Penstemon californicus*
California bedstraw, *Galium californicus* ssp. *primum*

California mulhy, *Muhlenbergia californica*
 California black walnut, *Juglans californica* var. *californica*
 California Orcutt grass, *Orcuttia californica*
 Chickweed oxytheca, *Oxytheca caryophylloides*
 Cleveland's bush monkeyflower, *Mimulus clevelandii*
 Cliff cinquefoil, *Potentilla rimicola*
 Coulter's goldfields, *Lasthenia glabrata* ssp. *coulteri*
 Coulter's matilija poppy, *Romneya coulteri*
 Davidson's saltscale, *Atriplex serenana* var. *davidsonii*
 Englemann oak, *Quercus engelmannii*
 Fish's milkwort, *Polygala cornuta* var. *fishiae*
 Graceful tarplant, *Holocarpha virgata* ssp. *elongate*
 Hall's monardella, *Monardella macrantha* ssp. *Hallii*
 Hammitt's clay cress, *Sibaropsis hammittii*
 Heart-leaved pitcher sage, *Lepechinia cardiophylla*
 Intermediate mariposa lily, *Calochortus weedii* var. *intermedius*
 Jaeger's milk-vetch, *Astragalus pachypus* var. *jaegeri*
 Johnston's rock cress, *Arabis johnstonii*
 Lemon lily, *Lilium parryi*
 Little mousetail, *Myosurus minimus*
 Long-spined spineflower, *Chorizanthe polygonoides* var. *longispina*
 Many-stemmed dudleya, *Dudleya multicaulis*
 Mojave tarplant, *Deinandra mohavensis*
 Mud nama, *Nama stenocarpum*
 Munz's mariposa lily, *Calochortus palmeri* var. *munzii*
 Munz's onion, *Alium munzii*
 Nevin's barberry, *Berberis nevinii*
 Ocellated Humboldt lily, *Lilium humboldtii* ssp. *ocellatum*
 Orcutt's brodiaea, *Brodiaea orcuttii*
 Palmer's grapplinghook, *Harpagonella palmeri*
 Palomar monkeyflower, *Mimulus diffusus*
 Parish's brittlescale, *Atriplex parishii*
 Parish's meadowfoam, *Limnanthes gracilis* var. *parishii*
 Parry's spineflower, *Chorizanthe parryi* var. *parryi*
 Payson's jewelflower, *Caulanthus simulans*
 Peninsular spineflower, *Chorizanthe leptotheca*
 Plummer's mariposa lily, *Calochortus plummerae*
 Prostrate navarretia, *Navarretia prostrate*
 Prostrate spineflower, *Chorizanthe procumbens*
 Rainbow manzanita, *Arctostaphylos rainbowensis*
 Round-leaved filaree, *Erodium machrophyllum*
 San Diego ambrosia, *Ambrosia pumila*
 San Diego button-celery, *Eryngium aristulatum* var. *parishii*
 San Jacinto Mountains bedstraw *Galium angustifolium* ssp. *jacinticum*

San Jacinto Valley crownscale, *Atriplex coronata* var. *notatior*
San Miguel savory, *Satureja chandleri*
Santa Ana River woollystar, *Eriastrum densifolium* ssp. *sanctorum*
Shaggy-haired alum root, *Heuchera hirsutissima*
Slender-horned spineflower, *Dodecahema leptoceras*
Small-flowered microseris, *Microseris douglasii* var. *platycarpa*
Small-flowered morning-glory, *Convolvulus simulans*
Smooth tarplant, *Centromadia pungens* ssp. *Laevis*
Spreading navarretia, *Navarretia fossalis*
Sticky-leaved dudleya, *Dudleya viscida*
Thread-leaved brodiaea, *Brodiaea filifolia*
Vail Lake ceanothus, *Ceanothus ophiophilus*
Vernal barley, *Hordeum intercedens*
Wright's trichocoronis, *Trichocoronis wrightii* var. *wrightii*
Yucaipa onion, *Allium marvinii*

Reptiles

Belding's orange-throated whiptail, *Cnemidophorus hyperythrus beldingi*
Coastal western whiptail, *Cnemidophorus tigris multiscutatus*
Granite night lizard, *Xantusia henshawi henshawi*
Granite spiny lizard, *Sceloporus orcutti*
Northern red-diamond rattlesnake, *Crotalus ruber ruber*
San Bernardino mountain kingsnake,
San Diego banded gecko, *Coleonyx variegates abbottii*
San Diego horned lizard, *Phrynosoma coronatum blainville*
San Diego mountain kingsnake,
Southern rubber boa, *Charina bottae umbratica*
Southern sagebrush lizard, *Sceloporus graciosus vandenburgianus*
Western pond turtle, *Clemmys marmorata pallida*

6.2.2 Species by Take Coverage Categories

Regarding take authorization, the list of Covered Species is divided into three categories: 1) Covered Species Adequately Conserved; 2) Covered Species Adequately Conserved once species-specific conservation objectives are satisfied; and, 3) Fully Protected and Specially Protected Species.

6.2.2.1 Covered Species Adequately Conserved

These species can be taken upon permit issuance.

Amphibians

Arroyo toad, *Bufo californicus*
California red-legged frog, *Rana aurora draytonii*

Coast range newt, *Taricha tarosa tarosa*
Mountain yellow-legged frog, *Rana mucosa*
Western spadefoot, *Scaphiopus hammondi*

Birds

American bittern, *Botaurus lentiginosus*
Bell's sage sparrow, *Amphispiza belli belli*
Black swift (breeding), *Cypseloides niger*
Black-crowned night heron, *Nycticorax nycticorax*
Burrowing owl, *Athene cunicularia hypugaea*
Cactus wren, *Campylorhynchus brunneicapillus*
California horned lark, *Eremophila alpestris actia*
Coastal California gnatcatcher, *Polioptila californica californica*
Cooper's hawk, *Accipiter cooperii*
Double-crested cormorant, *Phalacrocorax auritus*
Downy woodpecker, *Picoides pubescens*
Ferruginous hawk, *Buteo regalis*
Great blue heron, *Ardea herodias*
Least Bell's vireo, *Vireo bellii pusillus*
Loggerhead shrike, *Lanius ludovicianus*
Macgillivray's warbler, *Oporornis tolmiei*
Merlin, *Falco columbarius*
Mountain plover (wintering), *Charadrius montanus*
Mountain quail, *Oreortyx pictus*
Nashville warbler, *Vermivora ruficapilla*
Northern goshawk, *Accipiter gentiles*
Northern harrier (breeding), *Circus cyaneus*
Osprey, *Pandion haliaetus*
Prairie falcon (breeding), *Falco mexicanus*
Purple martin, *Progne subis*
Sharp-shinned hawk, *Accipiter striatus*
So. California rufous-crowned sparrow, *Aimophila ruficeps canescens*
Southwestern willow flycatcher, *Empidonax traillii extimus*
Swainson's hawk, *Buteo swainsoni*
Treeswallow, *Tachycineta bicolor*
Tricolored blackbird (colony), *Agelaius tricolor*
Turkey vulture (breeding), *Cathartes aura*
Western yellow-billed cuckoo, *Coccyzus americanus occidentalis*
White-faced ibis, *Plegadis chihi*
Wilson's warbler, *Wilsonia pusilla*
Yellow warbler, *Dendroica petechia brewsteri*
Yellow-breasted chat, *Icteria virens*

Fish

Arroyo chub, *Gila orcutti*
Santa Ana sucker, *Catostomus santaanae*

Invertebrates

Riverside fairy shrimp, *Streptocephalus woottoni*
Santa Rosa Plateau fairy shrimp, *Linderiella santarosae*
Vernal pool fairy shrimp, *Branchinecta lynchi*
Delhi sands flower-loving fly, *Rhaphiomidas terminatus abdominalis*
Quino checkerspot butterfly, *Euphydryas editha quino*

Mammals

Aguanga kangaroo rat, *Dipodomys merriami collinus*
Bobcat, *Lynx rufus*
Brush rabbit, *Sylvilagus bachmani*
Coyote, *Canis latrans*
Dulzura kangaroo rat, *Dipodomys simulans*
Long-tailed weasel, *Mustela frenata*
Los Angeles pocket mouse, *Perognathus longimembris brevinasus*
Northwestern San Diego pocket mouse, *Chaetodipus fallax fallax*
San Bernardino kangaroo rat, *Dipodomys merriami parvus*
San Diego black-tailed jackrabbit, *Lepus californicus bennettii*
San Diego desert woodrat, *Neotoma lepida intermedia*
Stephens' kangaroo rat, *Dipodomys stephensi*

Plants

Brand's phacelia, *Phacelia stellaris*
California beardtongue, *Penstemon californicus*
California black walnut, *Juglans californica* var. *californica*
California Orcutt grass, *Orcuttia californica*
Coulter's goldfields, *Lasthenia glabrata* ssp. *coulteri*
Davidson's saltscale, *Atriplex serenana* var. *davidsonii*
Englemann oak, *Quercus engelmannii*
Hall's monardella, *Monardella macrantha* ssp. *Hallii*
Hammit's clay cress, *Sibaropsis hammittii*
Heart-leaved pitcher sage, *Lepechinia cardiophylla*
Jaeger's milk-vetch, *Astragalus pachypus* var. *jaegeri*
Johnston's rock cress, *Arabis johnstonii*
Little mouseltail, *Myosurus minimus*
Long-spined spineflower, *Chorizanthe polygonoides* var. *longispina*
Many-stemmed dudleya, *Dudleya multicaulis*
Mud nama, *Nama stenocarpum*
Munz's mariposa lily, *Calochortus palmeri* var. *munzii*
Munz's onion, *Alium munzii*
Nevin's barberry, *Berberis nevinii*

Orcutt's brodiaea, *Brodiaea orcuttii*
 Palmer's grappplinghook, *Harpagonella palmer*
 Palomar monkeyflower, *Mimulus diffusus*
 Parish's brittlescale, *Atriplex parishii*
 Parish's meadowfoam, *Limnanthes gracilis* var. *parishii*
 Payson's jewelflower, *Caulanthus simulans*
 Prostrate navarretia, *Navarretia prostrate*
 Prostrate spineflower, *Chorizanthe procumbens*
 Round-leaved filaree, *Erodium machrophyllum*
 San Diego ambrosia, *Ambrosia pumila*
 San Diego button-celery, *Eryngium aristulatum* var. *parishii*
 San Jacinto Mountains bedstraw *Galium angustifolium* ssp. *jacinticum*
 San Jacinto Valley crownscale, *Atriplex coronata* var. *notatior*
 San Miguel savory, *Satureja chandleri*
 Santa Ana River woollystar, *Eriastrum densifolium* ssp. *sanctorum*
 Slender-horned spineflower, *Dodecahema leptoceras*
 Small-flowered morning-glory, *Convolvulus simulans*
 Smooth tarplant, *Centromadia pungens* ssp. *Laevis*
 Spreading navarretia, *Navarretia fossalis* Thread-leaved brodiaea, *Brodiaea filifolia*
 Thread-leaved brodiaea, *Brodiaea filifolia*
 Vail Lake ceanothus, *Ceanothus ophiochilus*
 Vernal barley, *Hordeum intercedens*
 Wright's trichocoronis, *Trichocoronis wrightii* var. *wrightii*
 Yucaipa onion, *Allium marvinii*

Reptiles

Belding's orange-throated whiptail, *Cnemidophorus hyperythrus beldingi*
 Coastal western whiptail, *Cnemidophorus tigris multiscutatus*
 Granite night lizard, *Xantusia henshawi henshawi*
 Granite spiny lizard, *Sceloporus orcutti*
 Northern red-diamond rattlesnake, *Crotalus ruber ruber*
 San Diego banded gecko, *Coleonyx variegates abbottii*
 San Diego horned lizard, *Phrynosoma coronatum blainvillei*
 Western pond turtle, *Clemmys marmorata pallida*

6.2.2.2 Covered Species Adequately Conserved once species-specific conservation objectives are satisfied

Another 29 Covered Species are not authorized for take until certain Conservation requirements are met at which time they will be considered to be Covered Species Adequately Conserved. Section 2.1.4 of Volume I (Part 1 of 2) and Table 9-3 list the 29 species and the objective criteria which must be met for them to be considered adequately conserved.

For 17 of the 29 species, particular species-specific Conservation objectives, which are identified

in Table 9-3 of the Plan, must be satisfied to shift those particular species to the list of Covered Species Adequately Conserved. When species-specific objectives contained in Section 9.2 and Volume II, Section B of the Plan are met for individual species described in these sections, written findings that the objectives have been met will be made by the RCA and will be transmitted to the RMOC and the Monitoring Program Administrator. Information supplied to the RMOC and MPA will include available data regarding the presence, distribution and status of the applicable species within the MSHCP Conservation Area and data supporting the conclusion that the species objectives have been met. In particular, data assembled as part of the MSHCP monitoring and Management Plan will be made available to the RMOC and the MPA. The RMOC and MPA will seek input, as appropriate, from the Independent Science Advisors, the Wildlife Agencies, management and monitoring personnel, and outside experts. The RMOC shall then notify the Wildlife Agencies that the species-specific objectives for that particular species has been met and the Wildlife Agencies will have sixty (60) days to review the data and inform the RCA if they do not agree with the conclusion of the RCA.

For the remaining 12 species, a Memorandum of Understanding must be executed with the Forest Service that addresses management for these species on Forest Service land in order to shift these species to the list of Covered Species Adequately Conserved (Table 9-3 of the MSHCP).

Birds

California spotted owl, *Strix occidentalis occidentalis*
Grasshopper sparrow, *Ammodramus savannarum*
Lincoln's sparrow (breeding), *Melospiza lincolnii*
Williamson's sapsucker, *Sphyrapicus thyroideus*

Mammals

San Bernardino flying squirrel, *Glaucomys sabrinus californicus*

Plants

Beautiful hulsea, *Hulsea vestita* ssp. *callicarpa*
California bedstraw, *Galium californicum* ssp. *primum*
California muhly, *Muhlenbergia californica*
Chickweed oxytheca, *Oxytheca caryophylloides*
Clevelands's bush monkeyflower, *Mimulus clevelandii*
Cliff cinquefoil, *Potentilla rimicola*
Coulter's matilija poppy, *Romneya coulteri*
Fish's milkwort, *Polygala cornuta* var. *fishiae*
Graceful tarplant, *Holocarpa virgata* ssp. *elongate*
Intermediate mariposa lily, *Calochortus weedii* var. *intermedius*
Lemon lily, *Lilium parryi*
Mojave tarplant, *Deinandra mohavensis*
Ocellated Humboldt lily, *Lilium humboldtii* ssp. *ocellatum*
Parry's spineflower, *Chorizanthe parryi* var. *parryi*
Peninsular spineflower, *Chorizanthe leptotheca*

Plummer's mariposa lily, *Calochortus plummerae*
Rainbow manzanita, *Arctostaphylos rainbowensis*
Shaggy-haired alumroot, *Heuchera hirsutissima*
Small-flowered microseris, *Microseris douglasii* var. *platycarpa*
Sticky-leaved dudleya, *Dudleya viscida*

Reptiles

San Bernardino mountain kingsnake, *Lampropeltis zonata parvirubra*
San Diego mountain kingsnake, *Lampropeltis zonata pulchra*
Southern rubber boa, *Charina bottae umbratica*
Southern sagebrush lizard, *Sceloporus graciosus vandenburgianus*

6.2.2.3 Fully Protected and Specially Protected Species

Take of these species must be avoided

Bald eagle, *Haliaeetus leucocephalus*
Golden eagle, *Aquila chrysaetos*
Peregrine falcon, *Falco peregrinus*
White-tailed kite, *Elanus leucurus*

Mountain lion, *Puma concolor*

6.3 Fully Protected and Specially Protected Species

As set forth in the NCCP findings, above, CDFG has determined that the Plan provides for the Conservation and management of four state fully protected species and one state specially protected. The four state fully protected species in the MSHCP Plan Area are: golden eagle, *Aquila chrysaetos*, bald eagle, *Haliaeetus leucocephalus*, white-tailed kite, *Elanus leucurus*, and peregrine falcon, *Falco peregrinus* and the one specially protected species is Mountain lion, *Puma concolor*.

As stated in the IA (Section 15.5), state fully protected species are included in the list of Covered Species. Fish and Game Code Section 3511 prohibits CDFG from authorizing take of these species at this time. Consequently, take of these four species is not authorized at the time this NCCP Permit is issued. CDFG has, however, determined that activities covered by the Plan can be carried out without causing take of the state fully protected birds (see Finding 5.2.1, above). Therefore, consistent with the terms of the Implementing Agreement, the Permittees may apply for an amendment to this Permit for these species in the event Section 3511 is repealed or amended in a manner that allows CDFG to authorize take of these birds under the Natural Community Conservation Planning Act.

CDFG acknowledges and agrees that if the measures set forth in the MSHCP are fully complied with, the Covered Activities are not likely to result in take of these species. If CDFG determines

that such measures are not adequate to prevent take of one of the state fully protected species, CDFG shall notify the RCA and Permittees in writing of such discovery and proposed new, additional, or different Conservation measures that it believes are necessary to avoid Take of these species.

If at any time there is a change in state law such that CDFG may issue a Section 2081(b) Permit, other permit, or authorization allowing the take of any species subject to California Fish and Game Code, Sections 3511, 4700, 4800, 5050 or 5515, the Permittees may apply for an amendment of the MSHCP and NCCP Permit or for a new permit for such species. In processing any such application, CDFG shall give good faith consideration to Take avoidance and mitigation measures already provided in the MSHCP and shall issue the amendment or Permit under the same terms and conditions as the existing NCCP Permit, to the extent permitted by law.

6.4 Limitations

This take authorization does not constitute or imply compliance with, or entitlement to proceed with any project under laws and regulations beyond the authority and jurisdiction of CDFG. The Permittees have independent responsibility for compliance with any and all applicable laws and regulations.

7.0 AMENDMENTS

This NCCP Permit may be amended in a manner consistent with provisions in the Western Riverside Multiple Species Habitat Conservation Plan and the Implementing Agreement. For example, an amendment will be considered in the event a species not identified in this NCCP Permit is listed as endangered or threatened pursuant Fish and Game Code Section 2070, or becomes a candidate for such listing pursuant to Fish and Game Code Section 2074.2, provided the Permittees provide for the conservation and management of the species.


8.0 SUSPENSION AND TERMINATION

This NCCP Permit is subject to suspension or termination by action of the Director of CDFG in accordance with the terms of the IA (Section 23.5).

9.0 DURATION

This NCCP Permit shall remain effective for 75 (seventy-five) years from the effective date below, unless suspended, terminated or extended by earlier action of the Director of CDFG.

Approved by:



Ronald D. Rempel, Deputy Director
California Department of Fish and Game

Date: 6/22/04