

CALIFORNIA DEPARTMENT OF FISH AND GAME

**NATURAL COMMUNITY CONSERVATION PLAN
PERMIT**

INCLUDING

FINDINGS OF FACT

under the

CALIFORNIA ENVIRONMENTAL QUALITY ACT

and the

NATURAL COMMUNITY CONSERVATION PLANNING ACT

for the

City of Carlsbad

Multiple Habitat Conservation Program (MHCP)

Subarea Plan

November 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 Habitat Management Plan for Natural Communities in the City of Carlsbad (“**Subarea Plan**”).¹ CDFG is acting as a responsible agency under the California Environmental Quality Act, Public Resources Code Section 21000 et seq. (“**CEQA**”), in approving the Subarea Plan as provided for in the Natural Community Conservation Planning Act, Fish and Game Code Sections 2800-2835² (“**NCCPA**”).

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 approve the “take” of species whose conservation and management is provided for in the NCCP (§2835), including species listed as endangered or threatened under the California Endangered Species Act, Sections 2050-2116 (“**CESA**”) and those protected by the Native Plant Protection Act (Cal. Public Resources Code §§ 1900 et seq.).

The NCCPA was originally enacted in 1991;³ was amended in 1993,⁴ 1994,⁵ 1996,⁶ 2000,⁷ and 2003.⁸ The NCCPA was substantially revised in 2002 by Senate Bill 107,⁹ which codified a number of CDFG’s administrative standards and practices for NCCP development and implementation and added other 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, requiring that

¹ The Subarea Plan and its associated Implementing Agreement identify this document as CDFG’s “NCCP Authorization.” The NCCP Permit and NCCP Authorization are the same document, for purposes of the Subarea Plan and associated documents.

² All further section references are to the Fish and Game Code, unless otherwise indicated.

³ Statutes 1991, chapter 765, Section 2 (A.B. 2172).

⁴ Statutes 1993, chapter 708, Section 1 (S.B. 755).

⁵ Statutes 1994, chapter 220, Section 1 (S.B. 1352).

⁶ Statutes 1996, chapter 593, Sections 1 and 2 (A.B. 3446).

⁷ Statutes 2000, chapter 87, Sections 1-3 (S.B. 1679).

⁸ Statutes 2003, chapter 61, Section 1 (S.B. 572).

⁹ Statutes 2002, chapter 4, Sections 1 and 2 (S.B. 107). Minor housekeeping changes were subsequently enacted as part of S.B.2052 (Stats. 2002, ch. 133, §§ 1 and 2, p. 568).

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 according to earlier versions of the NCCPA and according to the guidelines issued pursuant to those earlier statutes. For that reason, a number of the section references below to the NCCPA will be to former sections that, although replaced by new provisions in 2002, still set forth the relevant standards for grandfathered NCCPs under existing law.¹⁰

The NCCPA promotes cooperation and coordination among public agencies, landowners, and other private interests in developing NCCPs. CDFG is authorized to prepare and implement NCCPs with a wide variety of private and public interests, including individuals, organizations, companies, and state and local government agencies (§2810, subdiv. (a) §711.2 and former § 2810). Natural community conservation planning may be undertaken by local, state, and federal agencies independently or in cooperation with other individuals and entities (§ 2809 and former § 2820). An NCCP plan must be approved by CDFG before it is implemented (§ 2820, subdiv. (a) and former § 2820). To be approved, an NCCP plan must meet the standards set forth in statute (§ 2820 and § 2821), except that many of the plans that meet the criteria in § 2830 must instead meet the standards set forth in CDFG's NCCP Guidelines (see former § 2820 and former § 2825, subdiv. (a)). Pursuant to former FGC section 2825(a), CDFG was authorized to prepare non-regulatory guidelines to establish NCCP standards and to guide the development and implementation of NCCP Plans. NCCP plans are also subject to review under the California Environmental Quality Act, Public Resources Code § 21000 et seq. CDFG may authorize the "taking" of any identified species whose conservation and management is provided for in a CDFG approved NCCP plan (§ 2835 and former § 2835). Under the Fish and Game Code, "take" means to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" (§ 86).

1.2 Multiple Habitat Conservation Program

The Multiple Habitat Conservation Program (Volumes I, II, & III, March, 2003) ("**MHCP Plan**") sets forth a Multiple Habitat Conservation Program ("**MHCP**"). The MHCP is a comprehensive habitat conservation planning program that addresses multiple species habitat needs and the preservation of native vegetation communities for 175 square miles (111,908 acres) in northwestern San Diego County. It is one of several subregional habitat planning efforts in San Diego County that contribute to preservation of regional biodiversity through coordination with other habitat conservation planning efforts throughout southern California. The MHCP allows local jurisdictions to maintain land use control and development flexibility by planning a regional preserve system that can meet future public and private project mitigation needs. The MHCP

¹⁰ 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 other words to the NCCPA as amended through 2000 and disregarding changes made in 2002 by S.B. 107.

Plan is designed to streamline and coordinate existing procedures for review and permitting of project impacts to biological resources.

The MHCP preserve will protect biodiversity, enhance the quality of life in the San Diego region, and enhance the region's attractiveness as a location for business. The MHCP has been developed cooperatively by local jurisdictions with the goal of conserving native vegetation communities and associated species, rather than focusing preservation efforts on one species at a time. Historic loss of native vegetation has resulted in many species of wildlife becoming increasingly rare, and in some cases threatened with extirpation or extinction. It is likely that species will continue to be added to the federal and state threatened and endangered species lists, and without a multiple species conservation plan, could constrain future development, which would affect employment and the economic health of the region. The MHCP provides direct economic benefits by reducing constraints on future development outside the preserve and decreasing the costs of compliance with federal and state laws protecting biological resources.

Local jurisdictions will implement their respective portions of the MHCP Plan through subarea plans, which describe specific implementing mechanisms for the MHCP. The MHCP subarea plans contribute collectively to the conservation of vegetation communities and species in the MHCP study area. The combination of the subregional MHCP Plan and Carlsbad subarea plan will serve as a multiple species Habitat Conservation Plan pursuant to Section 10(a)(1)(B) of the federal Endangered Species Act ("FESA") and as an NCCP. The MHCP will be implemented in phases as participating jurisdictions submit their subarea plans to the United States Fish and Wildlife Service ("USFWS") and CDFG for approval. Upon approval, the USFWS and CDFG ("**Wildlife Agencies**") can authorize the take of listed species and other species of concern, subject to the terms of the subarea plan and the MHCP. Conservation and management responsibilities, and implementation guarantees for each subarea plan will be set forth in implementing agreements between the entity responsible for each subarea plan and the Wildlife Agencies.

The approximately 175-square mile (111,908 acres) MHCP area includes the Cities of Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach, and Vista. 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 over the past two decades.

The MHCP area is bounded by the Pacific Ocean to the west, Marine Corps Base Camp Pendleton to the north, and unincorporated San Diego County to the east and south. Conservation planning also is being conducted by San Diego County (the "Multiple Species Conservation Program" to the south, "Multiple Species Conservation Program North County Subarea" to the northeast, and "Multiple Habitat Conservation and Open Space Program" to the east). When fully implemented, the MHCP and these other subregional plans will create an interconnected habitat preserve system throughout the 4,200-square-mile county. These

programs have been coordinated in all key scientific, public policy, and finance/acquisition strategy aspects and have been designed to complement planning efforts in Orange and Riverside counties.

Topography in the study area ranges from flat to hilly, with relatively gentle slopes on the coastal terraces and in broad valleys. Steeper hills, ranging up to about 2,100 feet in elevation, are found in the south-central portion of the study area (eastern Carlsbad and southern San Marcos), and in northern portions of San Marcos and Escondido. Steep canyons associated with predominantly east-west drainages cut through some of the hills and mesas. Four coastal lagoons are more or less evenly distributed along the coast, each representing the terminus of one or more local drainages. One major river, the San Luis Rey, crosses the northern portion of the study area through the City of Oceanside.

1.3 City of Carlsbad Subarea Plan

Because the City of Carlsbad Subarea Plan was developed as an element of the Multiple Habitat Conservation Program, the Subarea Plan must necessarily be analyzed with reference to and in the context of the previously approved Multiple Habitat Conservation Program. The Subarea Plan and Multiple Habitat Conservation Program, when read together, make an integrated NCCP within the area covered by the Subarea Plan. Therefore, as used in this document, the term “Subarea Plan” refers not only to the Subarea Plan itself but also to those portions of the Multiple Habitat Conservation Program that relate to and provide context to the Subarea Plan. CDFG’s findings, for example, are based in part on facts contained in the Multiple Habitat Conservation Program. That said, the Subarea Plan is designed to be a complete and independently viable plan that is not generally dependent on implementation of other subarea plans within the subregion, except as specifically noted in the Subarea Plan.

The Subarea Plan is set forth in Volume I of the March, 2003 MHCP Plan. The Subarea Plan has been prepared pursuant to a general outline developed by the Wildlife Agencies to meet the requirements of the NCCPA. The Subarea Plan is the basis of the Implementing Agreement by and between the Wildlife Agencies and City of Carlsbad (City), executed concurrently with this NCCP Permit. The Subarea Plan is consistent with, and implements, in part, the MHCP Plan and, in addition, qualifies as a stand alone document to implement, in part, the MHCP Preserve.

The City’s preserve was designed by the City in cooperation with the Wildlife Agencies, property owners, developers, and environmental groups. The majority (89 percent) of the preserve consists of hard-line areas designated for 100 percent preservation. These 100 percent conservation areas are either already in public ownership or will be dedicated into the Preserve as part of the development approval process for Covered Projects. Preserve boundaries for Covered Projects were established on a project-by-project basis after evaluation of habitat and species data and/or surveys conducted as part of project entitlement processing, evaluation by the Wildlife Agencies, and consideration of how such mitigation could best contribute to the overall MHCP

and subregional planning effort. A relatively small portion of the preserve is comprised of 75 to 100 percent conservation areas, which consist of smaller private landholdings; the Subarea Plan requires that a minimum of 75 percent of these lands must be conserved. In addition, there are some areas proposed for 67 percent conservation in the Subarea Plan.

The City is located in a highly urbanized area (approximately 65 percent developed) and has a population of approximately 63,000. Because of existing patterns of development and continued agricultural use, there is a high degree of habitat fragmentation. Also, several large areas of the City have previously been granted take permits by the USFWS under Sections 7 and 10(a) of the Endangered Species Act. Given these facts, the Subarea Plan proposes to preserve the diversity of natural communities and protect sensitive biological resources by establishing a preserve system that:

- builds on existing levels of dedicated open space and conservation;
- conserves larger, remaining blocks or cores of habitat capable of sustaining threatened, listed or sensitive species over time (Subarea Plan cores);
- provides linkages that ensure connectivity to Subarea Plan cores within the City and to natural communities in adjoining jurisdictions and the region, while also preserving additional habitat;
- protects Special Resource Areas (SRAs) outside of the core and linkage areas which are defined herein as vernal pools, significant populations of listed plant species, and movement corridors for large mammals; and
- provides for participation in conserving a habitat core in the county area southeast of the City (MHCP core).

The Subarea encompasses 24,570 acres within the MHCP area. There are approximately 8,800 acres of remaining habitat in the City. The strategy is to establish a preserve system of approximately 6,400 acres, consisting of existing hardline preserve areas (existing dedicated open space), proposed hardline preserve areas (proposed open space) and standards areas (planned open space). The strategy also includes participation in the conveyance of lands in the MHCP core area. The preserve system is intended to provide conservation and management of natural communities in the plan area, and adequate conservation and coverage specifically for the species listed on the Subarea Plan Covered Species list.

Based on existing distribution of vegetation communities and sensitive species, Focus Planning Areas (FPAs) were identified. The FPAs were further broken down into Subarea Plan cores, linkages, and Special Resource Areas (SRAs). These areas include eight core FPAs that are connected to one another and to habitat areas outside the City by a variety of linkages and wildlife movement corridors. These areas served as a basis for biological planning for the establishment of the proposed preserve system and do not represent exact boundaries.

1.4 Implementing Agreement

CDFG plans to execute the Implementing Agreement to Establish the Habitat Management Plan for the Conservation of Threatened, Endangered, and Other Species in the City of Carlsbad, California (“**Implementing Agreement**”) concurrently with this NCCP Permit. The Implementing Agreement is an agreement between CDFG, USFWS, and the City of Carlsbad that is designed to ensure the implementation of the MHCP and the Subarea Plan, to bind each party to the terms of the MHCP and Subarea Plan, and to provide remedies and recourse for failure to adhere to the terms of the MHCP or subarea plan. This NCCP Permit specifically applies to the Subarea Plan as implemented pursuant to the Implementing Agreement, including but not limited to Section 11.3, Regulatory Implementation Measures. These measures are conditions of permit approval (see Section 6.1).

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, with the exception of materials CDFG excludes as privileged or as otherwise permitted by law:

- All materials prepared by the City 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 Subarea 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 Subarea Plan;
- All notices issued to comply with CEQA, the NCCPA, or with any other law relevant to and governing the processing and approval of the NCCP Permit by CDFG;
- All written comments received by CDFG in response to, or in connection with, environmental documents prepared for the project;
- All written evidence or correspondence submitted to, or transferred from, CDFG with respect to compliance with CEQA or with respect to the Subarea Plan;
- Any proposed decisions or findings related to the Subarea Plan submitted to CDFG by its staff, the City, Subarea 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 Subarea 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 Subarea Plan, and all non-privileged internal agency communications, including staff notes and memoranda related to the Subarea 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 CDFG located at 1416 Ninth Street, Sacramento, California 95814 and 4949 Viewridge Avenue, San Diego, California 92123. All related inquiries should be directed to CDFG's Office of 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 Subarea Plan, even if every document was not formally presented to CDFG or its staff as part of the CDFG files generated in connection with the Subarea Plan. Without exception, any documents set forth above not found in CDFG's files for the Subarea Plan fall into one of two categories. Certain documents reflect prior planning or legislative decisions of which CDFG was aware in approving the Subarea 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 Subarea Plan. For that reason, such documents form part of the underlying factual basis for CDFG's decision related to the Subarea 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 Subarea Plan because of its authority under the NCCPA. (See generally Pub. Resources Code, §§ 21002.1, subd. (d) and 21069; CEQA Guidelines, § 15381.) CDFG accordingly makes the findings that appear in Section 3.5, below, under CEQA as part of its discretionary decision to approve the Subarea Plan and authorize resulting take of species whose conservation and management is provided for in the plan.

The City is the CEQA “lead agency” for purposes of the Subarea Plan and has completed environmental review and approval of the plan. (See generally Pub. Resources Code, § 21067; CEQA Guidelines, § 15367.). The City analyzed the environmental effects of implementing the draft Subarea Plan in a mitigated negative declaration (MND; SCH No. 99061082), which was adopted on September 21, 1999, and subsequently in a negative declaration (ND; SCH No. 2002121100), for the Second Addendum to the Subarea Plan and Local Coastal Plan Amendment, which was adopted on February 4, 2003. In addition, the draft Subarea Plan was analyzed under the MHCP Subregional Plan in the *Final EIR/EIS for Threatened and Endangered Species Due to Urban Growth Within the Multiple Habitat Conservation Program Planning Area* (San Diego Association of Governments and U.S. Fish and Wildlife Service, March 2003; SCH No. 93121073) that was certified on March 28, 2003; and the City’s *Addendum to the Final EIR/EIS for Threatened and Endangered Species Due to Urban Growth Within the Multiple Habitat Conservation Program Planning Area* (SCH No. 93121073; Addendum to the Final EIR/EIS), which was certified on June 17, 2003.

In analyzing and approving the Subarea Plan, the City, 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).)

These CEQA findings pertain to CDFG’s proposed NCCP Approval and Take Authorization (“NCCP Approval”) for the Subarea Plan. The Subarea Plan implements the City’s component of the much larger and comprehensive subregional plan of the MHCP that encompasses 7 jurisdictions and 111,908 acres in the northwestern part of San Diego County. Together, the MHCP Subregional Plan and the Subarea Plan form an integrated plan that addresses impacts to wildlife and wildlife habitat that may result from planned development and habitat and species management activities within the jurisdictional boundaries of San Diego County. As the CEQA Lead Agency for the MHCP, SANDAG, in consultation with CDFG, USFWS, and other responsible agencies, including the City, prepared the *Environmental Impact Statement/Environmental Impact Report for Threatened and Endangered Species Due To Urban Growth within the Multiple Habitat Conservation Program Planning Area*, dated November 2000, and the *Final Environmental Impact Statement/Environmental Impact Report for*

Threatened and Endangered Species Due To Urban Growth within the Multiple Habitat Conservation Program Planning Area, dated March 2003 (SCH No. 93121073), which was certified and adopted by the Lead Agency on March 28, 2003. Subsequently, the City, as a Responsible Agency under CEQA for purposes of the MHCP, independently reviewed and considered the information contained therein prior to approving the Subarea Plan. The City also prepared an Addendum to the EIR/EIS dated June 2003. On June 17, 2003, the City Council made findings as a Responsible Agency under CEQA and adopted the MHCP and the City Subarea Plan. The City subsequently submitted the Subarea Plan to CDFG for approval as a NCCP pursuant to §2800, et. seq.

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 Subarea 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 SANDAG fully complies with CEQA. (CEQA Guidelines, § 15096, subd. (e)(1)-(2); *City of Redding, supra*, 209 Cal.App.3d at pp. 1178-1181; see also Pub. Resources Code, § 21167.2; *Laurel Heights Improvement Association, supra*, 6 Cal.4th at p. 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 Subarea Plan NCCP Permit.

3.3 Scope of Findings

CDFG is a responsible agency under CEQA for purposes of approving the Subarea 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 Subarea 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 Subarea 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 City certified the Addendum to the Final EIR/EIS in approving the Subarea 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. Pub. Resources Code, § 21002.1, subd. (d) 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[.]” 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 Subarea Plan. CDFG believes that all mitigation and conservation measures that it has relied on for purposes of its findings are separately required under the Subarea Plan, the MHCP Subregional Plan or 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 the City or of those operating under authority of this NCCP Permit.

3.5 Findings Regarding Potentially Significant Environmental Effects

Impacts to species covered under the Subarea Plan are generally off-set through a combination of conservation and management of occupied/suitable habitat, conservation of known locations of Covered Species, and/or through a variety of avoidance or conservation actions intended to benefit particular species. All Covered Species are expected to benefit by the system of large, interconnected blocks of habitat that the City’s Subarea Plan, in conjunction with the MHCP Subregional Plan, will establish and preserve in perpetuity. The Preserve will be adaptively managed, per the measures in the City’s Subarea Plan and MHCP Subregional Plan, which will further reduce the indirect effects and benefit all Covered Species, including rare, threatened, and endangered species. A key element of the Subarea Plan is the MHCP Narrow Endemic Species Policy (Appendix D of MHCP Volume II) which ensures a high level of protection to species identified as having an extremely limited distribution within the MHCP and/or the Subarea Plan. A second key element is the Critical Populations Policy (Appendix D of MHCP Volume II), which states that impacts to narrow endemic populations listed as “Critical” in Volume II of the MHCP must be totally avoided. These policies shall be applied to all MHCP narrow endemic species (see species summary below under the heading *Narrow Endemic Species Policy*) and critical populations (identified in Section 4 of Volume II) in the Subarea, and will not be limited to Covered Species. The MHCP assumes that CEQA requirements for quantifying and mitigating project impacts on biological resources, including the need for species surveys where potential habitat exists, will apply (Section 4.0 of Volume II). These key policies and requirements for the Subarea Plan to protect biological resources are summarized below.

Major Populations

Certain locations within the MHCP are designated as supporting major populations of particular species. Major Populations were defined by the MHCP Biological Goals Standards and Guidelines as those “sufficiently large to be self-sustaining with a minimum of active or intensive management intervention (especially for plants) or that at least support enough breeding individuals to contribute reliably to the overall metapopulation stability of the species (especially for animals).” Pursuant to this definition, some species location points, or clusters of location points, are coded as major populations in the MHCP database and mapped on the species distribution maps in MHCP Volume II, Section 4. Although MHCP policies have not comprehensively established higher conservation standards for major population areas relative to other occupied habitat areas (except for narrow endemics, see discussion below), subarea plans are expected to substantially conserve all major population areas. Consequently, any project in or adjacent to a major population site must document adequate avoidance, minimization, and mitigation actions (Section 3.7 of MHCP Volume I). In addition, the species-specific permit conditions listed in MHCP Volume II (Section 4) may reference specific avoidance, minimization, and mitigation standards for selected major population areas.

Critical Locations

Some major population areas, along with other areas that are considered essential to reserve design, are designated as critical locations, which are defined as “areas that must be substantially conserved for that species [or vegetation community] to be considered adequately conserved by the MHCP.” Examples of critical locations include population sites expected to contribute significant genetic diversity for a species; areas that provide essential nesting, roosting, or wintering sites or structures (especially for birds); essential wildlife movement corridors (especially for large mammals and selected amphibians, reptiles, and birds), or currently unoccupied habitat needed to accommodate population expansion (especially for narrow endemic species whose populations must be increased as a hedge against extinction). The MHCP Critical Location Policy (Appendix D of MHCP Volume II) applies to all locations listed and mapped as critical in MHCP Volume II (Section 3.7 of MHCP Volume I), or that are found to meet the definition of critical in the future. The policy dictates that subarea plans will require maximum avoidance of impacts, minimization of impacts, and species-specific mitigation measures for unavoidable impacts, regardless of whether the critical location is inside or outside of the FPA. Maximum avoidance and minimization shall be interpreted as avoidance of impacts to the degree practicable while maintaining some economic or productive use of the property, as supported by adequate facts (see section D.3.C.6 of the Subarea Plan for a discussion of measures to minimize impact on Covered Species and mitigation requirements). Mitigation for unavoidable impacts and management practices must be designed to achieve no net loss in viability of critical populations, including no net loss in ecological functions for habitat areas, wildlife movement corridors, and linkages. In no case shall a city permit more than 20 percent gross cumulative loss

of critical populations or occupied habitat acreage (whichever is most appropriate for the species) (Section 3.7 of MHCP Volume I). This will be based on Wildlife Agency concurrence.

Narrow Endemic Species Policy

Narrow endemic species are MHCP species that are highly restricted by their habitat affinities, edaphic requirements, or other ecological factors, and that may have limited but important populations within the MHCP area, such that substantial loss of these populations or their habitat within the MHCP area might jeopardize the continued existence or recovery of that species. Nearly all known populations of narrow endemics, and certainly all major and critical populations, must be substantially conserved for the species to be considered covered. Jurisdictions will specify measures in their subarea plans to ensure that impacts to narrow endemic species are avoided to the maximum extent practicable. However, some limited taking of narrow endemics is anticipated to occur outside the Focused Planning Areas (FPA) in exchange for species-specific mitigation measures (Appendix D of MHCP Volume II).

Inside of FPAs, the MHCP assumes that all subarea plans will require, in priority order, maximum avoidance of project impacts, minimization of impacts, and species-specific mitigation measures for unavoidable impacts. Maximum avoidance and minimization shall be interpreted as avoidance of impacts to the degree practicable without precluding reasonable use of the property (see Section 3.7 of the MHCP for the process to determine adequacy of avoidance and minimization). Avoidance and minimization measures shall include biologically justified buffer zones around narrow endemic population sites to allow for natural expansion and contraction of populations, persistence of pollinators, and other essential ecological functions (see species evaluations in Volume II of the MHCP). Mitigation for unavoidable impacts and management practices shall be designed to achieve no net loss of narrow endemic populations, occupied acreage, or population viability within the FPA. In hardline FPA areas, location points for narrow endemics were calculated as 100 percent conserved by impact avoidance. In softline areas, narrow endemic points were calculated as 95 percent conserved by avoidance, minimization, and species-specific mitigation. In no case shall a city permit more than 5 percent gross cumulative loss of narrow endemic populations (based on species points) or occupied acreage (whichever is most appropriate for the species) within the FPA (Appendix D of MHCP Volume II). This will be based on Wildlife Agency concurrence.

Outside of FPAs, the MHCP assumes that all subarea plans will require maximum avoidance of impacts to critical and major populations, and will require, in priority order, avoidance, minimization, and mitigation for impacts to any populations. Outside of the FPA, narrow endemic points were calculated as 80 percent conserved based on avoidance, minimization, and species-specific mitigation. In no case shall a city permit more than 20 percent gross cumulative loss of narrow endemic locations, population numbers, or occupied acreage (whichever is most appropriate for the species) within the city. Unavoidable impacts shall be mitigated based on species-specific criteria defined in subarea plans. Such mitigation shall be designed to minimize

adverse effects to species viability and to contribute to species recovery. Any conserved lands that support narrow endemic species must be added to the MHCP preserve system and managed for the continued viability of the population. Mitigation for unavoidable impacts must be designed to achieve no net loss of narrow endemic population locations, occupied acreage, or population viability in the MHCP subregion, and preferably, but not necessarily, within each subarea (Appendix D of MHCP Volume II).

The MHCP defines a number of species as Narrow Endemics. Coverage for these species generally requires substantial avoidance of known or newly discovered populations, and participating jurisdictions to specify and implement measures in their individual subarea plans to avoid or minimize impacts to all populations. The Subarea Plan's standards require 100 percent conservation of Narrow Endemics in FPAs (see Section D.3.C) and at least 80 percent conservation outside of preserve areas (see Section D.6).

Species known to occur in the Carlsbad Subarea that are identified in the MHCP as narrow endemics are Orcutt's hazardia, San Diego thorn-mint, Del Mar manzanita, Encinitas baccharis, thread-leaved brodiaea, Del Mar Mesa sand aster, San Diego button celery, San Diego goldenstar, little mouseltail, prostrate navarretia, California Orcutt grass, Riverside fairy shrimp, San Diego fairy shrimp, Nuttall's lotus, and coastal cactus wren (however, the last two species are not listed in the HMP as narrow endemics). In addition, the Carlsbad Subarea Plan has listed Orcutt's brodiaea, Blochman's dudleya, and Hermes copper as narrow endemic species. There are no documented locations of Hermes copper in the Subarea, but there is suitable habitat (redberry and flat-topped buckwheat) for this species. If found, Hermes copper would be afforded the additional narrow endemic protections described above. The following MHCP narrow endemic species are not expected to occur in the Carlsbad Subarea: San Diego ambrosia, Orcutt's spineflower, short-leaved dudleya, variegated dudleya, oblivious tiger beetle, Harbison's dun skipper, and Pacific little pocket mouse.

Critical Populations Policy

Regardless of location (inside or outside of FPA), narrow endemic populations listed as "Critical" in Volume II of the MHCP (Appendix D of MHCP Volume II) must be totally avoided, and any narrow endemic populations that are later discovered and determined to meet the criteria for a critical population must be maximally avoided. Maximum avoidance shall be interpreted as avoidance of impacts to the degree practicable without precluding reasonable use of the property (see Volume I Section 3.7 of the MHCP for the process to determine adequacy of avoidance and minimization). Avoidance and minimization measures shall include biologically justified buffer zones around critical population sites to allow for natural expansion and contraction of populations, persistence of pollinators, and other essential ecological functions (see species evaluations in Volume II of the MHCP). Mitigation for unavoidable impacts and management practices must be designed to achieve no net loss of critical populations, occupied

acreage, or population viability within the MHCP area. In no case shall a city permit more than 5 percent gross cumulative loss of critical populations or occupied acreage (whichever is most appropriate for the species).

Wetlands Policy

The conservation of wetland-dependent species is based on the MHCP policy of no net loss of wetland habitats (see Section 3.6 of MHCP Volume I). Subarea plans also incorporate the no net loss policy. Jurisdictional wetlands are expected to continue to be regulated under the federal Clean Water Act (Section 404) and the California Fish and Game Code Section 1600 et seq.

Obligate Wetland Species

These are species for which all life requisites provided in the MHCP area are expected to be within open water or wetland vegetation communities, which are subject to the MHCP no net loss policy (see Section 3.6 of MHCP Volume I). Consequently, inside the FPA, all MHCP database observation points for obligate wetland species were calculated as 100 percent conserved. This assumes 100 percent conservation of the habitat, and active habitat management to ensure no loss of habitat value to support the species. Although wetland habitats outside the FPA are also 100 percent conserved by the no net loss policy, associated wetland species outside the FPA are calculated as 0 percent conserved, because active management to ensure habitat value will not be guaranteed outside the FPA (see Section 3.3 of MHCP Volume I). Take authorization for wetland species (see findings below) is based upon active management to ensure habitat value for populations within the preserve.

CDFG CEQA Findings for Adequately Conserved Species

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 City under NCCPA. Such effects are limited, specifically, to the take of a subset of the 43 listed and non-listed species referred to collectively as "Covered Species" in the Carlsbad Subarea Plan attached as Exhibit A). The NCCP Permit does not authorize the take of four Fully Protected species (California brown pelican, light-footed clapper rail, American peregrine falcon, and California least tern), although those species are Covered Species which will benefit from the conservation and management provided by the Subarea Plan. Take authorization for San Diego ambrosia, sticky dudleya, San Diego barrel cactus, and Engelmann oak depends on other MHCP Subarea Plans being permitted. Take authorization for Del Mar manzanita, Encinitas baccharis, Summer holly, Del Mar Mesa sand aster, San Diego button-celery, spreading navarretia, little mousetail, California Orcutt grass, Torrey pine, San Diego fairy shrimp, and Riverside fairy shrimp depends on funding for the management of conserved areas. Take authorization for San Diego thorn-mint, wart-stemmed ceanothus, and San Diego marsh elder depends on both other MHCP subarea plans being permitted and funding for the management of conserved areas. The

NCCP Permit authorizes the take of 21 Covered Species at this time, with an additional 18 species requiring additional conditions to be met before take is authorized. CDFG, as a consequence, hereby makes the following findings under CEQA with respect to effects on each Covered Species by the Carlsbad Subarea Plan as authorized under NCCPA.

Impact 3.5.1

Approval of the Subarea Plan and issuance of the NCCP Permit could result in potentially significant adverse impacts on the following low elevation shrubland species and their habitat: Orcutt's hazardia (*Hazardia orcuttii*), Nuttall's scrub oak (*Quercus dumosa*), orange-throated whiptail (*Cnemidophorus hyperythrus beldingi*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), and coastal California gnatcatcher (*Poliophtila californica californica*).

Finding 3.5.1

CDFG finds that changes have been required in, or incorporated into, the Subarea Plan, the MHCP Plan, and the NCCP Permit that avoid or mitigate project-related impacts on low elevation shrubland species and their habitat to below a level of significance. (**Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).**)

Explanation 3.5.1

CDFG finds that approval of the Subarea Plan and issuance of the NCCP Permit could result in potentially significant impacts on certain low elevation shrubland species and their habitat because land use development will destroy or adversely affect some of the area's scrub and chaparral habitat, and the Subarea Plan and Permit allow take of Covered Species that utilize such habitats. Furthermore, management activities within the Subarea Preserve may also result in take of low elevation shrubland species and might temporarily disturb their habitat (see Section F of Subarea Plan). The potential impact of the Subarea Plan and NCCP Permit on individual low elevation shrubland species is more specifically disclosed in: Attachment 1 of this NCCP Permit; Table 2, Table 9, and Appendix C of the Subarea Plan; and Section 4 of Volume II of the MHCP Subregional Plan.

This group of species includes two plant and three animal species commonly associated with scrub and chaparral vegetation communities in the coastal lowlands (generally greater than 1,000 feet elevation); however, many of these species may also occur at higher elevations and in other habitat types (e.g., grassland, etc.). Within the low elevation shrubland group, CDFG finds that impacts will be potentially significant on those species that are known to exist within the City. Species found in this area include Nuttall's scrub oak, orange-throated whiptail, southern California rufous-crowned sparrow, and coastal California gnatcatcher, and these are consequently the species that will be subject to the potentially significant impacts identified above. Another low elevation shrubland species covered by the Subarea Plan is Orcutt's hazardia, a narrow endemic species. The only known population of Orcutt's hazardia within the Subarea will be preserved at the Kelly Ranch conservation area and managed in perpetuity.

CEQA requirements for quantifying and mitigating project impacts on biological resources include the need for species surveys where potential habitat exists (Section 4.0 of MHCP Volume II). Prior to initiating CEQA review, pre-project site visits will be conducted by a qualified biologist in Standards Areas (see Section E.3.B of the Subarea Plan) to ensure that projects comply with the conservation requirements in the Subarea Plan (see Section D). All projects within the Standards Areas will be required to submit a project description and maps that identify: 1) the project's location in relationship to existing conserved habitat within the City; 2) the habitat types and any known occurrence of species in the Subarea Plan and other species of concern in and adjacent to the project area; 3) the expected location, type, and intensity of habitat impacts in the project area; 4) any open space requirement identified for the area under the General Plan; and 5) specific conservation measures to ensure compliance with zone-level and species specific standards. Such baseline information is essential to appropriately evaluate impacts to such habitat, and to apply mitigation ratios in accordance with the functions and values of both the impacted habitat, as well as the mitigation habitat proposed by a project, as discussed in Section D.6 of the Subarea Plan. Therefore, where baseline information does not exist, or may be outdated, surveys will be performed, as appropriate, during the CEQA review process. This will ensure that appropriate mitigation ratios and/or restoration requirements, Narrow Endemics policies, and other species-specific measures, identified in the Subarea Plan and MHCP Subregional Plan, are implemented.

The Final EIR/EIS for Threatened and Endangered Species Due to Urban Growth Within the Multiple Habitat Conservation Program Planning Area concludes that coastal sage scrub and chaparral mix are not adequately conserved by the MHCP, but that significant impacts to this vegetation community can be mitigated through the additional conservation of at least 400 to 500 acres of high-quality, contiguous coastal sage scrub, supporting 16 to 23 pairs of gnatcatchers, in the gnatcatcher core conservation area (Section 4.3.4 of MHCP Final EIR/EIS Volume I). The core conservation area is generally located outside of the MHCP boundary, in unincorporated San Diego County, south of San Marcos and east of Encinitas and Carlsbad (the red circle on Figure 3-1 of MHCP Volume I).

The City will mitigate for its significant impact to coastal sage scrub and chaparral mix and the gnatcatcher through off-site conservation of like habitat in the core conservation area. Most major populations of gnatcatchers in the Carlsbad FPA are substantially conserved, except on properties that are already permitted for take. However, major populations of gnatcatchers in central Carlsbad will be only partially conserved, and this will lead to further fragmentation of the population in this area. The partial conservation of this major population is a significant impact on this species; however, the City will mitigate for this impact by acquiring and assuring the management of 308 acres of high quality coastal sage scrub in the gnatcatcher core conservation area in the unincorporated area. In addition, the City will further mitigate these effects by restoring and enhancing at least 104 acres of coastal sage scrub in the Carlsbad subarea.

The impact on species within the MHCP Preserve, including the Subarea Preserve, is expected to be small in comparison to impacts outside preserve areas because they will be limited to occasional take and temporary habitat impacts associated with management activities designed to benefit these species and other Covered Species (Section F of Subarea Plan). CDFG nonetheless concludes that this impact may be potentially significant because management activities may result in the take of some Covered Species and to disturb, at least temporarily, protected habitat within the MHCP Preserve.

CDFG concludes that this impact, while potentially significant, has been mitigated to below a level of significance by the conservation features that have been built into the Subarea Plan and the MHCP Subregional Plan. The Subarea Plan estimated that 2,139 acres of coastal sage scrub (65 percent of Subarea total), 342 acres of southern maritime chaparral (87 percent of Subarea total), and 676 acres of chaparral habitat (70 percent of Subarea total) would be preserved. A combination of habitat-based mitigation and the conservation of known core and/or major populations of species in this low elevation shrubland group is the basis of determining adequate mitigation for potential impacts under the Subarea Plan. The Subarea Plan and MHCP Subregional Plan will preserve habitat in large, interconnected blocks that will be protected in perpetuity, and this Preserve will be adaptively managed through Area Specific Management Directives (ASMDs) (Section 1.2 of MHCP Volume III, and Section F.2.F and Table 9 of the Subarea Plan) developed for particular locations of the Preserve, as well as requirements in the MHCP's Biological Monitoring and Management Plan (SANDAG and USFWS 2003). Preservation of large interconnected blocks of habitat and adaptive management of conserved habitat to adjust for changes in Covered Species will benefit these species and mitigate the loss of low elevation shrubland species and their habitat. In addition, these species will benefit from the Subarea Plan requirement for minimum 20-foot buffers between development and all preserved upland, native habitat (see Section D.7-11 of Addendum 2). Buffer widths shall be measured from the edge of preserved habitat nearest the development to the closest point of development. Southern California rufous-crowned and coastal California gnatcatcher will benefit from the Subarea Plan (Section D in Addendum 1) requirements for restricting or limiting recreational or other activities within 200 feet of important foraging, breeding, and roosting areas, and attenuation measures for activities that generate noise levels greater than 60 dB if occurring within 200 feet of important breeding habitat during the nesting season.

Additional benefit to these species may be derived through the City's Grading Ordinance which regulates clearing and grubbing of sensitive biological resources to ensure compliance with the Subarea Plan. The mitigation and conservation benefits that individual low elevation shrubland species would derive from the Subarea Plan are more specifically identified in Attachment 1 of this NCCP Permit.

CDFG finds that its approval of the Subarea Plan and its issuance of the NCCP Permit could result in a significant impact on these low elevation shrubland species and their habitat from land use development, other covered activities and from management of the MHCP Preserve, but

concludes that this impact will be avoided or mitigated to below a level of significance through implementation of the Subarea Plan and the MHCP Subregional Plan, and compliance with the conditions (including for pre-project surveys) of the NCCP Permit. Key to this finding by CDFG are requirements that a Preserve be established and adaptively managed for the benefit of these species, that any low elevation shrubland habitat that is lost within the Subarea will be replaced with in-tier habitat consistent with the Subarea Plan and MHCP; and, that other impact avoidance, mitigation, and management measures in the Subarea Plan, MHCP Subregional Plan, and NCCP Permit will be implemented. CDFG's findings are based on the overall conservation strategy, monitoring and management program, and species-specific conditions for coverage identified in the MHCP and the Subarea Plan (Table 2, Table 9, and Appendix C of the Subarea Plan; Section 4 of Volume II of the MHCP Subregional Plan; and other sources identified in this finding).

Impact 3.5.2

Approval of the Subarea Plan and issuance of the NCCP Permit could result in potentially significant adverse impacts on the following riparian/freshwater marsh/aquatic species and their habitat: Harbison's dun skipper, Cooper's hawk (*Accipiter cooperii*), osprey (*Pandion haliaetus*), American peregrine falcon (*Falco peregrinus anatum*), southwestern willow flycatcher (*Empidonax traillii extimus*), white-faced ibis (*Plegadis chihi*), least Bell's vireo (*Vireo bellii pusillus*), and yellow-breasted chat (*Icteria virens*).

Finding 3.5.2

CDFG finds that changes have been required in, or incorporated into, the Subarea Plan, the MSCP Plan and the NCCP Permit that avoid or mitigate project-related impacts on riparian/freshwater marsh/aquatic species and their habitat to below a level of significance. **(Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).)**

Explanation 3.5.2: CDFG finds that approval of the Subarea Plan and issuance of the NCCP Permit could result in potentially significant impacts on certain riparian/freshwater marsh/aquatic species and their habitat because land use development will destroy or adversely affect some of the area's wetland habitat, and the Subarea Plan and Permit allow take of Covered Species that utilize such habitat. Furthermore, management activities within the Subarea Preserve may also result in take of riparian/freshwater marsh/aquatic species and might temporarily disturb their habitat (See Section F of Subarea Plan). The potential impact of the Subarea Plan and NCCP Permit on individual riparian/freshwater marsh/aquatic species is more specifically disclosed in: Attachment 1 of this Permit; Table 2, Table 9, and Appendix C of the Subarea Plan; and Section 4 of Volume II of the MHCP Subregional Plan.

Within this group of species, CDFG finds that impacts will be potentially significant on those species that are known to exist within the City. Species known to occur in the Subarea include Cooper's hawk, osprey, American peregrine falcon, southwestern willow flycatcher, white-faced

ibis, least Bell's vireo, and yellow-breasted chat, and these are consequently the species that will be subject to the potentially significant impacts identified above. Harbison's dun skipper is not expected to occur in the Subarea based upon its current known distribution within San Diego County and is therefore unlikely to be adversely affected by implementation of the Subarea Plan and through take authorized in the NCCP Permit. However, this species could be significantly adversely affected if it is present but undetected in the City. As an additional protection for Harbison's dun skipper populations, should any occur with the Subarea, this species has been listed as a narrow endemic species under the MHCP. In addition, the MHCP requires the maintenance of at least 100-foot biological buffers adjacent to occupied Harbison's dun skipper habitat, measured from the outer edge of oak woodland or riparian vegetation (Section 4 of MHCP Volume II). Within this 100-foot buffer, no new development shall be allowed, and the area shall be managed for natural biological values as part of the Preserve system. Likewise, the Subarea Plan (see Section D in Addendum 1) requires that biological buffers of at least 100 feet be maintained adjacent to occupied Harbison's dun skipper habitat, measured from the outer edge of riparian vegetation or oak woodland. Within this 100-foot buffer, no new development shall be allowed, and the area shall be managed for natural biological values as part of the preserve system. Buffers less than 100 feet shall require written concurrence of the USFWS and CDFG within 30 days of receipt of request for written concurrence from the local jurisdiction.

CEQA requirements for quantifying and mitigating project impacts on biological resources include the need for species surveys where potential habitat exists (Section 4.0 of MHCP Volume II). While this requirement applies to all species, it is a condition of coverage (i.e., "As part of the project review process [e.g., CEQA] for individual projects within the MHCP area, a qualified biologist must survey for this species in all potential habitat areas.") for Harbison's dun skipper and Cooper's hawk. Prior to initiating CEQA review, pre-project site visits will be conducted by a qualified biologist in Standards Areas (see Section E.3.B of the Subarea Plan) to ensure that projects comply with the conservation requirements in the Subarea Plan (see Section D). All projects within the Standards Areas will be required to submit a project description and maps that identify: 1) the project's location in relationship to existing conserved habitat within the City; 2) the habitat types and any known occurrence of species in the Subarea Plan and other species of concern in and adjacent to the project area; 3) the expected location, type, and intensity of habitat impacts in the project area; 4) any open space requirement identified for the area under the General Plan; and 5) specific conservation measures to ensure compliance with zone-level and species specific standards. Such baseline information is essential to appropriately evaluate impacts to such habitat, and to apply mitigation ratios in accordance with the functions and values of both the impacted habitat, as well as the mitigation habitat proposed by a project, as discussed in Section D.6 of the Subarea Plan. Therefore, where baseline information does not exist, or may be outdated, surveys will be performed, as appropriate, during the CEQA review process. This will ensure that appropriate mitigation ratios and/or restoration requirements, Narrow Endemics policies, and other species-specific measures, identified in the Subarea Plan and MHCP Subregional Plan, are implemented.

Furthermore, the MHCP requires as a condition of coverage that as part of the project review process (e.g., CEQA) for individual projects within the MHCP area, a qualified biologist possessing a Section 10(a)1(A) research permit for southwestern willow flycatcher and least Bell's vireo must survey all areas containing suitable habitat, using approved survey protocol (Section 4 of MHCP Volume II).

The impact on species listed in the riparian/freshwater marsh/aquatic group in the MHCP Preserve, including the Subarea Preserve, is expected to be small in comparison to impacts outside preserve areas because they will be limited to occasional take and temporary habitat impacts associated with management activities designed to benefit these species and other Covered Species (See Section F of Subarea Plan). CDFG nonetheless concludes that this impact may be potentially significant because management activities can be expected to result in the take of some Covered Species and to disturb, at least temporarily, protected habitat within the MHCP Preserve.

The Subarea Plan estimates that 100 percent of wetland habitats will be conserved (Table 8 of Subarea Plan). To ensure protection or mitigation for any impacts to wetland habitats, the Subarea Plan commits to implement a no net loss of wetlands functions and values policy, and requires that all wetland mitigation be in-kind. Mitigation ratios for wetland impacts are identified in Table 11 of the Subarea Plan. Additional protections to wetland species are derived through the City's Grading Ordinance that will benefit riparian/freshwater marsh/aquatic species by regulating clearing and grubbing of sensitive biological resources to ensure compliance with the Subarea Plan.

Finally, the Subarea Plan and MHCP Subregional Plan will preserve the majority of riparian/freshwater marsh/aquatic habitats within large, interconnected blocks of habitat that will be protected in perpetuity, and this Preserve will be adaptively managed through ASMDs (Section 1.2 of MHCP Volume III, and Section F.2.F and Table 9 of the Subarea Plan) developed for particular locations of the Preserve, as well as requirements in the MHCP's Biological Monitoring and Management Plan (SANDAG and USFWS 2003). Wetland species will benefit from preservation of large interconnected blocks of habitat, adaptive management of preserved habitat to adjust for changes in wetland species and other Covered Species, and mitigation to prevent any net loss of wetland functions and values of impacted wetland habitat. In addition, Cooper's hawk will benefit from the MHCP condition of coverage that preserve areas must include 300-foot biological buffers around nest sites where feasible. The MHCP (Section 4 of Volume II) and Subarea Plan (Section D in Addendum 1) require that biological buffers of at least 100 feet shall be maintained adjacent to occupied southwestern willow flycatcher and least Bell's vireo habitat, measured from the outer edge of riparian vegetation. Within this 100-foot buffer, no new development shall be allowed, and the area shall be managed for natural biological values as part of the preserve system. Yellow-breasted chat will benefit from the MHCP condition of coverage that requires the protection of upland buffers, a minimum of 50 feet and up to 100 feet wide, around riparian habitat. Furthermore, the Subarea Plan requires

minimum 100-foot buffers between development and all preserved habitat for wetlands, and 50-foot buffers between development and all preserved habitat for riparian areas (see Section D.7-11 of Addendum 2). Buffer widths shall be measured from the edge of preserved habitat nearest the development to the closest point of development. For wetlands and riparian areas possessing an unvegetated bank or steep slope (greater than 25%), the buffer shall be measured from the top of the bank or steep slope rather than the edge of habitat, unless there is at least 50 feet between the riparian or wetland area and the toe of the slope. If the toe of the slope is less than 50 feet from the wetland or riparian area, the buffer shall be measured from the top of the slope. The birds within this group of species will benefit from the MHCP (Appendix E of Volume II) and Subarea Plan (Section D in Addendum 1) requirements for restricting or limiting recreational or other activities within 200 feet of important foraging, breeding, and roosting areas, and attenuation measures for activities that generate noise levels greater than 60 dB if occurring within 200 feet of important breeding habitat during the nesting season.

As discussed in Section 5.2 of this permit, American peregrine falcon is a Covered Species, but because it is designated as Fully Protected, take may not be authorized (California Fish and Game Code Sections 3511). Actions taken under the Subarea Plan are not expected to impact this species, and no coverage for direct take of individuals of this species is requested under the Subarea Plan. The MHCP Plan and Subarea Plan will adequately conserve the American peregrine falcon by conserving 100 percent of wetland habitats used for foraging, including critical foraging areas associated with the coastal lagoons, and 75 percent of the species observation points in the Subarea, and by managing preserve areas consistent with the species' needs.

Because osprey nest very close to large water bodies suitable for foraging, it is possible that most suitable nesting habitat will be within the buffer zones for lakes, lagoons, estuaries, and riparian areas. These buffer areas will be conserved along with the associated wetland habitats. The MHCP will adequately conserve white-faced ibis by conserving 100 percent of marsh habitats and managing these habitats to benefit the species. In addition, American peregrine falcon, osprey, and white-faced ibis will benefit from the MHCP (Appendix E of Volume II) and Subarea Plan (Section D in Addendum 1) prohibition on land uses within 200 feet of estuarine areas that would contribute to degraded water quality, changes in surface water or groundwater hydrology, or increased runoff, erosion, and sedimentation.. The potential impact of the Subarea Plan and NCCP Permit on individual riparian/freshwater marsh/aquatic species is more fully disclosed in Attachment 1 of this NCCP Permit.

CDFG finds that its approval of the Subarea Plan and its issuance of the NCCP Permit could result in a significant impact on these riparian/freshwater marsh/aquatic species and their habitats from land use development, other covered activities and from management of the MHCP Preserve, but concludes that this impact will be avoided or mitigated to below a level of significance through implementation of the Subarea Plan and the MHCP Subregional Plan, and compliance with conditions (including for pre-project surveys) of the NCCP Permit. Key to this

finding by CDFG are requirements that a Preserve be established and adaptively managed for the benefit of these species; there be no net loss of wetland functions and values within the MHCP area and Subarea; any wetland habitats that are lost within the Subarea be replaced with in-kind resources; and other impact avoidance, mitigation, and management measures in the Subarea Plan, MHCP Subregional Plan and NCCP Permit be implemented. CDFG's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, monitoring and management program, and species-specific conditions for coverage identified in the MHCP and Subarea Plan (Table 2, Table 9, and Appendix C of the Subarea Plan; Section 4 of Volume II of the MHCP Subregional Plan; and other sources identified in this finding).

Impact 3.5.3

Approval of the Subarea Plan and issuance of the NCCP Permit could result in potentially significant adverse impacts on the following salt marsh species and their habitat: salt marsh skipper (*Panoquina errans*), Belding's savannah sparrow (*Passerculus sandwichensis beldingi*), large-billed savannah sparrow (*Passerculus sandwichensis rostratus*), and light-footed clapper rail (*Rallus longirostris levipes*).

Finding 3.5.3

CDFG finds that changes have been required in, or incorporated into, the Subarea Plan, the MHCP Plan and the NCCP Permit that avoid or mitigate project-related impacts on salt marsh species and their habitat to below a level of significance. **(Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).)**

Explanation 3.5.3: CDFG finds that approval of the Subarea Plan and issuance of the NCCP Permit could result in potentially significant impacts on certain salt marsh species and their habitat because land use development will destroy or adversely affect some of the area's salt marsh habitat, and the Subarea Plan and Permit allow take of Covered Species that utilize the habitat. Furthermore, management activities within the Subarea Preserve may also result in take of salt marsh species and might temporarily disturb their habitat (See Section F of Subarea Plan). The potential impact of the Subarea Plan and NCCP Permit on individual salt marsh species is more specifically disclosed in: Attachment 1 of this Permit; Table 2, Table 9, and Appendix C of the Subarea Plan; and Section 4 of Volume II of the MHCP Subregional Plan.

This species group includes salt marsh skipper, Belding's savannah sparrow, and light-footed clapper rail, all of which are strongly associated with salt marsh vegetation and, except for one known location of Belding's savannah sparrow, are only known to occur within the Subarea in the Buena Vista, Agua Hedionda, and Batiquitos Lagoons, all 100 percent Preserve areas. While these species are unlikely to be adversely affected by implementation of the Subarea Plan and through take authorized in the NCCP Permit, some of these species could be significantly adversely affected if they are present but undetected in salt marsh habitat in the City of Carlsbad outside of 100 percent Preserve areas.

Large-billed savannah sparrow has not been found within the Subarea and is therefore unlikely to be adversely affected by implementation of the Subarea Plan and through take authorized in the NCCP Permit. However, this species could be significantly adversely affected if it is present but undetected in the City of Carlsbad.

The impact on these species within the MHCP Preserve, including the Subarea Preserve, are expected to be small in comparison to impacts outside preserve areas because they will be limited to occasional take and temporary habitat impacts associated with management activities designed to benefit these species and other Covered Species (See Section F of Subarea Plan). CDFG nonetheless concludes that this impact may be potentially significant because management activities can be expected to result in the take of some Covered Species and to disturb, at least temporarily, protected habitat within the MHCP Preserve.

CEQA requirements for quantifying and mitigating project impacts on biological resources include the need for species surveys where potential habitat exists (Section 4.0 of MHCP Volume II). Prior to initiating CEQA review, pre-project site visits will be conducted by a qualified biologist in Standards Areas (see Section E.3.B of the Subarea Plan) to ensure that projects comply with the conservation requirements in the Subarea Plan (see Section D). All projects within the Standards Areas will be required to submit a project description and maps that identify: 1) the project's location in relationship to existing conserved habitat within the City; 2) the habitat types and any known occurrence of species in the Subarea Plan and other species of concern in and adjacent to the project area; 3) the expected location, type, and intensity of habitat impacts in the project area; 4) any open space requirement identified for the area under the General Plan; and 5) specific conservation measures to ensure compliance with zone-level and species specific standards. Such baseline information is essential to appropriately evaluate impacts to such habitat, and to apply mitigation ratios in accordance with the functions and values of both the impacted habitat, as well as the mitigation habitat proposed by a project, as discussed in Section D.6 of the Subarea Plan. Therefore, where baseline information does not exist, or may be outdated, surveys will be performed, as appropriate, during the CEQA review process. This will ensure that appropriate mitigation ratios and/or restoration requirements, Narrow Endemics policies, and other species-specific measures, identified in the Subarea Plan and MHCP Subregional Plan, are implemented.

Furthermore, the MHCP requires as a condition of coverage that as part of the project review process (e.g., CEQA) for individual projects within the MHCP area, a qualified biologist possessing a Section 10(a)1(A) research permit for Belding's savannah sparrow and light-footed clapper rail must survey all areas containing suitable habitat, using approved survey protocol (Section 4 of MHCP Volume II).

The Subarea Plan estimates that 100 percent of wetland habitats will be conserved (Table 8 of Subarea Plan). To ensure protection or mitigation for any impacts to wetland habitats, the Subarea Plan commits to implement a no net loss of wetlands functions and values policy, and requires that

all wetland mitigation be in-kind. Mitigation ratios for salt marsh habitat impacts are identified in Table 11 of the Subarea Plan. The City's Grading Ordinance may benefit salt marsh species by regulating clearing and grubbing of sensitive biological resources to ensure compliance with the Subarea Plan.

Finally, the Subarea Plan and MHCP Subregional Plan will preserve and/or connect salt marsh with large, interconnected blocks of habitat that will be protected in perpetuity, and this Preserve will be adaptively managed through ASMDs (Section 1.2 of MHCP Volume III, and Section F.2.F and Table 9 of the Subarea Plan) developed for particular locations of the Preserve, as well as requirements in the MHCP's Biological Monitoring and Management Plan (SANDAG and USFWS 2003). In addition, these species will benefit from the Subarea Plan requirement for minimum 100-foot buffers between development and all preserved habitat for wetlands (see Section D.7-11 of Addendum 2). Buffer widths shall be measured from the edge of preserved habitat nearest the development to the closest point of development. For wetland areas possessing an unvegetated bank or steep slope (greater than 25%), the buffer shall be measured from the top of the bank or steep slope rather than the edge of habitat, unless there is at least 50 feet between the wetland area and the toe of the slope. If the toe of the slope is less than 50 feet from the wetland area, the buffer shall be measured from the top of the slope. The birds within this group of species will benefit from the MHCP (Appendix E of Volume II) and Subarea Plan (Section D in Addendum 1) requirements for restricting or limiting recreational or other activities within 200 feet of important foraging, breeding, and roosting areas, and attenuation measures for activities that generate noise levels greater than 60 dB if occurring within 200 feet of important breeding habitat during the nesting season.

As discussed in Section 5.2 of this permit, light-footed clapper rail is a Covered Species, but because it is designated as Fully Protected, take may not be authorized (California Fish and Game Code Sections 3511). Actions taken under the Subarea Plan are not expected to impact this species, and no coverage for direct take of individuals of this species is requested under the Subarea Plan. The MHCP Plan and Subarea Plan will adequately conserve light-footed clapper rail by conserving all potential habitat, critical locations, and location points in the Subarea, and by managing preserve areas consistent with species' needs.

Salt marsh species will benefit from preservation of large interconnected blocks of habitat, adaptive management of preserved habitat to adjust for changes in salt marsh species and other Covered Species, and mitigation to prevent any net loss of functions and values of impacted salt marsh habitat. In addition, the MHCP (Appendix E of Volume II) and Subarea Plan (Section D in Addendum 1) prohibit land uses within 200 feet of estuarine areas that would contribute to degraded water quality, changes in surface water or groundwater hydrology, or increased runoff, erosion, and sedimentation.. The mitigation and conservation benefits that individual salt marsh species would derive from the Subarea Plan are more specifically identified in Attachment 1 of this NCCP Permit.

CDFG finds that its approval of the Subarea Plan and its issuance of the NCCP Permit could result in a significant impact on these salt marsh species and their habitat from land use development, other covered activities and from management of the MHCP Preserve, but concludes that this impact will be avoided or mitigated to below a level of significance through implementation of the Subarea Plan and the MHCP Subregional Plan, and compliance with the conditions (including for pre-project surveys) of the NCCP Permit. Key to this finding by CDFG are requirements that a Preserve be established and adaptively managed for the benefit of these species; there be no net loss of wetland functions and values within the MHCP area and Subarea; any salt marsh habitats that are lost within the Subarea be replaced with in-kind resources; and other impact avoidance, mitigation, and management measures in the Subarea Plan, MHCP Subregional Plan and NCCP Permit be implemented. CDFG's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, monitoring and management program, and species-specific conditions for coverage identified in the MHCP and Subarea Plan (Table 2, Table 9, and Appendix C of the Subarea Plan; Section 4 of Volume II of the MHCP Subregional Plan; and other sources identified in this finding).

Impact 3.5.4

Approval of the Subarea Plan and issuance of the NCCP Permit could result in potentially significant adverse impacts on the following coastal bluff and nearshore species and their habitat: Blochman's dudleya (*Dudleya blochmaniae* ssp. *blochmaniae*), Orcutt's spineflower (*Chorizanthe orcuttiana*), cliff spurge (*Euphorbia misera*), western snowy plover (*Charadrius alexandrinus nivosus*), California brown pelican (*Pelecanus occidentalis californicus*), California least tern (*Sterna antillarum browni*), and elegant tern (*Sterna elegans*).

Finding 3.5.4

CDFG finds that changes have been required in, or incorporated into, the Subarea Plan, the MHCP Plan and the NCCP Permit that avoid or mitigate project-related impacts on coastal bluff and nearshore species and their habitat to below a level of significance. (**Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).**)

Explanation 3.5.4: CDFG finds that approval of the Subarea Plan and issuance of the NCCP Permit could result in potentially significant impacts on certain coastal bluff and nearshore species and their habitat because land use development will destroy or adversely affect some of the area's coastal habitat, and the Subarea Plan and Permit allow take of Covered Species that utilize the habitat. Furthermore, approved uses and management activities within the Subarea Preserve may also result in take of coastal bluff and nearshore species and might temporarily disturb their habitat (Section F of Subarea Plan). The potential impact of the Subarea Plan and NCCP Permit on individual coastal bluff and nearshore species is more specifically disclosed in: Attachment 1 of this Permit; Table 2, Table 9, and Appendix C of the Subarea Plan; and Section 4 of Volume II of the MHCP Subregional Plan.

This group of species includes three plant and four animal species commonly associated with coastal bluff and nearshore habitats. Within the coastal bluff and nearshore habitats group, CDFG finds that impacts will be potentially significant on those species, including Blochman's dudleya, that are known to exist within the City. Cliff spurge is only known to occur within the Subarea within the Agua Hedionda Lagoon and adjacent Kelly Ranch conservation area, both 100 percent Preserve areas. Western snowy plover, California brown pelican, California least tern, and elegant tern are strongly associated with coastal bluff and nearshore habitats and are only known to occur within the Subarea in the Buena Vista, Agua Hedionda, and Batiquitos Lagoons, all 100 percent Preserve areas. These four bird species are not expected to make significant use of other upland habitats within the Subarea, but may occasionally fly over or rest on such lands within the Subarea. While these species are unlikely to be adversely affected by implementation of the Subarea Plan and through take authorized in the NCCP Permit, some of these species could be adversely affected if they are present but undetected in coastal bluff and nearshore habitats in the City of Carlsbad outside of 100 percent Preserve areas.

Another coastal bluff and nearshore species covered by the Subarea Plan is Orcutt's spineflower, which has not been found within the Subarea and are therefore unlikely to be adversely affected by implementation of the Subarea Plan and through take authorized in the NCCP Permit. However, this species could be significantly adversely affected if it is present but undetected in the City. As an additional protection for Orcutt's spineflower populations, should any occur with the Subarea, this species has been listed as a narrow endemic species under the MHCP.

Potential impacts on any of these species within the MHCP Preserve, including the Subarea Preserve, are expected to be small in comparison to impacts outside preserve areas because they will be limited to occasional take and temporary habitat impacts associated with management activities designed to benefit these species and other Covered Species (Section F of Subarea Plan). CDFG nonetheless concludes that this impact may be potentially significant because management activities may result in the take of some Covered Species and to disturb, at least temporarily, protected habitat within the MHCP Preserve.

As discussed in Section 5.2 of this permit, California brown pelican and California least tern are Covered Species, but because they are designated as Fully Protected, take may not be authorized (California Fish and Game Code Sections 3511). Actions taken under the Subarea Plan are not expected to impact these species, and no coverage for direct take of individuals of these species is requested under the Subarea Plan. The MHCP Subregional Plan (Section 4 of Volume II) and Subarea Plan provide for the conservation of 100 percent of the roosting and foraging habitat for the brown pelican in the MHCP study area, and no new development of beaches and lagoons is authorized. Similarly, 96 percent of the suitable habitat for and species observation points of the California least tern and 100 percent of critical lagoon habitats and major populations will be conserved, and management directives are required by the MHCP to ensure the protection of the species' nesting sites.

CEQA requirements for quantifying and mitigating project impacts on biological resources include the need for species surveys where potential habitat exists (Section 4.0 of MHCP Volume II). While this requirement applies to all species, it is a condition of coverage (i.e., “As part of the project review process [e.g., CEQA] for individual projects within the MHCP area, a qualified biologist must survey for this species in all potential habitat areas.”) for Orcutt’s spineflower and Blochman’s dudleya. Prior to initiating CEQA review, pre-project site visits will be conducted by a qualified biologist in Standards Areas (see Section E.3.B of the Subarea Plan) to ensure that projects comply with the conservation requirements in the Subarea Plan (see Section D). All projects within the Standards Areas will be required to submit a project description and maps that identify: 1) the project’s location in relationship to existing conserved habitat within the City; 2) the habitat types and any known occurrence of species in the Subarea Plan and other species of concern in and adjacent to the project area; 3) the expected location, type, and intensity of habitat impacts in the project area; 4) any open space requirement identified for the area under the General Plan; and 5) specific conservation measures to ensure compliance with zone-level and species specific standards. Such baseline information is essential to appropriately evaluate impacts to such habitat, and to apply mitigation ratios in accordance with the functions and values of both the impacted habitat, as well as the mitigation habitat proposed by a project, as discussed in Section D.6 of the Subarea Plan. Therefore, where baseline information does not exist, or may be outdated, surveys will be performed, as appropriate, during the CEQA review process. This will ensure that appropriate mitigation ratios and/or restoration requirements, Narrow Endemics policies, and other species-specific measures, identified in the Subarea Plan and MHCP Subregional Plan, are implemented.

The Subarea Plan and MHCP Subregional Plan will preserve habitat in large, interconnected blocks that will be protected in perpetuity, and this Preserve will be adaptively managed through ASMDs (Section 1.2 of MHCP Volume III, and Section F.2.F and Table 9 of the Subarea Plan) developed for particular locations of the Preserve, as well as requirements in the MHCP’s Biological Monitoring and Management Plan (SANDAG and USFWS 2003). Preservation of large interconnected blocks of habitat, and adaptive management of that habitat to adjust for changes in Covered Species, will benefit these species and mitigate the loss of coastal bluff and nearshore species and their habitat. In addition, these species will benefit from the Subarea Plan requirement for minimum 100-foot buffers between development and all preserved habitat for wetlands, and 20-foot buffers between development and all preserved native, upland habitat (see Section D.7-11 of Addendum 2). Buffer widths shall be measured from the edge of preserved habitat nearest the development to the closest point of development. For wetland areas possessing an unvegetated bank or steep slope (greater than 25%), the buffer shall be measured from the top of the bank or steep slope rather than the edge of habitat, unless there is at least 50 feet between the wetland area and the toe of the slope. If the toe of the slope is less than 50 feet from the wetland area, the buffer shall be measured from the top of the slope. The birds within this group of species will benefit from the MHCP (Appendix E of Volume II) and Subarea Plan (Section D in Addendum 1) requirements for restricting or limiting recreational or other activities within 200 feet of important foraging, breeding, and roosting areas, and attenuation measures for

activities that generate noise levels greater than 60 dB if occurring within 200 feet of important breeding habitat during the nesting season.

Additional benefit is provided to the above species through the City's Grading Ordinance by regulating clearing and grubbing of sensitive biological resources to ensure compliance with the Subarea Plan. The potential impact of the Subarea Plan and NCCP Permit on individual coastal bluff and nearshore species is more fully disclosed in Attachment 1 of this NCCP Permit.

CDFG finds that its approval of the Subarea Plan and its issuance of the NCCP Permit could result in a significant impact on these coastal bluff and nearshore species and their habitat from land use development, other covered activities and from management of the MHCP Preserve, but concludes that this impact will be avoided or mitigated to below a level of significance through implementation of the Subarea Plan and the MHCP Subregional Plan, and compliance with the conditions (including for pre-project surveys) of the NCCP Permit. Key to this finding by CDFG are requirements that a Preserve be established and adaptively managed for the benefit of these species; that habitat losses within the MHCP and the Subarea will be limited; that any covered coastal habitat that is lost within the Subarea will be replaced with in-tier habitat consistent with the Subarea Plan and MHCP; and that other impact avoidance, mitigation, and management measures in the Subarea Plan, MHCP Subregional Plan, and NCCP Permit will be implemented. CDFG's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, monitoring and management program, and species-specific conditions for coverage identified in the MHCP and the Subarea Plan (Table 2, Table 9, and Appendix C of the Subarea Plan; Section 4 of Volume II of the MHCP Subregional Plan; and other sources identified in this finding).

CDFG CEQA Findings for Species Coverage Contingent on Other MHCP Subarea Plans Being Permitted and/or Funding for Management of Conserved Areas

Impact 3.5.5

Approval of the Subarea Plan and issuance of the NCCP Permit could result in potentially significant adverse impacts on the following low elevation shrubland species and their habitat: San Diego thorn-mint (*Acanthomintha ilicifolia*), San Diego ambrosia (*Ambrosia pumila*), Wart-stemmed ceanothus (*Ceanothus verrucosus*), Sticky dudleya (*Dudleya viscida*), San Diego barrel cactus (*Ferocactus viridescens*), Del Mar manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia*), Encinitas baccharis (*Baccharis vanessae*), Summer holly (*Comarostaphylis diversifolia* ssp. *diverifolia*), Del Mar Mesa sand aster (*Corethrogyne filaginifolia* var. *linifolia*), and Torrey pine (*Pinus torreyana* ssp. *torreyana*).

Finding 3.5.5

CDFG finds that changes have been required in, or incorporated into, the Subarea Plan, the MHCP Plan, and the NCCP Permit that avoid or mitigate project-related impacts on low elevation shrubland species and their habitat to below a level of significance. (**Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).**)

Explanation 3.5.5 CDFG finds that approval of the Subarea Plan and issuance of the NCCP Permit could result in potentially significant impacts on certain low elevation shrubland species and their habitat because land use development will destroy or adversely affect some of the area's scrub and chaparral habitat, and the Subarea Plan and Permit allow take of Covered Species that utilize such habitats. Furthermore, management activities within the Subarea Preserve may also result in take of low elevation shrubland species and might temporarily disturb their habitat (see Section F of Subarea Plan). The potential impact of the Subarea Plan and NCCP Permit on individual low elevation shrubland species is more specifically disclosed in: Attachment 1 of this NCCP Permit; Table 2, Table 9, and Appendix C of the Subarea Plan; and Section 4 of Volume II of the MHCP Subregional Plan.

This group of species includes ten plant species commonly associated with scrub and chaparral vegetation communities in the coastal lowlands (generally greater than 1,000 feet elevation); however, many of these species may also occur at higher elevations and in other habitat types (e.g., grassland, etc.). Within the low elevation shrubland group, CDFG finds that impacts will be potentially significant on those species that are known to exist within the City. Species found in this area include San Diego thorn-mint, Wart-stemmed ceanothus, Sticky dudleya, San Diego barrel cactus, Del Mar manzanita, Encinitas baccharis, Summer holly, Del Mar Mesa sand aster, and Torrey pine, and these are consequently the species that will be subject to the potentially significant impacts identified above. San Diego thorn-mint, San Diego ambrosia, Del Mar manzanita, Encinitas baccharis, and Del Mar Mesa sand aster have been listed as narrow endemic species under the MHCP, which provides additional protection for populations of these species.

CEQA requirements for quantifying and mitigating project impacts on biological resources include the need for species surveys where potential habitat exists (Section 4.0 of MHCP Volume II). While this requirement applies to all species, it is a condition of coverage (i.e., "As part of the project review process [e.g., CEQA] for individual projects within the MHCP area, a qualified biologist must survey for this species in all potential habitat areas.") for San Diego thorn-mint, San Diego ambrosia, and San Diego barrel cactus. Prior to initiating CEQA review, pre-project site visits will be conducted by a qualified biologist in Standards Areas (see Section E.3.B of the Subarea Plan) to ensure that projects comply with the conservation requirements in the Subarea Plan (see Section D). All projects within the Standards Areas will be required to submit a project description and maps that identify: 1) the project's location in relationship to existing conserved habitat within the City; 2) the habitat types and any known occurrence of species in the Subarea Plan and other species of concern in and adjacent to the project area; 3)

the expected location, type, and intensity of habitat impacts in the project area; 4) any open space requirement identified for the area under the General Plan; and 5) specific conservation measures to ensure compliance with zone-level and species specific standards. Such baseline information is essential to appropriately evaluate impacts to such habitat, and to apply mitigation ratios in accordance with the functions and values of both the impacted habitat, as well as the mitigation habitat proposed by a project, as discussed in Section D.6 of the Subarea Plan. Therefore, where baseline information does not exist, or may be outdated, surveys will be performed, as appropriate, during the CEQA review process. This will ensure that appropriate mitigation ratios and/or restoration requirements, Narrow Endemics policies, and other species-specific measures, identified in the Subarea Plan and MHCP Subregional Plan, are implemented.

The Final EIR/EIS for Threatened and Endangered Species Due to Urban Growth Within the Multiple Habitat Conservation Program Planning Area concludes that coastal sage scrub and chaparral mix are not adequately conserved by the MHCP, but that significant impacts to this vegetation community can be mitigated through the additional conservation of at least 400 to 500 acres of high-quality, contiguous coastal sage scrub, supporting 16 to 23 pairs of gnatcatchers, in the gnatcatcher core conservation area (Section 4.3.4 of MHCP Final EIR/EIS Volume I). The core conservation area is generally located outside of the MHCP boundary, in unincorporated San Diego County, south of San Marcos and east of Encinitas and Carlsbad (the red circle on Figure 3-1 of MHCP Volume I).

The City will mitigate for its significant impact to coastal sage scrub and chaparral mix and the gnatcatcher through off-site conservation of like habitat in the core conservation area. Most major populations of gnatcatchers in the Carlsbad FPA are substantially conserved, except on properties that are already permitted for take. However, major populations of gnatcatchers in central Carlsbad will be only partially conserved, and this will lead to further fragmentation of the population in this area. The partial conservation of this major population is a significant impact on this species; however, the City will mitigate for this impact by acquiring and assuring the management of 307.6 acres of high quality coastal sage scrub in the gnatcatcher core conservation area in the unincorporated area (see Section E.6.A in Subarea Plan). In addition, the City will further mitigate these effects by restoring and enhancing at least 104 acres of coastal sage scrub in the Carlsbad subarea (see MHCP EIR/EIS Section 4.3.3.1).

The impact on species within the MHCP Preserve, including the Subarea Preserve, is expected to be small in comparison to impacts outside preserve areas because they will be limited to occasional take and temporary habitat impacts associated with management activities designed to benefit these species and other Covered Species (Section F of Subarea Plan). CDFG nonetheless concludes that this impact may be potentially significant because management activities may result in the take of some Covered Species and to disturb, at least temporarily, protected habitat within the MHCP Preserve.

CDFG concludes that this impact, while potentially significant, has been mitigated to below a level of significance by the conservation features that have been built into the Subarea Plan and the MHCP Subregional Plan. The Subarea Plan estimated that 2,139 acres of coastal sage scrub (65 percent of Subarea total), 342 acres of southern maritime chaparral (87 percent of Subarea total), and 676 acres of chaparral habitat (70 percent of Subarea total) will be preserved. A combination of habitat-based mitigation and the conservation of known core and/or major populations of species in this low elevation shrubland group is the basis of determining adequate mitigation for potential impacts under the Subarea Plan. The Subarea Plan and MHCP Subregional Plan will preserve habitat in large, interconnected blocks that will be protected in perpetuity, and this Preserve will be adaptively managed through ASMDs (Section 1.2 of MHCP Volume III, and Section F.2.F and Table 9 of the Subarea Plan) developed for particular locations of the Preserve, as well as requirements in the MHCP's Biological Monitoring and Management Plan (SANDAG and USFWS 2003). Preservation of large interconnected blocks of habitat and adaptive management of conserved habitat to adjust for changes in Covered Species will benefit these species and mitigate the loss of low elevation shrubland species and their habitat. In addition, these species will benefit from the Subarea Plan requirement for minimum 20-foot buffers between development and all preserved upland, native habitat (see Section D.7-11 of Addendum 2). Buffer widths shall be measured from the edge of preserved habitat nearest the development to the closest point of development. Additional benefit to these species may be derived through the City's Grading Ordinance which regulates clearing and grubbing of sensitive biological resources to ensure compliance with the Subarea Plan. The mitigation and conservation benefits that individual low elevation shrubland species would derive from the Subarea Plan are more specifically identified in Attachment 1 of this NCCP Permit.

CDFG finds that its approval of the Subarea Plan and its issuance of the NCCP Permit could result in a significant impact on these low elevation shrubland species and their habitat from land use development, other covered activities and from management of the MHCP Preserve, but concludes that this impact will be avoided or mitigated to below a level of significance through implementation of the Subarea Plan and the MHCP Subregional Plan, and compliance with the conditions (including for pre-project surveys) of the NCCP Permit. Key to this finding by CDFG are requirements that a Preserve be established and adaptively managed for the benefit of these species, that any low elevation shrubland habitat that is lost within the Subarea will be replaced with in-tier habitat consistent with the Subarea Plan and MHCP; and, that other impact avoidance, mitigation, and management measures in the Subarea Plan, MHCP Subregional Plan, and NCCP Permit will be implemented. CDFG's findings are based on the overall conservation strategy, monitoring and management program, and species-specific conditions for coverage identified in the MHCP and the Subarea Plan (Table 2, Table 9, and Appendix C of the Subarea Plan; Section 4 of Volume II of the MHCP Subregional Plan; and other sources identified in this finding).

Take authorization for Del Mar manzanita, Encinitas baccharis, Summer holly, Del Mar Mesa sand aster, and Torrey pine is contingent on funding for management of conserved areas. Take authorization for San Diego thorn-mint and wart-stemmed ceanothus is contingent on funding for management of conserved areas and the San Marcos Subarea Plan being permitted. The major populations and critical locations of San Diego thorn-mint in San Marcos must be conserved at a level consistent with the critical location policy and managed as part of the preserve system. The major population in the Mount Whitney-Double Peak area of San Marcos must be conserved at a minimum of 70 percent of the existing population. Take authorization for San Diego ambrosia and sticky dudleya is contingent on the Oceanside Subarea Plan being permitted. The major population and critical location of San Diego ambrosia near Mission Boulevard in east Oceanside must be conserved at a level consistent with the critical location policy and managed as part of the preserve system. The major population and critical location of sticky dudleya at the San Luis Rey River in Oceanside must be conserved at a level consistent with the critical location policy and managed as part of the preserve system. Take authorization for San Diego barrel cactus is contingent on the Encinitas Subarea Plan being permitted. The major population and critical location of San Diego barrel cactus at Lux Canyon in Encinitas must be conserved at a level consistent with the critical location policy and managed as part of the preserve system.

Impact 3.5.6

Approval of the Subarea Plan and issuance of the NCCP Permit could result in potentially significant adverse impacts on the following oak woodland species and its habitat: Engelmann oak (*Quercus engelmannii*).

Finding 3.5.6

CDFG finds that changes have been required in, or incorporated into, the Subarea Plan, the MHCP Plan, and the NCCP Permit that avoid or mitigate project-related impacts on Engelmann oak and its habitat to below a level of significance. (**Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).**)

Explanation 3.5.6

CDFG finds that approval of the Subarea Plan and issuance of the NCCP Permit could result in potentially significant impacts on Engelmann oak and its habitat because land use development will destroy or adversely affect some of the area's oak woodland habitat, and the Subarea Plan and Permit allow take of Covered Species that utilize such habitats. Furthermore, management activities within the Subarea Preserve may also result in take of Engelmann oak and might temporarily disturb its habitat (see Section F of Subarea Plan). The potential impact of the Subarea Plan and NCCP Permit on Engelmann oak is more specifically disclosed in: Attachment 1 of this NCCP Permit; Table 2, Table 9, and Appendix C of the Subarea Plan; and Section 4 of Volume II of the MHCP Subregional Plan.

Engelmann oak is commonly associated with chaparral (see Finding 3.5.6) and oak woodland vegetation communities. Within the oak woodland group, CDFG finds that impacts will be

potentially significant on those species that are known to exist within the City. Engelmann oak is found in this area, and this species will be subject to the potentially significant impacts identified above.

CEQA requirements for quantifying and mitigating project impacts on biological resources include the need for species surveys where potential habitat exists (Section 4.0 of MHCP Volume II). Prior to initiating CEQA review, pre-project site visits will be conducted by a qualified biologist in Standards Areas (see Section E.3.B of the Subarea Plan) to ensure that projects comply with the conservation requirements in the Subarea Plan (see Section D). All projects within the Standards Areas will be required to submit a project description and maps that identify: 1) the project's location in relationship to existing conserved habitat within the City; 2) the habitat types and any known occurrence of species in the Subarea Plan and other species of concern in and adjacent to the project area; 3) the expected location, type, and intensity of habitat impacts in the project area; 4) any open space requirement identified for the area under the General Plan; and 5) specific conservation measures to ensure compliance with zone-level and species specific standards. Such baseline information is essential to appropriately evaluate impacts to such habitat, and to apply mitigation ratios in accordance with the functions and values of both the impacted habitat, as well as the mitigation habitat proposed by a project, as discussed in Section D.6 of the Subarea Plan. Therefore, where baseline information does not exist, or may be outdated, surveys will be performed, as appropriate, during the CEQA review process. This will ensure that appropriate mitigation ratios and/or restoration requirements, Narrow Endemics policies, and other species-specific measures, identified in the Subarea Plan and MHCP Subregional Plan, are implemented.

The impact on species within the MHCP Preserve, including the Subarea Preserve, is expected to be small in comparison to impacts outside preserve areas because they will be limited to occasional take and temporary habitat impacts associated with management activities designed to benefit this species and other Covered Species (Section F of Subarea Plan). CDFG nonetheless concludes that this impact may be potentially significant because management activities may result in the take of some Covered Species and to disturb, at least temporarily, protected habitat within the MHCP Preserve.

CDFG concludes that this impact, while potentially significant, has been mitigated to below a level of significance by the conservation features that have been built into the Subarea Plan and the MHCP Subregional Plan. The Subarea Plan and MHCP Subregional Plan will preserve habitat in large, interconnected blocks that will be protected in perpetuity, and this Preserve will be adaptively managed through ASMDs (Section 1.2 of MHCP Volume III, and Section F.2.F and Table 9 of the Subarea Plan) developed for particular locations of the Preserve, as well as requirements in the MHCP's Biological Monitoring and Management Plan (SANDAG and USFWS 2003). Preservation of large interconnected blocks of habitat and adaptive management of conserved habitat to adjust for changes in Covered Species will benefit and mitigate the loss of

this oak woodland species and its habitat. In addition, this species will benefit from the Subarea Plan requirement for minimum 20-foot buffers between development and all preserved upland, native habitat (see Section D.7-11 of Addendum 2). Buffer widths shall be measured from the edge of preserved habitat nearest the development to the closest point of development. Additional benefit to this species may be derived through the City's Grading Ordinance which regulates clearing and grubbing of sensitive biological resources to ensure compliance with the Subarea Plan. The mitigation and conservation benefits that this oak woodland species would derive from the Subarea Plan are more specifically identified in Attachment 1 of this NCCP Permit.

CDFG finds that its approval of the Subarea Plan and its issuance of the NCCP Permit could result in a significant impact on this oak woodland species and its habitat from land use development, other covered activities and from management of the MHCP Preserve, but concludes that this impact will be avoided or mitigated to below a level of significance through implementation of the Subarea Plan and the MHCP Subregional Plan, and compliance with the conditions (including for pre-project surveys) of the NCCP Permit. Key to this finding by CDFG are requirements that a Preserve be established and adaptively managed for the benefit of this species, that any oak woodland habitat that is lost within the Subarea will be replaced with in-tier habitat consistent with the Subarea Plan and MHCP; and, that other impact avoidance, mitigation, and management measures in the Subarea Plan, MHCP Subregional Plan, and NCCP Permit will be implemented. CDFG's findings are based on the overall conservation strategy, monitoring and management program, and species-specific conditions for coverage identified in the MHCP and the Subarea Plan (Table 2, Table 9, and Appendix C of the Subarea Plan; Section 4 of Volume II of the MHCP Subregional Plan; and other sources identified in this finding).

In order for the City to get take authorization for Engelmann oak, the City of Escondido Subarea Plan must be permitted in order to ensure that all critical locations of this species in Escondido are substantially conserved in accordance with the critical location policy and managed as part of the Preserve system.

Impact 3.5.7

Approval of the Subarea Plan and issuance of the NCCP Permit could result in potentially significant adverse impacts on the following clay microhabitat species and its habitat: thread-leaved brodiaea (*Brodiaea filifolia*).

Finding 3.5.7

CDFG finds that changes have been required in, or incorporated into, the Subarea Plan, the MSCP Plan and the NCCP Permit that avoid or mitigate project-related impacts on this clay microhabitat species and its habitat to below a level of significance. **(Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).)**

Explanation 3.5.7: CDFG finds that approval of the Subarea Plan and issuance of the NCCP Permit could result in potentially significant impacts on thread-leaved brodiaea, a narrow endemic, clay microhabitat species, and its habitat because land use development will destroy or adversely affect some of the area's clay soil habitat, and the Subarea Plan and Permit allow take of Covered Species that utilize the habitat. Furthermore, management activities within the Subarea Preserve may also result in take of this clay microhabitat species and might temporarily disturb their habitat (See Section F of Subarea Plan). The potential impact of the Subarea Plan and NCCP Permit on this clay microhabitat species is more specifically disclosed in: Attachment 1 of this Permit; Table 2, Table 9, and Appendix C of the Subarea Plan; and Section 4 of Volume II of the MHCP Subregional Plan.

CDFG finds that impacts will be potentially significant on this species, which is known to exist within the City. The impact on this species within the MHCP Preserve, including the Subarea Preserve, is expected to be small in comparison to impacts outside preserve areas because they will be limited to occasional take and temporary habitat impacts associated with management activities designed to benefit this Covered Species (See Section F of Subarea Plan). CDFG nonetheless concludes that this impact may be potentially significant because management activities can be expected to result in the take of this Covered Species and to disturb, at least temporarily, protected habitat within the MHCP Preserve.

Clay microhabitat species are comprised of several plant species which are highly restricted to a particular habitat/soil affinity and other specialized conditions, resulting in these species having, generally, very limited and localized populations within San Diego County and the MHCP in particular. They are not broadly distributed within a particular habitat type, and typically do not occur where there has been a moderate or higher level of disturbance, or where non-native species dominate the substrate. CDFG concludes that potential impacts, while potentially significant, have been mitigated to below a level of significance by the conservation features that have been built into the Subarea Plan and the MHCP Subregional Plan (Section 4 of MHCP Volume II). MHCP coverage for this species has largely been achieved through the conservation of major populations and through defining this species as a narrow endemic, ensuring a high level of conservation for any subsequently identified populations (see Attachment 1 of this Permit for further discussion of mitigation and conservation benefits for this species). Also, this clay soil associate is often found peripherally to vernal pools, and may therefore benefit by conservation and protections of vernal pool habitat through the Subarea Plan.

CEQA requirements for quantifying and mitigating project impacts on biological resources include the need for species surveys where potential habitat exists (Section 4.0 of MHCP Volume II). Prior to initiating CEQA review, pre-project site visits will be conducted by a qualified biologist in Standards Areas (see Section E.3.B of the Subarea Plan) to ensure that projects comply with the conservation requirements in the Subarea Plan (see Section D). All projects within the Standards Areas will be required to submit a project description and maps that identify: 1) the project's location in relationship to existing conserved habitat within the City; 2)

the habitat types and any known occurrence of species in the Subarea Plan and other species of concern in and adjacent to the project area; 3) the expected location, type, and intensity of habitat impacts in the project area; 4) any open space requirement identified for the area under the General Plan; and 5) specific conservation measures to ensure compliance with zone-level and species specific standards. Such baseline information is essential to appropriately evaluate impacts to such habitat, and to apply mitigation ratios in accordance with the functions and values of both the impacted habitat, as well as the mitigation habitat proposed by a project, as discussed in Section D.6 of the Subarea Plan. Therefore, where baseline information does not exist, or may be outdated, surveys will be performed, as appropriate, during the CEQA review process. This will ensure that appropriate mitigation ratios and/or restoration requirements, Narrow Endemics policies, and other species-specific measures, identified in the Subarea Plan and MHCP Subregional Plan, are implemented.

Finally, the Subarea Plan and MHCP Subregional Plan will preserve populations of clay microhabitat species in large, interconnected blocks of habitat that will be protected in perpetuity, and this Preserve will be adaptively managed through ASMDs (Section 1.2 of MHCP Volume III, and Section F.2.F and Table 9 of the Subarea Plan) developed for particular locations of the Preserve, as well as requirements in the MHCP's Biological Monitoring and Management Plan (SANDAG and USFWS 2003). ASMDs for clay microhabitat species generally require measures to protect against detrimental edge effects and to maintain surrounding habitat for pollinators. Preservation of large interconnected blocks of habitat, and adaptive management of that habitat to adjust for changes in clay microhabitat species and other Covered Species, will benefit these species and mitigate the loss of a small percentage of existing clay microhabitat and thread-leaved brodiaea. In addition, this species will benefit from the Subarea Plan requirement for minimum 20-foot buffers between development and all preserved upland, native habitat (see Section D.7-11 of Addendum 2). Buffer widths shall be measured from the edge of preserved habitat nearest the development to the closest point of development.

CDFG finds that its approval of the Subarea Plan and its issuance of the NCCP Permit could result in a significant impact on this clay microhabitat species and its habitat from land use development, other covered activities and from management of the MHCP Preserve, but concludes that this impact will be avoided or mitigated to below a level of significance through implementation of the Subarea Plan and the MHCP Subregional Plan, and compliance with the conditions (including for pre-project surveys) of the NCCP Permit. Key to this finding by CDFG are requirements that a Preserve be established and adaptively managed for the benefit of this species, and that other impact avoidance, mitigation and management measures in the Subarea Plan, MHCP Subregional Plan and NCCP Permit will be implemented. CDFG's findings are based on the overall conservation strategy, monitoring and management program, and species-specific conditions for coverage identified in the MHCP and the Subarea Plan (Table 2, Table 9, and Appendix C of the Subarea Plan; Section 4 of Volume II of the MHCP Subregional Plan; and other sources identified in this finding).

Take authorization for thread-leaved brodiaea is contingent on funding for management of conserved areas.

Impact 3.5.8

Approval of the Subarea Plan and issuance of the NCCP Permit could result in potentially significant adverse impacts on the following vernal pool species and their habitat: San Diego button-celery (*Eryngium aristulatum* var. *parishii*), little mouseltail (*Myosurus minimus* ssp. *apus*), spreading navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*), Riverside fairy shrimp (*Streptocephalus woottoni*), and San Diego fairy shrimp (*Branchinecta sandiegonensis*).

Finding 3.5.8

CDFG finds that changes have been required in, or incorporated into, the Subarea Plan, the MSCP Plan and the NCCP Permit that avoid or mitigate project-related impacts on vernal pool species and their habitat to below a level of significance. **(Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).)**

Explanation 3.5.8: CDFG finds that approval of the Subarea Plan and issuance of the NCCP Permit could result in potentially significant impacts on certain vernal pool species and their habitat because land use development will destroy or adversely affect some of the area's wetland habitat, and the Subarea Plan and Permit allow take of Covered Species that utilize such habitat. Furthermore, management activities within the Subarea Preserve may also result in take of vernal pool species and might temporarily disturb their habitat (See Section F of Subarea Plan). The potential impact of the Subarea Plan and NCCP Permit on individual vernal pool species is more specifically disclosed in: Attachment 1 of this Permit; Table 2, Table 9, and Appendix C of the Subarea Plan; and Section 4 of Volume II of the MHCP Subregional Plan.

Within this group of species, CDFG finds that impacts will be potentially significant on those species that are known to exist within the City. Species known to occur in the Subarea include San Diego button-celery, little mouseltail, spreading navarretia, California Orcutt grass, Riverside fairy shrimp, and San Diego fairy shrimp. Major and critical populations of all of these species are only known to occur in the Subarea in the Poinsettia Lane vernal pools that are 100 percent conserved. The MHCP requires that all vernal pools and their watersheds within the MHCP study area must be 100 percent conserved, regardless of occupancy by these species and regardless of location inside or outside of the FPA, unless doing so would remove all economic uses of a property. Therefore, it is unlikely that these species will be adversely affected by implementation of the Subarea Plan and through take authorized in the NCCP Permit. However, these species could be significantly adversely affected if they are present but undetected in the City. As additional protection for populations of these species, they have been listed as a narrow endemic and obligate wetland species under the MHCP.

CEQA requirements for quantifying and mitigating project impacts on biological resources include the need for species surveys where potential habitat exists (Section 4.0 of MHCP Volume II). Prior to initiating CEQA review, pre-project site visits will be conducted by a qualified biologist in Standards Areas (see Section E.3.B of the Subarea Plan) to ensure that projects comply with the conservation requirements in the Subarea Plan (see Section D). All projects within the Standards Areas will be required to submit a project description and maps that identify: 1) the project's location in relationship to existing conserved habitat within the City; 2) the habitat types and any known occurrence of species in the Subarea Plan and other species of concern in and adjacent to the project area; 3) the expected location, type, and intensity of habitat impacts in the project area; 4) any open space requirement identified for the area under the General Plan; and 5) specific conservation measures to ensure compliance with zone-level and species specific standards. Such baseline information is essential to appropriately evaluate impacts to such habitat, and to apply mitigation ratios in accordance with the functions and values of both the impacted habitat, as well as the mitigation habitat proposed by a project, as discussed in Section D.6 of the Subarea Plan. Therefore, where baseline information does not exist, or may be outdated, surveys will be performed, as appropriate, during the CEQA review process. This will ensure that appropriate mitigation ratios and/or restoration requirements, Narrow Endemics policies, and other species-specific measures, identified in the Subarea Plan and MHCP Subregional Plan, are implemented.

Furthermore, the MHCP requires as a condition of coverage that as part of the project review process (e.g., CEQA) for individual projects within the MHCP area, a qualified biologist possessing a Section 10(a)1(A) research permit for San Diego fairy shrimp and Riverside fairy shrimp must survey all areas containing pools, using approved survey protocol (Section 4 of MHCP Volume II). Surveys shall be conducted when impacts could occur as a result of direct or indirect impacts by placement of a project in or adjacent to suitable habitat. Suitable habitat includes vernal pools as well as any other pools (natural or unnatural) that have potential to support fairy shrimp based on their physical, chemical, and biological attributes.

The impact on species listed in the vernal pool group in the MHCP Preserve, including the Subarea Preserve, is expected to be small in comparison to impacts outside Preserve areas because they will be limited to occasional take and temporary habitat impacts associated with management activities designed to benefit these species and other Covered Species (See Section F of Subarea Plan). CDFG nonetheless concludes that this impact may be potentially significant because management activities can be expected to result in the take of some Covered Species and to disturb, at least temporarily, protected habitat within the MHCP Preserve.

The Subarea Plan estimates that 100 percent of wetland habitats will be conserved (Table 8 of Subarea Plan). To ensure protection or mitigation for any impacts to wetland habitats, the Subarea Plan commits to implement a no net loss of wetlands functions and values policy, and requires that all wetland mitigation be in-kind. Mitigation ratios for wetland impacts are identified in Table 11 of the Subarea Plan. Additional protections to wetland species are derived through the City's

Grading Ordinance that will benefit vernal pool species by regulating clearing and grubbing of sensitive biological resources to ensure compliance with the Subarea Plan.

Finally, the Subarea Plan and MHCP Subregional Plan will preserve the majority of vernal pool habitat within large, interconnected blocks of habitat that will be protected in perpetuity, and this Preserve will be adaptively managed through ASMDs (Section 1.2 of MHCP Volume III, and Section F.2.F and Table 9 of the Subarea Plan) developed for particular locations of the Preserve, as well as requirements in the MHCP's Biological Monitoring and Management Plan (SANDAG and USFWS 2003). Wetland species will benefit from preservation of large interconnected blocks of habitat, adaptive management of preserved habitat to adjust for changes in wetland species and other Covered Species, and mitigation to prevent any net loss of wetland functions and values of impacted wetland habitat. In addition, these species will benefit from the Subarea Plan requirement for minimum 100-foot buffers between development and all preserved habitat for wetlands (see Section D.7-11 of Addendum 2). Buffer widths shall be measured from the edge of preserved habitat nearest the development to the closest point of development. The potential impact of the Subarea Plan and NCCP Permit on individual vernal pool species is more fully disclosed in Attachment 1 of this NCCP Permit.

CDFG finds that its approval of the Subarea Plan and its issuance of the NCCP Permit could result in a significant impact on these vernal pool species and their habitats from land use development, other covered activities and from management of the MHCP Preserve, but concludes that this impact will be avoided or mitigated to below a level of significance through implementation of the Subarea Plan and the MHCP Subregional Plan, and compliance with conditions (including for pre-project surveys) of the NCCP Permit. Key to this finding by CDFG are requirements that a Preserve be established and adaptively managed for the benefit of these species; there be no net loss of wetland functions and values within the MHCP area and Subarea; any wetland habitats that are lost within the Subarea be replaced with in-kind resources; and other impact avoidance, mitigation, and management measures in the Subarea Plan, MHCP Subregional Plan and NCCP Permit be implemented. CDFG's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, monitoring and management program, and species-specific conditions for coverage identified in the MHCP and Subarea Plan (Table 2, Table 9, and Appendix C of the Subarea Plan; Section 4 of Volume II of the MHCP Subregional Plan; and other sources identified in this finding).

Take authorization for the species in this group is contingent on funding for management of conserved areas, and the City receiving legal control over the protection, management, and monitoring of the vernal pools adjacent to the Poinsettia Train Station in Carlsbad.

Impact 3.5.9

Approval of the Subarea Plan and issuance of the NCCP Permit could result in potentially significant adverse impacts on the following alkali marsh species and its habitat: San Diego marsh elder (*Iva hayesiana*).

Finding 3.5.9

CDFG finds that changes have been required in, or incorporated into, the Subarea Plan, the MHCP Plan and the NCCP Permit that avoid or mitigate project-related impacts on alkali marsh species and their habitat to below a level of significance. **(Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).)**

Explanation 3.5.9: CDFG finds that approval of the Subarea Plan and issuance of the NCCP Permit could result in potentially significant impacts on San Diego marsh elder, an alkali marsh species and its habitat because land use development will destroy or adversely affect some of the area's alkali marsh habitat, and the Subarea Plan and Permit allow take of Covered Species that utilize the habitat. Furthermore, management activities within the Subarea Preserve may also result in take of San Diego marsh elder and might temporarily disturb its habitat (See Section F of Subarea Plan). The potential impact of the Subarea Plan and NCCP Permit on San Diego marsh elder is more specifically disclosed in: Attachment 1 of this Permit; Table 2, Table 9, and Appendix C of the Subarea Plan; and Section 4 of Volume II of the MHCP Subregional Plan.

The impact on this species within the MHCP Preserve, including the Subarea Preserve, are expected to be small in comparison to impacts outside preserve areas because they will be limited to occasional take and temporary habitat impacts associated with management activities designed to benefit this species and other Covered Species (See Section F of Subarea Plan). CDFG nonetheless concludes that this impact may be potentially significant because management activities can be expected to result in the take of some Covered Species and to disturb, at least temporarily, protected habitat within the MHCP Preserve.

CEQA requirements for quantifying and mitigating project impacts on biological resources include the need for species surveys where potential habitat exists (Section 4.0 of MHCP Volume II). Prior to initiating CEQA review, pre-project site visits will be conducted by a qualified biologist in Standards Areas (see Section E.3.B of the Subarea Plan) to ensure that projects comply with the conservation requirements in the Subarea Plan (see Section D). All projects within the Standards Areas will be required to submit a project description and maps that identify: 1) the project's location in relationship to existing conserved habitat within the City; 2) the habitat types and any known occurrence of species in the Subarea Plan and other species of concern in and adjacent to the project area; 3) the expected location, type, and intensity of habitat impacts in the project area; 4) any open space requirement identified for the area under the General Plan; and 5) specific conservation measures to ensure compliance with zone-level and species specific standards. Such baseline information is essential to appropriately evaluate impacts to such habitat, and to apply mitigation ratios in accordance with the functions and values of both the impacted habitat, as well as the mitigation habitat proposed by a project, as discussed in Section D.6 of the Subarea Plan. Therefore, where baseline information does not exist, or may be outdated, surveys will be performed, as appropriate, during the CEQA review process. This will ensure that appropriate mitigation ratios and/or restoration requirements,

Narrow Endemics policies, and other species-specific measures, identified in the Subarea Plan and MHCP Subregional Plan, are implemented.

The Subarea Plan estimates that 100 percent of wetland habitats will be conserved (Table 8 of Subarea Plan). To ensure protection or mitigation for any impacts to wetland habitats, the Subarea Plan commits to implement a no net loss of wetlands functions and values policy, and requires that all wetland mitigation be in-kind. Mitigation ratios for alkali marsh habitat impacts are identified in Table 11 of the Subarea Plan. The City's Grading Ordinance may benefit alkali marsh species by regulating clearing and grubbing of sensitive biological resources to ensure compliance with the Subarea Plan.

Finally, the Subarea Plan and MHCP Subregional Plan will preserve and/or connect alkali marsh with large, interconnected blocks of habitat that will be protected in perpetuity, and this Preserve will be adaptively managed through ASMDs (Section 1.2 of MHCP Volume III, and Section F.2.F and Table 9 of the Subarea Plan) developed for particular locations of the Preserve, as well as requirements in the MHCP's Biological Monitoring and Management Plan (SANDAG and USFWS 2003).

Alkali marsh species will benefit from preservation of large interconnected blocks of habitat, adaptive management of preserved habitat to adjust for changes in alkali marsh species and other Covered Species, and mitigation to prevent any net loss of functions and values of impacted alkali marsh habitat. In addition, the MHCP (Appendix E of Volume II) and Subarea Plan (Section D in Addendum 1) prohibit land uses within 200 feet of estuarine areas that would contribute to degraded water quality, changes in surface water or groundwater hydrology, or increased runoff, erosion, and sedimentation. The mitigation and conservation benefits that individual alkali marsh species would derive from the Subarea Plan are more specifically identified in Attachment 1 of this NCCP Permit.

CDFG finds that its approval of the Subarea Plan and its issuance of the NCCP Permit could result in a significant impact on this alkali marsh species and its habitat from land use development, other covered activities and from management of the MHCP Preserve, but concludes that this impact will be avoided or mitigated to below a level of significance through implementation of the Subarea Plan and the MHCP Subregional Plan, and compliance with the conditions (including for pre-project surveys) of the NCCP Permit. Key to this finding by CDFG are requirements that a Preserve be established and adaptively managed for the benefit of this species; there be no net loss of wetland functions and values within the MHCP area and Subarea; any alkali marsh habitats that are lost within the Subarea be replaced with in-kind resources; and other impact avoidance, mitigation, and management measures in the Subarea Plan, MHCP Subregional Plan and NCCP Permit be implemented. CDFG's findings are based on the overall conservation strategy, species-specific minimization and avoidance measures, monitoring and management program, and species-specific conditions for coverage identified in the MHCP and

Subarea Plan (Table 2, Table 9, and Appendix C of the Subarea Plan; Section 4 of Volume II of the MHCP Subregional Plan; and other sources identified in this finding).

For San Diego marsh elder, take authorization is also contingent on the San Marcos Subarea Plan being permitted. The major population and critical location of San Diego marsh elder along Encinitas Creek in San Marcos must be conserved in accordance with wetland and critical location policies and managed as part of the preserve system.

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 City has prepared the Mitigation and Implementing Agreement Monitoring Program (MIAMP), dated November 2004, to serve the needs of both the City and CDFG to ensure that the Subarea 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 City's MIAMP and determining that this document meets CDFG's needs with respect to implementation of the Subarea Plan, CDFG is adopting the MIAMP 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 to the species included in this NCCP Permit for the Subarea Plan.¹ 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

¹ Species not proposed for take coverage still benefit from the natural community planning approach.

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 approval of the Subarea Plan are mitigated to below a level of significance under CEQA. As a result, 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 Subarea 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. In addition, NCCPs that are governed solely by the NCCPA as it read on December 31, 2001 (*see* § 2830, subs. (a) and (b)) must comply with guidelines adopted by CDFG for natural community conservation planning within the Coastal Sage Scrub Planning Area. As described above in Section 1.3, the Subarea Plan was developed as an element of the MHCP, the Subarea Plan must necessarily be analyzed with reference to and in the context of the previously approved MHCP. Therefore, the term “Subarea Plan” as used in these findings refers not only to the Subarea Plan itself but also to those portions of the MHCP Subregional Plan that relate to and provide context to the Subarea Plan.

4.1 NCCPA

As described above in Section 1.1, the NCCPA was significantly revised in 2002 with enactment of 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 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 Subarea Plan meets all of the criteria in Section 2830, subdivision (b)(3) for “grandfathering,” which means the Subarea Plan must be approved and implemented pursuant to the NCCPA as it existed on December 31, 2001.

Explanation 4.1.1 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 the NCCPA of 2002. 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. The statute goes so far as to require that certain grandfathered plans be approved and implemented solely by the NCCPA as it existed on December 31, 2001 (§ 2830, subds. (a) and (b)).

In connection with the gnatcatcher listing and NCCP program, the City of Carlsbad entered into a memorandum of agreement (MOA) with USFWS and CDFG in 1991 and signed a NCCP enrollment agreement with the California Resources Agency in 1992. The Subarea Plan specifically meets the Fish and Game Code Section 2830, subdivision (b)(3) because it was prepared pursuant to the NCCP enrollment agreement. The MOA and NCCP enrollment agreement expressed the City of Carlsbad’s intention to complete the HMP as part of its General Plan and, in the interim, to work cooperatively with USFWS and CDFG to address the impacts of individual projects on sensitive habitats such as coastal sage scrub. The 1992 agreement enrolls the City of Carlsbad in the NCCP program as an “Ongoing Multi-Species Plan” as defined in the NCCP process guidelines, (i.e., as a pre-existing conservation program whereby the objectives of the NCCP program can be substantially achieved). The agreement was supplemented in 1993 to clarify that the HMP is a Subarea Plan within the MHCP. This Subarea Plan must therefore be evaluated, authorized, and implemented pursuant to the NCCPA as it existed on December 31, 2001. Applicable standards include former sections of the NCCPA as they existed on that date and relevant NCCP guidelines that were in effect on that date.

4.2 Pre-2002 Statutory Standards

CDFG makes the following findings regarding the Subarea Plan’s compliance with statutory provisions in the NCCPA as they existed on December 31, 2001:

Finding 4.2.1

CDFG finds that the Subarea Plan addresses wildlife conservation on a regional or area-wide scale, as required by former Section 2805, subdivision (a).

Explanation 4.2.1: As described above, the MHCP is a comprehensive habitat conservation planning program that addresses multiple species habitat needs and the preservation of native vegetation communities for 175 square miles (111,908 acres) in northwestern San Diego County.

The Subarea encompasses 24,570 acres within the MHCP area. The strategy is to establish a preserve system of approximately 6,400 acres of the approximately 8,800 acres of remaining habitat in the City. The strategy also includes participation in the conveyance of lands in the MHCP core area. The preserve system is intended to provide adequate conservation and management specifically for the species listed on the Subarea Plan species list, as well as for targeted natural communities.

As described and analyzed in the MHCP Subregional Plan and the Subarea Plan, the Implementing Agreement, the mitigated negative declaration for the draft Subarea Plan, the negative declaration for the Second Addendum to the Subarea Plan and Local Coastal Plan Amendment, the Final Environmental Impact Report/Final Environmental Impact Statement (EIR/EIS) for the MHCP Subregional Plan, and the City's Addendum to the Final EIR/EIS, the MHCP Plan and the Subarea Plan address the protection and conservation of wildlife on a regional scale.

Finding 4.2.2	CDFG finds that the Subarea Plan protects and perpetuates wildlife diversity, as required by former Section 2805, subdivision (a).
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Explanation 4.2.2: The MHCP Plan and Subarea Plan provide comprehensive management and conservation of the subregion's multiple wildlife species including but not limited to those species listed pursuant to the CESA. Consistent with the subregional MHCP framework for preserve management, the MHCP Plan and Subarea Plan identify eight (8) vegetation communities targeted for preservation and management. Management of these Preserve areas, as identified in the Subarea Plan and consistent with Table 3-5 of the MHCP Plan (Volume I), and Sections 11 and 13 of the Implementing Agreement, provide species and site-specific land use and management guidelines to ensure that the biological values are maintained in perpetuity. Table 4.3-5 of the Final EIR/EIS provides the evaluation for species covered under the MHCP Plan and indicates the number and percentage of major populations conserved. The permanent protection and management of these habitats will contribute to the long-term viability of 43 plant and wildlife species within the MHCP subregion.

The MHCP Plan and Subarea Plan provide for the assembly of a comprehensive Preserve area consistent with the tenets of reserve design of the CSS NCCP Guidelines which promote biodiversity, provide for no net loss of habitat value from the present, taking into account management and enhancement. The City will revise, adopt, and implement zoning ordinances and resource protection regulations consistent with the MHCP subregional plan, Subarea Plan, and Implementing Agreement in order to achieve the conservation targets set forth in the Subarea Plan. The City commits to permanently preserve, in accordance with Section 11.1 of the Implementing Agreement, approximately 6,786 acres of habitat in the City and MHCP Core Area parcels. As identified in Table 8 of the Subarea Plan, implementation of the Subarea Plan will result in the preservation of 65 percent of the remaining habitat in the City, including 65 percent of the remaining coastal sage scrub habitat. By adding other land to the City's Preserve system

(e.g., disturbed habitat to be restored) and creating a preserve system of 6,478 acres, the overall conservation level is 74 percent. When adjusted for the existing Fieldstone HCP take permit, 71 percent of the remaining habitat and 69 percent of the coastal sage scrub habitat is preserved, and the actual conservation level is increased to 78 percent. Table 8 of the Subarea Plan and Table 4.3-4 of the EIR/EIS specify the approximate amount and location of acreage that will be permanently conserved for each listed vegetation community within the Subarea Plan and MHCP Plan, respectively.

The City has committed to a comprehensive, funded, adaptive management program that provides a framework plan to ensure the needs of species and associated habitats are met. A short and long-term funding mechanism for local and regional costs for acquiring, managing, and monitoring private lands within the FPA identifies a range of sources to satisfy the obligations (Section E-6 of the Subarea Plan, Section 14.0 of the Implementing Agreement, Section 7 of the MHCP Plan, and Section 2.1.2 of EIR/EIS.) These funding mechanisms are intended to ensure that the City will meet the maintenance, management, and monitoring requirements of Section F of the Subarea Plan, as well as Planned Responses to Changed Circumstances discussed in Section G-2 of the Subarea Plan and Exhibit B in the Implementing Agreement. In addition, although a regional funding source is not required in order to implement the Subarea Plan, the City has agreed to support and participate with other local jurisdictions in efforts to secure a regional funding source consistent with the MHCP Subregional Plan. If regional funds are approved, an equitable portion of such funds will be made available to the City to off-set anticipated implementation costs.

The City of Carlsbad will participate in an ongoing monitoring/research program which addresses each of the 6 elements of the CSS NCCP Guidelines "research agenda." (Conservation Guidelines, Section 3(b) (see "CSS NCCP Guidelines," below).) The Subarea Plan requires a continuous habitat acreage accounting model to assure that adequate progress toward implementation of the plan is being achieved (Implementing Agreement, Section 11.4). A Biological Monitoring Plan to collect and analyze data on specific species and habitats has been prepared for the Preserve and includes specific research tasks that have been developed in accordance with the CSS NCCP Guidelines (MHCP Biological Monitoring and Management Plan; Subarea Plan, Section F; and Implementing Agreement, Section 11.4). In addition, preserve-level monitoring will be required through ASMDs (Section 1.2 of MHCP Volume III, and Section F.2.F and Table 9 of the Subarea Plan) in order to verify species persistence and to provide information sufficient to guide adaptive management strategies.

As described in Section E.5.B of the Subarea Plan and Section 12.3 of the Implementing Agreement, the City is preparing a Preserve Management and Monitoring Plan which will address in detail the implementation of the Preserve management and monitoring recommendations identified in Section F of the Subarea Plan. The Plan shall be completed within one year of the Effective Date of this Agreement. The plan shall be submitted to the USFWS and CDFG for review and concurrence that the plan conforms to the Subarea Plan's

conservation objectives. Promptly thereafter, Carlsbad shall implement the plan, or if the entire plan does not receive concurrence, those portions of the plan concurred with by USFWS and CDFG.

As further described and analyzed in the MHCP Plan, Subarea Plan, Final EIR/EIS, and Implementing Agreement, the MHCP Plan and Subarea Plan provide strong and extensive protections for the perpetuation of wildlife diversity.

Finding 4.2.3 CDFG finds that the Subarea Plan allows compatible and appropriate development and growth, as required by former Section 2805(a).

Explanation 4.2.3: Lands not protected pursuant to the MHCP Plan or Subarea Plan may be developed according to local land use laws and regulations. In addition, the Implementing Agreement provides assurances to local jurisdictions and landowners concerning State and federal mitigation requirements covered by the MHCP Plan and Subarea Plan (Implementing Agreement, Section 10). These assurances will make local permitting processes for development projects and growth activities more certain and predictable. As further described and analyzed in the MHCP Plan, Subarea Plan, Final EIR/EIS, and Implementing Agreement (Section 10), the MHCP Plan and Subarea Plan allow for compatible development and growth in the City.

Finding 4.2.4 CDFG finds that the Subarea Plan is consistent with the NCCP Planning Agreement between CDFG, USFWS, the City of Carlsbad, and SANDAG, as required by former Section 2820.

Explanation 4.2.4: Pursuant to former § 2820, the MHCP and Subarea Plan have been carried out in accordance with the memorandum of agreement (MOA) that the City of Carlsbad entered into with USFWS and CDFG in 1991, and the NCCP enrollment agreement that the City of Carlsbad entered into with the California Resources Agency in 1992. The MOA and NCCP enrollment agreement expressed the City of Carlsbad's intention to complete the Subarea Plan as part of its General Plan and, in the interim, to work cooperatively with USFWS and CDFG to address the impacts of individual projects on sensitive habitats such as coastal sage scrub. The 1992 agreement enrolls the City of Carlsbad in the NCCP program as an Ongoing Multi-Species Plan as defined in Section 3.5 of the NCCP Process Guidelines (September 1, 1992), which allows for appropriate, ongoing multi-species plans within the coastal sage scrub ecosystem to be accepted into the NCCP process. The agreement was supplemented in 1993 to clarify that the HMP is a Subarea Plan within the MHCP.

CDFG believes that the parties to this NCCP planning agreement have complied with their obligations under the agreement during development of the Subarea Plan, that the Subarea Plan itself is consistent with the planning agreement's framework for the Subarea Plan, and that procedural requirements in the planning agreement for development of the Subarea Plan were

followed. CDFG is unaware of substantial evidence in the record that the Subarea Plan is in any way inconsistent with the substantive and procedural requirements of the planning agreement.

Finding 4.2.5

CDFG finds that the Subarea Plan provides for the conservation and management of all species subject to the take authorization provided as part of this NCCP Permit, as required by former Section 2835.

Explanation 4.2.5: This NCCP Permit authorizes the take of 39 species: 20 upon the effective date of the NCCP Permit, and 19 contingent upon additional conditions. Four additional Covered Species are designated as Fully Protected for which take may not be authorized. Many of the facts upon which CDFG relies for including each of these species in this NCCP Permit are provided in Attachment 1, which is incorporated into this finding.

Exhibit A in the Implementing Agreement provides three categories for species coverage based on the level of conservation provided by the Carlsbad Subarea. These categories include:

1. List 1, "Species Adequately Conserved under the Carlsbad Subarea Plan," includes the 24 species for which there is known occurrence data within the Subarea, or for which the Subarea contains suitable habitat or conditions for the species, that are adequately conserved by the Subarea Plan and for which there is adequate funding for the management of conserved areas, so the City's take authorization is maintained regardless of whether other MHCP jurisdictions implement their own Subarea Plans.
2. List 2, "Species Coverage Contingent on Other MHCP Subarea Plans Being Permitted," includes six species that either have some known occurrence data within the Subarea, or for which the Subarea contains suitable habitat or conditions for the species, that would not be expected to be adequately conserved by the Subarea Plan alone, but the City would receive take authorization based in part upon conservation and management for those species that are provided by other MHCP participants. For two of these species (San Diego thorn-mint and wart-stemmed ceanothus), the City would receive take authorization based in part upon management of conserved areas for those species that will be implemented once there is adequate funding.
3. List 3, "Species Coverage Contingent on Funding for Management of Conserved Areas," includes 13 species that either have some known occurrence data within the Subarea, or for which the Subarea contains suitable habitat or conditions for the species, that would not be expected to be adequately conserved by the Subarea Plan alone, but the City would receive take authorization based in part upon management of conserved areas for those species that will be implemented once there is adequate funding. For San Diego marsh elder, take authorization is also contingent on the San Marcos Subarea Plan being permitted. The major population and critical location of San Diego marsh elder along

Encinitas Creek in San Marcos must be conserved in accordance with wetland and critical location policies and managed as part of the preserve system.

All species subject to the take authorization included as part of this NCCP Approval are addressed in the MHCP Plan and Subarea Plan. For the reasons set forth in Attachment 1, and as further described and analyzed in the MHCP Subregional Plan, Subarea Plan, Final EIR/EIS, and the Implementing Agreement, the MHCP Plan and Subarea Plan conserve and manage all of the Covered Species named in this NCCP permit.

4.3 Coastal Sage Scrub NCCP Guidelines

In 1992, CDFG, in consultation with the USFWS, developed the Southern California Coastal Sage Scrub Natural Community Conservation Planning Process Guidelines, as amended November, 1993 (“**Process Guidelines**”). The Process Guidelines provided a framework for natural community conservation planning within the Regional Coastal Sage Scrub Planning Area. The Regional Coastal Sage Scrub Planning Area comprises roughly 6,000 square miles of coastal sage scrub and overlays parts of five counties: San Diego, Orange, Riverside, Los Angeles, and San Bernardino. Coastal sage scrub is an ecological community that supports a diverse assemblage of native California plants and animals.

The Process Guidelines guide the preparation and implementation of NCCPs in the Regional Coastal Sage Scrub Planning Area and provide for the interaction of all of the partners involved. The Process Guidelines explain the roles of the local, state, and federal governments during the planning process and the development of regional and subregional plans. The Process Guidelines are intended to describe a process for regional and subregional natural community planning that ensures adequate participation and collaboration by all stakeholders in the Regional Coastal Sage Scrub Planning Area.

In 1992, CDFG also convened a Scientific Review Panel (“**SRP**”). The role of the SRP was to collect readily available data and to integrate the information into a region-wide scientific framework for conservation planning activities. The SRP’s specific goals were to analyze field data and other research on the coastal sage scrub habitat in order to identify and develop the best scientific information available, and to develop conservation guidelines to protect and manage coastal sage scrub habitat. In March of 1993, the SRP recommended a conservation strategy that served as a basis for the Southern California Coastal Sage Scrub Natural Community Conservation Planning Conservation Guidelines (“**Conservation Guidelines**”), dated November 1993. The Conservation Guidelines were prepared pursuant to former Section 2825(a). Together, the Process Guidelines and Conservation Guidelines comprise the “**CSS NCCP Guidelines.**”

The CSS NCCP Guidelines are intended to provide guidance for natural community conservation planning within the Regional Coastal Sage Scrub Planning Area and do not represent specific

criteria for CDFG approval. However, this Subarea Plan adheres to provisions of the Process Guidelines and the Conservation Guidelines insofar as they address certain key natural community conservation planning elements, which appear in former Section 2825(a) as suggested content for the CSS NCCP Guidelines. The following findings relate to the Subarea Plan's consistency with those key elements:

Finding 4.3.1 CDFG finds that the Subarea Plan substantially adheres to the scope and configuration of regional and subregional planning areas as described in the CSS NCCP Guidelines (former §2825, subd. (a)(1)).

Explanation 4.3.1: The CSS NCCP Guidelines outline the five-county regional planning area of the Regional Coastal Sage Scrub Planning Area (see Attachment B of the Conservation Guidelines). The subregional and subarea planning areas are defined in the MHCP Plan, Volumes I and II, and Final EIR/EIS. The subregional planning area that includes the City of Carlsbad, is detailed in the MHCP Plan, Volume I, Section II.

Finding 4.3.2 CDFG finds that the Subarea Plan substantially adheres to the standards, guidelines, and objectives for the Regional Coastal Sage Scrub Planning Area prescribed in the CSS NCCP Guidelines (former § 2825, subd. (a)(2)).

Explanation 4.3.2: The CSS NCCP Guidelines provide guidance for the evaluation, management, and restoration of coastal sage scrub habitat (Conservation Guidelines, Sections 2-6). The MHCP Plan prescribes methods, policies, guidelines, and goals for assembling the MHCP Preserve (MHCP Plan, Volume 1, Section 4), implementing the MHCP Plan and Subarea Plans (MHCP Plan, Volume 1, Section 5), and managing and monitoring the MHCP Preserve (MHCP Plan Volume 1, Section 6). The Subarea Plan prescribes species and habitat-specific goals and objectives for the management of each preserve area consistent with the guidelines established in Volume 1, Section 6 of the MHCP Plan. Actions for the Subarea Plan include management recommendations, invasive exotics control and removal, public access and trails, land use adjacency guidelines, and preserve design and compatibility.

Finding 4.3.3 CDFG finds that the preparation of the Subarea Plan substantially adhered to the CSS NCCP Guidelines' provisions regarding the appointment and use of "advisory committees" (former § 2825, subd. (a)(3)), coordination with local, state and federal agencies (former §2825, subd. (a)(4)), and public participation (former §2825, subd. (a)(5)).

Explanation 4.3.3: The CSS NCCP Guidelines provide for State and federal wildlife agency coordination, and for participation by and coordination with public agencies and the members of the public (Process Guidelines, Sections 3-5). The MHCP Advisory Committee provided the forum for public discussion and consensus building on issues and proposed policies. The

Advisory Committee included representatives from the seven cities participating in the MHCP, the County and City of San Diego, federal and state wildlife agencies, public facility providers, environmental groups and organizations, property owners, developers, and various citizen and special interest groups. An ad hoc Committee of Elected Officials composed of one elected official from each of the seven participating cities, provided policy perspective and advice on evolving plan recommendations since July 1997. During 1997, the MHCP established a Scientific Review Panel composed of experts on MHCP species, habitats, and associated biological issues. The Scientific Review Panel was used on an individual, as-needed basis to provide data and to review and comment on scientific content and interpretation for the MHCP. In addition to the Scientific Review Panel, numerous other scientists and local biologists, with local knowledge concerning biological resources in the MHCP area, have been consulted throughout the process.

Finding 4.3.4

CDFG finds that the Subarea Plan substantially adheres to the CSS NCCP Guidelines' provisions for ensuring compatibility and compliance with FESA (former § 2825, subd. (a)(6)).

Explanation 4.3.4: The CSS NCCP Guidelines provide for coordination between CDFG and the USFWS and address the requirements of FESA (Process Guidelines, Sections 1, 3, 4, and 5). Pursuant to the December 4, 1991 Memorandum of Understanding between CDFG and USFWS, the two agencies agreed to ensure that plans prepared by local governments and landowners pursuant to the NCCP Act will facilitate compliance with FESA. The MHCP Plan and Subarea Plan comprehensively address habitat conservation concerns pursuant to the standards established by Section 10(a)(1)(B) of FESA and through the special 4(d) rule promulgated by the USFWS, and are compatible and consistent with the incidental take requirements of FESA as evidenced by USFWS's approval of the Subarea Plan.

Finding 4.3.5

CDFG finds that the approval process employed for the Subarea Plan substantially adheres to the CSS NCCP Guidelines (former § 2825, subd. (a)(7)).

Explanation 4.3.5: The CSS NCCP Guidelines prescribe an approval process (Process Guidelines, Section 5.4). As provided in those guidelines, CDFG is issuing this NCCP Permit for species whose conservation and management are provided for in the MHCP Plan and Subarea Plan concurrent with CDFG's execution of the Implementing Agreement.

Finding 4.3.6

CDFG finds that the mechanism for implementing the Subarea Plan substantially adheres to the CSS NCCP Guidelines (former § 2825, subd. (a)(8)).

Explanation 4.3.6: As prescribed in the CSS NCCP Guidelines, the MHCP Plan and its subarea plans will be implemented according to the terms of implementing agreements executed

by all necessary participants. The Implementing Agreement obligates the City to implement the MHCP Plan and Subarea Plan as necessary to assure the long-term viability of biological resources while providing for compatible economic development activities.

Finding 4.3.7 CDFG finds that the Subarea Plan substantially adheres to the CSS NCCP Guidelines provisions concerning monitoring and reporting on NCCP implementation (former § 2825, subd. (a)(9)).

Explanation 4.3.7: The CSS NCCP Guidelines provide for monitoring and evaluating implementation of the NCCPs (Process Guidelines, Section 6). In conformance with the MHCP Plan (Volume I, Section 5) and Subarea Plan (Section E), the Implementing Agreement (Section 11) establishes an implementation plan to monitor species and their associated habitats. A habitat conservation accounting model (i.e., HabiTrak) will be used by the City, USFWS, and CDFG to assess whether the City is meeting its obligation to ensure that habitat preservation is proceeding in rough step with development in the Subarea. The City will also prepare and submit an annual report containing an accounting, by project and cumulatively, of habitat acreage lost and conserved within the Subarea during the previous calendar year. Along with CDFG and USFWS, the City will also participate in an annual public workshop to disseminate and discuss the annual report. In addition, the City shall meet with USFWS and CDFG once each year to review and coordinate implementation of the Subarea Plan.

Finding 4.3.8 CDFG finds that the Implementing Agreement contains provisions allowing for amendment of the Subarea Plan consistent with the initial intent of plan (former § 2825, subd. (a)(10)).

Explanation 4.3.8: The CSS NCCP Guidelines do not specifically address the amendment of NCCPs once they are finalized. Nonetheless, the Implementing Agreement (Section 20.0) includes amendment provisions that allow defined minor amendments, and other amendments with appropriate review and approval.

Finding 4.3.9 CDFG finds that the City's process to develop the Subarea Plan substantially adhered to the CSS NCCP Guidelines provisions concerning the loss of coastal sage scrub habitat prior to approval and implementation of the Subarea Plan and MHCP Subregional Plan.

Explanation 4.3.9: In addition to the above required elements, the CSS NCCP Guidelines included provisions addressing the destruction of coastal sage scrub habitat during the interim planning period leading up to the final preparation and implementation of NCCPs (Process Guidelines, Section 4; Conservation Guidelines, Section 4). Interim take permits and conservation planning by the City during this interim period have complied with the "interim strategy" requirements of the CSS NCCP Guidelines (Final EIR/EIS; City of Carlsbad Quarterly Reports) and total coastal sage scrub acreage impacted has not exceeded the 5 percent allowance

in the CSS NCCP Guidelines. Additionally, the City has, during the interim period, continued implementation of existing state and federal environmental regulations which provide additional protection and mitigation for sensitive biological environmental resources.

5.0 OTHER FINDINGS

5.1 FESA § 4(d) Special Rule

USFWS' FESA § 4(d) Special Rule for the coastal California gnatcatcher provides, in part, that:

Incidental take of the coastal California gnatcatcher will not be considered a violation of Section 9 of the Endangered Species Act of 1973, as amended (Act), if it results from activities conducted pursuant to the State of California's Natural Community Conservation Planning Act of 1991 (NCCP), and in accordance with a NCCP plan for the protection of coastal sage scrub habitat, prepared consistent with the State's NCCP Conservation and Process Guidelines, provided that:

- (i) The NCCP plan has been prepared, approved, and implemented pursuant to California Fish and Game Code [former] Sections 2800 - 2840; and
- (ii) USFWS has issued written concurrence that the NCCP plan meets the standards set forth in 50 CFR 17.32(b)(2).

Finding 5.1.1

CDFG finds that the Subarea Plan complies with the standards in Part 17.41(b)(2) of USFWS regulations for California gnatcatcher (15 C.F.R) because the Subarea Plan was prepared in a manner consistent with the NCCP Conservation and Process Guidelines and in compliance with the NCCPA of 1991.

Explanation 5.1.1: This finding represents a summary of the findings in Sections 4.1, 4.2 and 4.3 above, and the explanation for this finding appears in the explanations for each of those findings. This finding establishes that, in CDFG's judgment, the Subarea Plan qualifies for take authorization under the special 4(d) rule for California gnatcatcher, provided USFWS issues a written concurrence that the NCCP plan meets the applicable standards.

5.2 Fully Protected Species

The following California Fully Protected Species are known to occur in the Subarea: white-tailed kite (*Elanus leucurus*), golden eagle (*Aquila chrysaetos*), American peregrine falcon, California brown pelican, California least tern, and light-footed clapper rail. With the exception of white-tailed kite, all of these are Covered Species under the MHCP Subregional Plan and,

with the exception of golden eagle, are also proposed to be Covered Species under the Subarea Plan. There is also very limited potential for the occurrence of bald eagle (*Haliaeetus leucocephalus*) and ring-tailed cat (*Bassariscus astutus*), both Fully Protected Species, within the Subarea. However, actions taken under the Subarea Plan are not expected to impact these species, and no coverage for direct take of individuals of these species is requested under the Subarea Plan. Take of Fully Protected mammal and bird species is prohibited under California Fish and Game Code Sections 4700 and 3511, respectively.

Finding 5.2.1

CDFG finds that the activities authorized in this approval will not result in take of fully protected species found within the Subarea.

Explanation 5.2.1: The MHCP Subregional Plan (Section 4 of Volume II) and Subarea Plan provide for the conservation of 100 percent of the roosting and foraging habitat for the brown pelican in the MHCP study area, and no new development of beaches and lagoons is authorized. Similarly, 96 percent of the suitable habitat for and species observation points of the California least tern and 100 percent of critical lagoon habitats and major populations will be conserved, and management directives are required by the MHCP to ensure the protection of the species' nesting sites. The MHCP Plan and Subarea Plan will adequately conserve light-footed clapper rail by conserving all potential habitat, critical locations, and location points in the Subarea, and by managing preserve areas consistent with species' needs. The MHCP Plan and Subarea Plan will adequately conserve the American peregrine falcon by conserving 100 percent of wetland habitats used for foraging, including critical foraging areas associated with the coastal lagoons, and 75 percent of the species observation points in the Subarea, and by managing preserve areas consistent with the species' needs. In addition, the MHCP prohibits take and harassment of individual golden eagles or active nests.

CEQA requirements for quantifying and mitigating project impacts on biological resources include the need for species surveys where potential habitat exists (Section 4.0 of MHCP Volume II). Prior to initiating CEQA review, pre-project site visits will be conducted by a qualified biologist in Standards Areas (see Section E.3.B of the Subarea Plan) to ensure that projects comply with the conservation requirements in the Subarea Plan (see Section D). All projects within the Standards Areas will be required to submit a project description and maps that identify: 1) the project's location in relationship to existing conserved habitat within the City; 2) the habitat types and any known occurrence of species in the Subarea Plan and other species of concern in and adjacent to the project area; 3) the expected location, type, and intensity of habitat impacts in the project area; 4) any open space requirement identified for the area under the General Plan; and 5) specific conservation measures to ensure compliance with zone-level and species specific standards. Such baseline information is essential to appropriately evaluate impacts to Fully Protected Species, and to meet the MHCP requirement that no Fully Protected Species will be taken through this permit. Therefore, where baseline information does not exist, or may be outdated, surveys will be performed, as appropriate, during the CEQA review process.

This will ensure appropriate avoidance of Fully Protected Species, including white-tailed kite and, if found in the Subarea, bald eagle and ring-tailed cat.

CDFG has determined that with these conservation measures and other protections for these species, no take of these Fully Protected Species is expected to occur as a result of activities covered by the Subarea Plan and this NCCP Permit.

6.0 AUTHORIZATION OF THE SUBAREA PLAN AND TAKE AUTHORIZATION

Based on the foregoing findings, CDFG concludes that the Subarea Plan meets all necessary requirements for approval as an NCCP. Additional conditions of permit approval are detailed below in Section 6.1. CDFG hereby approves the Subarea Plan pursuant to NCCPA and authorizes the City and any person or entity that is under the direct control of the City to take the species identified in Section 6.3 in carrying out the activities described below in Section 6.2, subject to the limitations set forth in this NCCP Permit. This take authorization is specifically conditioned on the City's compliance with requirements of the MHCP Subregional Plan, the Subarea Plan, and the Implementing Agreement.

6.1 Conditions of Permit Approval

The following actions are conditions of permit approval and must be implemented by Carlsbad for this NCCP Permit to be effective. Carlsbad will use its land-use authority to fully implement the Subarea Plan as follows:

A. Immediately upon approval of the Subarea Plan and execution by the Parties of the Implementing Agreement, Carlsbad will adopt an urgency ordinance pursuant to Government Code § 65858 to require compliance with the Subarea Plan while permanent regulatory measures are drafted and approved. The urgency ordinance is attached to this agreement as Exhibit "C". No take shall be allowed under the Take Authorization / Permit until the urgency ordinance is enacted.

B. Carlsbad will amend the Open Space and Conservation Element of its General Plan to incorporate the Subarea Plan by reference within 12 months of the Effective Date.

C. Carlsbad will amend its Open Space Ordinance (Carlsbad Municipal Code § 21.53.230) to add Conserved Habitat Areas as undevelopable open space lands preserved exclusively and in perpetuity for conservation purposes consistent with the Subarea Plan.

D. Carlsbad will amend its Municipal Code to add a new section to require lands located within the Standards Areas to comply with the specific conservation standards contained in Section D of the Subarea Plan within 12 months of the Effective Date.

E. Carlsbad will amend its General Plan within 12 months of the Effective Date to make the conservation of habitat as identified in the Subarea Plan a priority use for the 15% of otherwise developable land which the Growth Management Plan already requires be set aside for open space purposes.

F. Wetlands Protection Program. For Wetlands, impacts will be avoided to the maximum extent practicable as set forth in Section D.6 of the Subarea Plan and in Sections D.7-6 and D.7-7 (Addendum #2 for the Coastal Zone.) Impacts that cannot be avoided shall be minimized and mitigated in accordance with the wetland mitigation ratios set forth on Table 11 of the Subarea Plan. Mitigation consistent with the Subarea Plan will be identified through environmental review documents prepared pursuant to CEQA and associated mitigation monitoring and reporting programs, and required by Carlsbad as legally enforceable conditions of approval.

G. The authorization granted by this permit is subject to compliance with, and implementation of: the Multiple Habitat Conservation Program Plan, Volumes 1, 2, and 3 (MHCP) (dated March 2003); Habitat Management Plan for Natural Communities in the City of Carlsbad (Subarea Plan) (dated December 1999); the Subarea Plan Addendum 1 (dated December 1999) and Addendum 2 (dated June 2003); and the executed Implementing Agreement (IA), all of which are hereby incorporated into the permit.

H. The Permittee shall ensure that the proposed hardline, provided in Addendum 2 to the Subarea Plan (June 2003) in Figure 21, for the Fox-Miller property is not permitted by the City of Carlsbad under the Subarea Plan, because it does not meet MHCP standards. Before it can receive coverage for thread-leaved brodiaea (*Brodiaea filifolia*), the City must demonstrate, to the satisfaction of the Wildlife Agencies, that this project meets the narrow endemic standards for this critical location and major population of this species. FWS and CDFG will consider proposals for this project to meet the conditions of coverage for thread-leaved brodiaea. If these agencies concur with a project proposal, and the preserve area is managed and monitored to MHCP standards in perpetuity, the Permittee would receive coverage for thread-leaved brodiaea and the Fox-Miller project could be permitted under the Subarea Plan, through the amendment process described in Section 20 of the IA.

I. All monitoring and reporting for this permit shall be in compliance with the MHCP (Vol. I and III) and IA (Section 12). Annual reports are due no later than December 1 of each year, beginning in 2005 and ending in 2054. Copies of all reports shall be submitted to the Regional Manager, California Department of Fish and Game, South Coast Region, 4949 Viewridge Avenue, San Diego, California 92123.

The MHCP Volume II has the following policies and conditions:

- Standard Best Management Practices (Appendix B)

- General Outline for Revegetation Plans (Appendix C)
- Narrow Endemic Species Policy and Critical Population Policy (Appendix D)
- Conditions for Estuarine Species (Appendix E)
- CEQA requirements for quantifying and mitigating project impacts on biological resources, including the need for species surveys where potential habitat exists (Section 4.0). While this requirement applies to all species, it is a condition of coverage (i.e., “As part of the project review process [e.g., CEQA] for individual projects within the MHCP area, a qualified biologist must survey for this species in all potential habitat areas.”) for San Diego thorn-mint, San Diego ambrosia, Orcutt’s spineflower, Blochman’s dudleya, San Diego barrel cactus, Harbison’s dun skipper, Cooper’s hawk, light-footed clapper rail, southwestern willow flycatcher, least Bell’s vireo, Belding’s savannah sparrow, and Pacific pocket mouse.

Furthermore, specific protocol survey requirements are required for the following species: Riverside fairy shrimp, San Diego fairy shrimp, light-footed clapper rail, southwestern willow flycatcher, least Bell’s vireo, Belding’s savannah sparrow, and Pacific pocket mouse (Section 4 of MHCP Volume II).

6.2 Covered Activities

This Permit authorizes take resulting from land use development and other activities that are described in and consistent with the MHCP Subregional Plan, the Subarea Plan, and the Implementing Agreement. These activities are generally described in the following paragraph:

This NCCP Permit authorizes the take by the City and by private persons and public entities that are under the direct control of the City under terms of the Implementing Agreement for those activities described in the Subarea Plan. In most cases, the persons/entities will be landowners and public and private entities undertaking land development activities; all such land development activities must be consistent with the Subarea Plan and Implementing Agreement for take to be authorized. Permits may be issued by the City, consistent with the Subarea Plan, the Federal Section 10(a)(1)(B) Permit, and NCCP Permit for projects within the City’s incorporated limits. Take of Carlsbad Covered Species associated with development of public infrastructure is also authorized consistent with this Subarea Plan (Appendix B). In addition, CDFG authorizes take of Covered Species that may result from monitoring, management, and conservation activities undertaken in the Preserve pursuant to the Subarea Plan and the MHCP, including implementation of adaptive management programs within the Preserve.

For the Proposed Hardline Projects discussed in Section D.3.B of the Subarea Plan and Section 11.B of the Implementing Agreement, the take authorization provided by this NCCP Permit is effective upon issuance of this permit and execution of the Implementing Agreement. The City may extend take authorization for such projects through the land development approval process and associated land development or clearing/grubbing permit issued to each Proposed Hardline Project prior to the start of land development on the site. Any revisions to Hardline Projects need

Wildlife Agency approval prior to the City extending take authorization. CDFG's assurances for Covered Activities are described in Section 10.3.A.2 of the Implementing Agreement. Take authority for projects that are annexed into the City subsequent to the issuance of this NCCP Permit may be provided pursuant to Section E.3 of the Subarea Plan and Section 20.0 of the Implementing Agreement.

6.3 Carlsbad Covered Species

The Subarea Plan provides for the conservation and management of the 43 Covered Species listed below. Attachment 1 shows the 43 Covered Species with five columns of information: species name, expected conservation, potential impacts, monitoring and/or management plan/directives, and rationale for identifying the species as covered. These species will be affected by public and private projects and activities covered by the Subarea Plan. While the Subarea Plan provides benefits for these species, it may also subject them to adverse impacts associated with public and private projects and activities covered by the Subarea Plan. The City and private persons and public entities that are under the direct control of the City under this NCCP Permit are authorized to take 39 species, subject to the limitations set forth in this NCCP Permit. Section 6.3.1 includes 20 "**Species Adequately Conserved under the Carlsbad Subarea Plan**" and for which take is authorized irrespective of any other subarea plan. Section 6.3.2 includes six species for which take authorization depends on other MHCP subarea plans being permitted (see discussion in Section 3.5). Take authorization for two of these species also is contingent on funding for management of conserved areas. Section 6.3.3 includes 13 species for which take authorization depends on funding for the management of conserved areas (see discussion in Section 3.5). Coverage for six of these species is also contingent on the City of Carlsbad receiving legal control over the protection, management, and monitoring of the vernal pools adjacent to the Poinsettia Train Station in Carlsbad. Coverage for one of these species is also contingent on other MHCP Subarea Plans being permitted (see discussion in Section 3.5). While the four Fully Protected Species in Section 6.3.4 are considered Covered Species, no take of individuals of these species is authorized at the time of NCCP Approval. Species evaluations and estimated habitat loss, by vegetation community, are detailed in the MHCP Plan (Volume II, Section 4).

List of 43 Covered Species

Birds

Accipiter cooperii, Cooper's hawk
Aimophila ruficeps canescens, California rufous-crowned sparrow
Charadrius alexandrinus nivosus, Western snowy plover
Empidonax traillii extimus, Southwestern willow flycatcher
Falco peregrinus anatum, American Peregrine falcon
Icteria virens, Yellow-breasted chat
Pandion haliaetus, Osprey

Passerculus sandwichensis beldingi, Belding's savannah sparrow
Passerculus sanwichensis rostratus, Large-billed savannah sparrow
Pelecanus occidentalis californicus, California brown pelican
Plegadis chihi, White-faced ibis
Polioptila californica californica, Coastal California gnatcatcher
Rallus longirostris levipes, Light-footed clapper rail
Sterna antillarum browni, California least tern
Sterna elegans, Elegant tern
Vireo bellii pusillus, Least Bell's vireo

Invertebrates

Branchinecta sandiegonensis, San Diego Fairy Shrimp
Euphyes vestris harbisoni, Harbison's dun skipper
Panoquina errans, Salt marsh skipper
Streptocephalus woottoni, Riverside fairy shrimp

Plants

Acanthomintha ilicifolia, San Diego thorn-mint
Ambrosia pumila, San Diego ambrosia
Arctostaphylos glandulosa ssp. *crassifolia*, Del Mar manzanita
Baccharis vanessae, Encinitas baccharis
Brodiaea filifolia, Thread-leaved brodiaea
Ceanothus verrucosus, Wart-stemmed ceanothus
Chorizanthe orcuttiana, Orcutt's spineflower
Comarostaphylis diversifolia ssp. *diversifolia*, Summer holly
Corethrogyne filaginifolia var. *linifolia*, Del Mar Mesa sand aster
Dudleya blochmaniae ssp. *blochmaniae*, Blochman's dudleya
Dudleya viscida, Sticky dudleya
Eryngium aristulatum var. *parishii*, San Diego button-celery
Euphorbia misera, Cliff spurge
Ferocactus viridescens, San Diego barrel cactus
Hazardia orcuttii, Orcutt's hazardia
Iva hayesiana, San Diego marsh elder
Myosurus minimus ssp. *apus*, Little mousetail
Navarretia fossalis, Spreading navarretia
Orcuttia californica, California Orcutt grass
Pinus torreyana ssp. *torreyana*, Torrey pine
Quercus dumosa, Nuttall's scrub oak
Quercus engelmannii, Engelmann oak

Reptiles

Cnemidophorus hyperythrus beldingi, Orange-throated whiptail

6.3.1 Species Adequately Conserved under the Carlsbad Subarea Plan

Pursuant to the conditions of the MHCP Plan, the Subarea Plan, and Implementing Agreement, and subject to the limitations in this NCCP Permit including those in Section 6.1, CDFG authorizes the City to take the following Species Adequately Conserved effective upon USFWS and CDFG approval of the Implementing Agreement, issuance of take permits, and enactment by the City of General Plan amendments and ordinances required by the Subarea Plan:

Plants

Chorizanthe orcuttiana, Orcutt's spineflower
Dudleya blochmaniae ssp. *blochmaniae*, Blochman's dudleya
Euphorbia misera, Cliff spurge
Hazardia orcuttii, Orcutt's hazardia
Quercus dumosa, Nuttall's scrub oak

Invertebrates

Euphyes vestris harbisoni, Harbison's dun skipper
Panoquina errans, Salt marsh skipper

Birds

Accipiter cooperii, Cooper's hawk
Aimophila ruficeps canescens, California rufous-crowned sparrow
Charadrius alexandrinus nivosus, Western snowy plover
Empidonax traillii extimus, Southwestern willow flycatcher
Icteria virens, Yellow-breasted chat
Pandion haliaetus, Osprey
Passerculus sandwichensis beldingi, Belding's savannah sparrow
Passerculus sanwichensis rostratus, Large-billed savannah sparrow
Plegadis chihi, White-faced ibis
Polioptila californica californica, Coastal California gnatcatcher
Sterna elegans, Elegant tern
Vireo bellii pusillus, Least Bell's vireo

Reptile

Cnemidophorus hyperythrus beldingi, Orange-throated whiptail

The take authorization for the species listed above does not depend on the approval of other MHCP Subarea Plans.

6.3.2 Species Coverage Contingent on Other MHCP Subarea Plans being Permitted

NCCP take authorization for the following species is only effective upon approval and permitting of the named other MHCP Subarea Plan.

Plants	MHCP Subarea Plan
<i>Acanthomintha ilicifolia</i> , San Diego thorn-mint ¹	San Marcos
<i>Ambrosia pumila</i> , San Diego ambrosia	Oceanside
<i>Ceanothus verrucosus</i> , Wart-stemmed ceanothus ¹	San Marcos
<i>Dudleya viscida</i> , Sticky dudleya	Oceanside
<i>Ferocactus viridescens</i> , San Diego barrel cactus	Encinitas
<i>Quercus engelmannii</i> , Engelmann oak	Escondido

6.3.3 Species Coverage Contingent on Funding for Management of Conserved Areas

In order for take to become effective for species whose coverage is contingent on funding for the management of conserved areas, the City will provide CDFG with a written description of how they have met the intent of the conditional coverage. CDFG will review the justification for take of these species, and will have 60 days to respond in writing whether or not the take will be authorized.

Plants

Arctostaphylos glandulosa ssp. *crassifolia*, Del Mar manzanita
Baccharis vanessae, Encinitas baccharis
Brodiaea filifolia, Thread-leaved brodiaea
Comarostaphylis diversifolia ssp. *diverifolia*, Summer holly
Corethrogyne filaginifolia var. *linifolia*, Del Mar Mesa sand aster
Eryngium aristulatum var. *parishii*, San Diego button-celery²
Iva hayesiana, San Diego marsh elder³
Myosurus minimus ssp. *apus*, Little mousetail²

¹ Coverage for this species is also contingent on funding for management of conserved areas.

² Coverage for this species is also contingent on the City of Carlsbad receiving legal control over the protection, management, and monitoring of the vernal pools adjacent to the Poinsettia Train Station in Carlsbad.

³ Coverage for this species is also contingent on other MHCP Subarea Plans being permitted.

Navarretia fossalis, Spreading navarretia²
Orcuttia californica, California Orcutt grass²
Pinus torreyana ssp. *torreyana*, Torrey pine

Invertebrates

Branchinecta sandiegonensis, San Diego fairy shrimp²
Streptocephalus woottoni, Riverside fairy shrimp²

6.3.4 Fully Protected Species

As set forth in the NCCP findings, above, CDFG has determined that the Subarea Plan provides for the conservation and management of four Fully Protected bird species:

<i>Falco peregrinus anatum</i>	American peregrine falcon
<i>Pelecanus occidentalis californicus</i>	California brown pelican
<i>Rallus longirostris levipes</i>	Light-footed clapper rail
<i>Sterna antillarum browni</i>	California least tern

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 Subarea Plan can be carried out without causing take of the Fully Protected birds (see Finding 5.2.1 above) and has determined that the Subarea Plan and MHCP Subregional Plan provide for the conservation and management of these four species. Therefore, consistent with the terms of the Implementing Agreement, the City and private persons and public entities that are under the direct control of the City will receive take authorization 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. Take of American peregrine falcon, California brown pelican, California least tern, and light-footed clapper rail will be automatically authorized upon a written legal determination by CDFG that changes in California law provide CDFG with the authority to permit the take of these birds as part of an NCCP plan. CDFG will provide its legal determination promptly after enactment of any relevant legislation; the determination will be attached to the NCCP Permit.

7.0 LIMITATIONS

In issuing this NCCP Permit, CDFG makes no finding or representation as to whether the activities covered by this Permit are in compliance with other applicable laws, regulations, and ordinances. The City and any other entity or person carrying out activities covered by this NCCP Permit are responsible for ensuring those activities comply with such laws, regulations, and ordinances.

8.0 AMENDMENTS

This NCCP Permit may be amended in a manner consistent with Section 20.0 of the Implementing Agreement and other relevant provisions in the MHCP Subregional Plan, the Subarea Plan, and the Implementing Agreement.

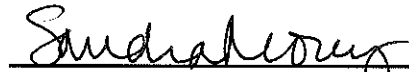
9.0 SUSPENSION, REVOCATION, AND TERMINATION

This NCCP Permit is subject to suspension, revocation, or termination by action of the Director of CDFG as provided in Section 18.1 of the Implementing Agreement.

10.0 TERM OF THE NCCP PERMIT

This NCCP Permit shall take effect after it is signed by CDFG and after all General Plan amendments and ordinances specified in the Subarea Plan have been enacted by the City. The term of this Permit will end on the same date as the term of the Implementing Agreement ends, unless the Permit is suspended, revoked, or terminated by earlier action of CDFG. The Implementing Agreement has a term of fifty (50) years but may be terminated sooner by City withdrawal from the Implementing Agreement or by other action of the parties. CDFG is issuing duplicate originals of this NCCP Permit; CDFG will retain one of the originals and deliver the other to the City.

Approved by:



**SANDRA MOREY, Acting Deputy Director
California Department of Fish and Game**

Date: Nov 15, 2004

11.0 REFERENCES

- AMEC Earth & Environmental, Inc. and Conservation Biology Institute. 2003. Final Multiple Habitat Conservation Program Plan, Volumes I-III. March 2003.
- Carlsbad, City of. 1999. Mitigated Negative Declaration for the Habitat Management Plan for Natural Communities in the City of Carlsbad. September 1999.
- Carlsbad, City of. 1999. Habitat Management Plan for Natural Communities in the City of Carlsbad with Addendum. December 1999.
- Carlsbad, City of. 2003. Negative Declaration for the Second Addendum to the Habitat Management Plan for Natural Communities in the City of Carlsbad and Local Coastal Plan Amendment. February 2003.
- Carlsbad, City of. 2003. Addendum to the Final Environmental Impact Report/Environmental Impact Statement for Threatened and Endangered Species Due to Urban Growth within the Multiple Habitat Conservation Program Planning Area. June 2003.
- Carlsbad, City of. 2004. Mitigation and Implementing Agreement Monitoring Program. November 2004.
- Reiser, C. 2001. The Rare Plants of San Diego County. Aquafir Press.
- San Diego Association of Governments and U.S. Fish and Wildlife Service. 2003. Final Environmental Impact Report/Environmental Impact Statement for Threatened and Endangered Species Due to Urban Growth within the Multiple Habitat Conservation Program Planning Area. March 2003.
- U.S. Fish and Wildlife Service. 2004. Carlsbad Subarea Plan Biological and Conference Opinions (FWS-SDG-847.4).
- U.S. Fish and Wildlife Service, California Department of Fish and Game, and the City of Carlsbad. 2004. Implementing Agreement by and among the City of Carlsbad, the California Department of Fish and Game, and the U.S. Fish and Wildlife Service to Establish the Habitat Management Plan for the Conservation of Threatened, Endangered and Other Species in the City of Carlsbad, California. November 2004.

**ATTACHMENT 1: NCCP ANALYSIS FOR COVERAGE UNDER THE MHCP SUBREGIONAL PLAN AND CARLSBAD SUBAREA PLAN
SPECIES ADEQUATELY CONSERVED UNDER THE CARLSBAD SUBAREA PLAN**

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
PLANTS			
Orcutt's Spineflower <i>Chorizanthe orcuttiana</i> FE / CE List 1B, RED 3-3-3 MHCP Narrow Endemic	The MHCP may adequately conserve this species by conserving 72% of potential habitat and 100% of the one known critical location and major population in Encinitas. Any additional populations found in the future are expected to be protected in accordance with the MHCP critical location and narrow endemic policies. The Subarea Plan will conserve approximately 300 acres of southern maritime chaparral, and any populations found in the City through designation of the species as a Narrow Endemic. An estimated 353 acres (88%) of southern maritime chaparral will be conserved as a result of existing preserve design and application of the City's measures contained in Table 9.	There are no known populations of this species in Carlsbad, and impacts consequently are not anticipated to occur. However, approximately 48 acres (12%) of southern maritime chaparral, which potentially is habitat of this species, may be subject to impacts outside the preserve areas. Potential impacts may include direct or indirect impacts associated with edge effects, and direct mortalities as a result of frequent or catastrophic fire events, or activities associated with fire suppression.	If any populations are found, the long-term preserve management plan shall provide area specific management directives, including specific adaptive management measures to protect constituent species of southern maritime chaparral with a focus on minimizing edge effects associated with urban development (e.g., trampling, vehicular traffic, dumping, invasive exotic species) and protecting the species against frequent or catastrophic fires. Controlled burns (or other fuel modification methods) will be used at a frequency and level sufficient to preclude catastrophic fire events and stimulate regeneration of the population. Experimental reintroduction into preserve areas will be considered as appropriate.
<u>Rationale for Identifying Species as Covered:</u> The MHCP may adequately conserve this species by conserving 72% of potential habitat and 100% of the one known critical location and major population in Encinitas. Any additional populations found in the future are expected to be protected in accordance with the MHCP critical location and narrow endemic policies. Because this is a cryptic species of extremely limited range, focused surveys shall be conducted for this species in all Standards Areas, and any areas outside of the Focus Planning Areas that contain suitable habitat. The Subarea Plan meets take authorization standards for this species due to conservation of large percentages of the preferred habitat of the species (i.e., 88% of southern maritime chaparral); the size, shape and habitat diversity of lands in the preserve; application of the City's measures contained in Table 9; and specific management measures intended to reduce threats to potentially occurring populations.			
Blochman's Dudleya <i>Dudleya blochmaniae</i> ssp. <i>Blochmaniae</i> FSC / None	Blochman's dudleya is not covered in the MHCP but the Subarea Plan has adopted measures to adequately conserve this species. The Subarea Plan will conserve the small	The only documented occurrence of this species in Carlsbad will be conserved entirely by the plan. An estimated 1,270 acres (40%) of preferred habitats for this species (3 acres [8%]	The long-term preserve management plan shall provide area specific management directives for the one known population of Blochman's dudleya and any newly discovered populations

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
List 1B, RED 2-3-2	population identified on the Hieatt property (considered critical because it represents the southern-most known location for the species) as stated in the conservation standards for Zone 5, and other populations found in the City through designation of the species as a Narrow Endemic. A substantial amount of coastal scrub and grassland habitats will be conserved as a result of existing preserve design and application of the City's measures contained in Table 9.	of maritime succulent scrub and 1,267 acres [40%] of Diegan coastal sage scrub) may be subject to impacts outside preserve areas. Potential impacts to the conserved population may include direct or indirect impacts associated with edge effects, and direct mortalities as a result of fires or activities associated with fire suppression.	in Carlsbad, including specific adaptive management measures to protect against edge effects to the conserved population (e.g., trampling, vehicular traffic, dumping, invasive exotic species); fencing may be required. To the extent feasible, populations also will be protected from fires and disturbances associated with fire suppression. Finally, populations that are declining in size may be enhanced via introduction of appropriate plant materials, as necessary.
<p><u>Rationale for Identifying Species as Covered:</u> Blochman's dudleya is not covered in the MHCP but the Subarea Plan has adopted measures to adequately conserve this species. Because it is a cryptic species of very limited range, surveys shall be conducted for this species in all Proposed Hardline Areas and Standards Areas, and any areas outside of the Focus Planning Areas, containing suitable habitat. The Subarea Plan meets the take authorization standards for this species due to conservation of the single-known Carlsbad population; application of the City's measures contained in Table 9; and specific management measures intended to reduce identified threats to conserved populations.</p>			
Cliff Spurge <i>Euphorbia misera</i> None / None List 2 RED Code 2-2-1	The MHCP will adequately conserve this species by conserving 69% of potential habitat and 100% of the one known point location in the study area. The Subarea Plan will conserve coastal sage scrub and coastal bluff scrub habitats, and the one reported population in an existing hardline conservation area. An estimated 33 acres (94%) of coastal bluff scrub and maritime succulent scrub will be conserved as result of existing preserve design and application of the City's measures contained in Table 9.	Cliff spurge is only known to occur within the Subarea within the Agua Hedionda Lagoon and adjacent Kelly Ranch conservation area, both 100 percent Preserve areas. Impacts consequently are not anticipated to occur. However, approximately 2 acres of coastal bluff scrub and maritime succulent scrub, which is potential habitat of the species, may be subject to impacts outside of preserve areas. Potential impacts may include direct or indirect impacts associated with edge effects, and direct mortalities as a result of frequent or catastrophic fire events, or activities associated with fire suppression.	The long-term preserve management plan shall provide area specific management directives for the one known population of cliff spurge and any newly discovered populations in Carlsbad, including specific adaptive management measures to protect constituent species to coastal bluff scrub and maritime succulent scrub by minimizing edge effects associated with urban development (e.g., trampling, vehicular traffic, dumping, invasive exotic species), limiting chemical use within vicinity, controlling nonnative competitive species, and protecting the species against frequent or catastrophic fires. Controlled burns (or other fuel modification methods) will be used at a frequency and level sufficient to preclude catastrophic fire events and stimulate regeneration of the population. This species should be used in coastal bluff revegetation where appropriate.

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
<p><u>Rationale for Identifying Species as Covered:</u> The MHCP will adequately conserve this species by conserving 69% of potential habitat and 100% of the one known point location in the study area. The Subarea Plan meets the take authorization for this species due to: conservation of 94% of the preferred habitat of the species; conservation of the single known site of the species in Carlsbad; the size, shape and habitat diversity of lands in the preserve; application of the City's measures contained in Table 9; and specific management measures intended to reduce threats to potentially occurring populations.</p>			
Orcutt's Hazardia <i>Hazardia orcuttii</i> FSC / CT List 1B, RED 3-3-2 MHCP Narrow Endemic	The MHCP will adequately conserve this species by conserving 66% of potential habitat, 97% of point locations (5 of 6 locations are within the FPA), and 97% of the critical location and major population in Encinitas. The MHCP Narrow Endemic Policy is expected to protect any additional populations found in the future. The Subarea Plan will conserve approximately 300 acres of southern maritime chaparral, and other populations found in the City through designation of the species as a Narrow Endemic. An estimated 353 acres (88%) of southern maritime chaparral will be conserved as a result of existing preserve design and application of the City's measures contained in Table 9.	The only known population of Orcutt's hazardia within the Subarea will be preserved at the Kelly Ranch conservation area and managed in perpetuity. However, approximately 48 acres (12%) of southern maritime chaparral, which potentially is habitat of this species, may be subject to impacts outside the preserve areas. Potential impacts may include direct or indirect impacts associated with edge effects, and direct mortalities as a result of frequent or catastrophic fire events, or activities associated with fire suppression.	The long-term preserve management plan shall provide area specific management directives, including specific adaptive management measures to protect constituent species of southern maritime chaparral will focus on minimizing edge effects associated with urban development (e.g., trampling, vehicular traffic, dumping, invasive exotic species), and protecting the species against frequent or catastrophic fires. Controlled burns (or other fuel modification methods) will be used at a frequency and level sufficient to preclude catastrophic fire events and stimulate regeneration of the population.
<p><u>Rationale for Identifying Species as Covered:</u> The MHCP will adequately conserve this species by conserving 66% of potential habitat, 97% of point locations (5 of 6 locations are within the FPA), and 97% of the critical location and major population in Encinitas. The MHCP Narrow Endemic Policy is expected to protect any additional populations found in the future. The Subarea Plan meets take authorization standards for this species due to conservation of large percentages of the preferred habitat of the species (i.e., 88% of southern maritime chaparral); the size, shape, and habitat diversity of lands in the preserve; application of the City's measures contained in Table 9; and specific management measures intended to reduce threats to potential populations.</p>			
Nuttall's Scrub Oak <i>Quercus dumosa</i> FSC / None List 1B, RED 2-3-2	The MHCP will adequately conserve this species by conserving 66% of potential habitat, 68% of point locations (42 of 61 locations are within the FPA), and 86% of the critical locations and major populations. The Subarea	Although no major populations of this species in Carlsbad will be subject to impacts outside preserve areas, some smaller populations (approximately three of eight mapped localities) will be impacted. In addition, approximately 48	The long-term preserve management plan shall provide area specific management directives for the two known major populations and any other conserved populations of Nuttall's scrub oak in Carlsbad, including specific measures to

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
	Plan will conserve approximately 300 acres of southern maritime chaparral, 100% of the two major populations in proposed hardline conservation areas, and approximately 60% of the other small populations mapped within the City. An estimated 353 acres (88%) of southern maritime chaparral will be conserved as a result of existing preserve design and application of the City's measures contained in Table 9.	acres (12%) of southern maritime chaparral may be subject to impacts outside the preserve areas. Potential impacts to conserved populations may include direct or indirect impacts associated with edge effects, and direct mortalities as a result of frequent or catastrophic fire events, or activities associated with fire suppression.	address the autoecology and natural history of the species and to reduce the risk of catastrophic fire. Adaptive management measures to accomplish this may include controlled burns (or other fuel modification methods), used at a frequency and level sufficient to preclude catastrophic fire events and stimulate regeneration of the population. Revegetation of any chaparral areas should consider restoration of this species. Management measures will focus on minimizing edge effects associated with urban development (e.g., trampling, vehicular traffic, dumping, invasive exotic species) and protecting the species against frequent or catastrophic fires.

Rationale for Identifying Species as Covered: The MHCP will adequately conserve this species by conserving 66% of potential habitat, 68% of point locations (42 of 61 locations are within the FPA), and 86% of the critical locations and major populations. The Subarea Plan meets take authorization standards for this species due to conservation of the all of the major populations within proposed hardline conservation areas; conservation of approximately 63% of other small populations documented within the city; conservation of 88% of southern maritime chaparral, the preferred habitat of the species; the size, shape and habitat diversity of lands in the preserve that support or are adjacent to the conserved, major populations; application of the City's measures contained in Table 9, which include avoidance of this species in biological core and linkage areas; and specific management measures intended to reduce identified threats to conserved populations.

INVERTEBRATES

Harbison's Dun Skipper <i>Euphyes vestris harbisoni</i> FSC / None MHCP Narrow Endemic	The MHCP will adequately conserve this species by conserving all 3 known locations (all considered critical locations), and about 95% of the potential habitat (oak woodlands and riparian) within the study area, mostly within relatively large and contiguous habitat blocks (e.g., on Daley Ranch). The Subarea Plan will conserve approximately 25 acres of oak woodland and approximately 490 acres of riparian habitat within the City (total 87%	Direct impacts to the Harbison's dun skipper are expected to be negligible due to the unlikely occurrence of the species within the planning area, the adequately conserved potential habitat within the Subarea Plan preserve system and the City's no-net-loss of wetlands policy. Indirect impacts to the Harbison's dun skipper are expected to be negligible due to the unlikely occurrence of the species within the planning area.	The long-term preserve management plan shall provide area specific management directives for the host plant, San Diego sedge (<i>Carex spissa</i>), including specific adaptive management measures to protect riparian areas against detrimental edge effects from adjacent development, control non-native plants, maintain hydrology and water quality, and protect habitats from physical disturbances. Management measures will focus on restricting
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COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
	<p>conservation estimated), and assure no net loss of riparian and oak woodland habitats within the City per the City's wetland policy. Carlsbad contains approximately 603 acres of oak or riparian habitats that potentially, but are unlikely to support the Harbison's dun skipper. Of this total, the Subarea Plan will conserve approximately 525 acres (87%) within preserve areas. In addition, approximately 90% conservation of potential Harbison's dun skipper habitat is expected outside of preserve areas due to a low potential for impacts, the City's no-net-loss of wetlands policy, the requirement for maximum avoidance of oak woodland (Table 9), and the additional protection afforded these habitats by state and federal wetlands regulations.</p>		<p>activities within the preserve that degrade or fragment this species' potential habitat, including restricting human activities in occupied habitat. Mitigation for any unavoidable impacts should include translocating any individuals by transplanting whole San Diego sedge plants to appropriate habitat. Translocation should be supervised by a qualified biologist. San Diego sedge should be considered for use in wetland restoration projects where soil and water conditions are appropriate to increase the population of Harbison's dun skipper.</p>
<p><i>Rationale for Identifying Species as Covered:</i> The MHCP will adequately conserve this species by conserving all 3 known locations (all considered critical locations), and about 95% of the potential habitat (oak woodlands and riparian) within the study area, mostly within relatively large and contiguous habitat blocks (e.g., on Daley Ranch). The Subarea Plan meets take authorization standards for this species due to the absence of the species within the City; the 87% conservation of riparian forest, riparian woodland and oak woodland habitats, potential habitats of the species; additional protection afforded wetland habitat by federal and state regulations; and the City's no-net-loss of wetlands policy.</p>			
<p>Salt Marsh Skipper <i>Panoquina errans</i> FSC / None Obligate Wetlands Species</p>	<p>The MHCP will adequately conserve this species by conserving the one known location in the study area (salt marsh in upper Agua Hedionda Lagoon) as well as all potential habitat and critical locations (salt marsh in coastal lagoons), and by managing preserve areas consistent with species' needs. The Subarea Plan will conserve salt marsh habitat at Buena Vista, Agua Hedionda, and Batiquitos Lagoons consistent with the City's wetlands policy, and assure no net loss of salt marsh habitat within the City. Buena Vista, Agua Hedionda, and Batiquitos lagoons contain approximately 151 acres of southern coastal</p>	<p>No direct impacts to the salt marsh skipper are expected because salt marsh habitats will be 100% conserved by the Subarea Plan preserve system and the City's no-net-loss of wetlands policy. Indirect impacts to the salt marsh skipper butterfly could result from the degradation of salt marsh habitat. These impacts could include an increase in adverse edge effects or changes in salt marsh hydrology or water quality. Potential indirect threats to the salt marsh skipper will be minimized by preserve-level and site-specific management measures.</p>	<p>The long-term preserve management plan shall provide area specific management directives for salt marsh habitats, including specific adaptive management measures to protect against edge effects, control invasive non-native plants, maintain salt marsh hydrology and water quality, and protect salt marsh habitat from physical disturbances. Where opportunities arise, habitat in preserve areas should be restored and enhanced. Habitat adjacent to the lagoons should be preserved to the maximum extent possible.</p>

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
	salt marsh habitat within the City of Carlsbad. Of this total, approximately 140 acres (93%) are included within preserve areas. In addition, 100% conservation of salt marsh habitat is expected outside of preserve areas due to a low potential for impacts, the City's no-net-loss of wetlands policy, and the additional protection afforded these habitats by state and federal wetlands regulations.		
<p><i>Rationale for Identifying Species as Covered:</i> The MHCP will adequately conserve this species by conserving the one known location in the study area (salt marsh in upper Aqua Hedionda Lagoon) as well as all potential habitat and critical locations (salt marsh in coastal lagoons), and by managing preserve areas consistent with species' needs. The Subarea Plan meets take authorization standards for this species due to 100% conservation of salt marsh habitat and all known salt marsh skipper butterfly locations; additional protection afforded wetland habitat by federal and state regulations; the City's no-net-loss of wetlands policy and application of measures contained in Table 9; and specific management measures intended to reduce identified threats to conserved populations.</p>			
REPTILES			
Orange-throated Whiptail <i>Cnemidophorus hyperythrus beldingi</i> None / SSC	The MHCP will adequately conserve this species by conserving approximately 66% of the total habitat for the species (including 71% of that within the BCLA), maintaining broad linkages to habitats outside the study area, and managing preserve areas for the benefit of the species. The species seems less affected by fragmentation and edge effects than other coastal sage scrub reptiles (such as the San Diego horned lizard). The FPA will also conserve about 60% of recorded locations (55 of 92 points). Conservation of the additional 400-500 acres of coastal sage scrub in the unincorporated core area will also benefit this species. The Subarea Plan will conserve approximately 2,000 acres of coastal sage scrub, 700 acres of chaparral and 350 acres of southern maritime chaparral where this species	Direct impacts to the orange-throated whiptail could result from the loss of coastal sage scrub and chaparral habitats. In areas of the City not subject to pre-existing take authorizations, approximately 30% of the total orange-throated whiptail habitat and 27% of the habitat within biological core and linkage areas may be subject to impacts outside of preserve areas. Indirect impacts to the orange-throated whiptail could result from the increased fragmentation of this species' habitat. Fragmentation of habitat can result in a less diverse landscape that provides fewer resources for the species, as well as greater demographic stochasticity and an increase in adverse edge effects, such as predation by domestic cats. Indirect impacts associated with habitat fragmentation will be minimized by management measures.	The long-term preserve management plan shall provide area specific management directives for known or likely locations of orange-throated whiptail, including specific adaptive management measures to protect against detrimental edge effects from adjacent development, recreational impacts, and other direct and indirect impacts. Management measures will focus on restricting activities within the preserve that degrade this species' habitat. Management measures may include a predator control program, as well as restrictions on livestock overgrazing and off-road vehicle use. A relocation program (possibly in Core Area 3 or 7) may be established to initiate new populations or enhance and maintain existing populations of this species. Management measures should

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	may occur, and maintain linkages between populations in Core Area 7 and areas to the southeast. Carlsbad supports approximately 5,546 acres of habitats that support or potentially support orange-throated whiptail lizards. Of this total, the Subarea Plan will conserve approximately 3,525 acres (64%) in preserve areas. Within biological core and linkage areas, approximately 3,244 acres (65%) of a total 4,974 acres will be conserved in preserve areas.		facilitate movement between populations within the City as well as to regional linkages.
<p><u><i>Rationale for Identifying Species as Covered:</i></u> The MHCP will adequately conserve this species by conserving approximately 66% of the total habitat for the species (including 71% of that within the BCLA), maintaining broad linkages to habitats outside the study area, and managing preserve areas for the benefit of the species. The species seems less affected by fragmentation and edge effects than other coastal sage scrub reptiles (such as the San Diego horned lizard). The FPA will also conserve about 60% of recorded locations (55 of 92 points). Conservation of the additional 400-500 acres of coastal sage scrub in the unincorporated core area will also benefit this species. The Subarea Plan meets take authorization standards for this species due to adequate conservation of 64% of coastal sage scrub, chaparral, riparian and oak woodland habitats; the configuration of these conserved habitats, including substantial conservation of core areas 3 and 7; preservation within a regional linkage connecting core area to core populations in areas southeast of the City; and specific management measures intended to reduce identified threats to conserved populations.</p>			
BIRDS			
California Brown Pelican <i>Pelecanus occidentalis californicus</i> FE / CE / FP Obligate Wetlands Species	The MHCP will adequately conserve this species by conserving all critical foraging areas and protecting roosting areas from human disturbance. Five of 5 recorded locations (100%) will be conserved, along with essentially all foraging habitat (open waters in lagoons). The Subarea Plan will conserve salt marsh and estuarine habitats at Buena Vista, Agua Hedionda, and Batiquitos Lagoons consistent with the City's wetlands policy, and assure no net loss of salt marsh and estuarine habitats within the City. Buena Vista, Agua Hedionda, and Batiquitos lagoons contain approximately 934 acres of estuarine and salt	No direct impacts to the California brown pelican are expected because estuarine and salt marsh habitats will be 100% conserved by the Subarea Plan preserve system and the City's no-net-loss of wetlands policy. However, lagoon maintenance or enhancement projects or essential public works projects may temporarily take California brown pelican habitat. These impacts would be mitigated through creation of expanded California brown pelican habitat. Indirect impacts to the California brown pelican could result from changes in the hydrology or water quality of Carlsbad's coastal lagoon systems, loss of roosting sites, or increases in	The long-term preserve management plan shall provide area specific management directives for the major resting areas at Agua Hedionda, Buena Vista and Batiquitos Lagoons, including specific adaptive management measures to protect against detrimental edge effects from adjacent development, recreational impacts, and other direct and indirect impacts. Management measures will focus on minimizing the contamination of pelican roosting and foraging areas with pesticides, oil, and other pollutants; reducing disturbances at important foraging and roosting areas; and maintaining the hydrology and water quality of

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
	marsh habitats that support or potentially support California brown pelicans. Of this total, approximately 917 acres (98%) are located in preserve areas. In addition, 100% conservation of pelican habitat is expected outside of preserve areas due to a low potential for impacts, the City's no-net-loss of wetlands policy, and the additional protection afforded these habitats by state and federal wetlands regulations.	human disturbances. Indirect impacts to this species will be minimized by management measures.	coastal lagoon systems (e.g.; 100 foot setback from existing wetland habitats).
<p><i>Rationale for Identifying Species as Covered:</i> The MHCP will adequately conserve this species by conserving all critical foraging areas and protecting roosting areas from human disturbance. All five recorded locations (100%) will be conserved, along with essentially all foraging habitat (open waters in lagoons). The Subarea Plan meets take authorization standards for this species due to 100% conservation of estuarine and salt marsh habitats; additional protection afforded wetland habitat by federal and state regulations; the City's no-net-loss of wetlands policy and application of measures contained in Table 9; and specific management measures intended to reduce identified threats to conserved populations.</p>			
White-faced Ibis <i>Plegadis chihi</i> FSC / SSC Obligate Wetlands Species	The MHCP will adequately conserve this species by conserving 100% of marsh habitats and managing these habitats to benefit the species. Fourteen of 18 location points (78%) will be conserved. Conserve approximately 1,150 acres of marsh, water, and estuarine habitat within preserve areas and assure no net loss of these habitats within the City. The Subarea Plan will conserve populations at Buena Vista and Batiquitos Lagoons, including a critical breeding population at Buena Vista Lagoon. Of the estimated 214 acres of freshwater marsh habitat in the City, approximately 189 acres (88%) will be located within preserve areas. Of the estimated 184 acres of habitat located in biological core and linkage areas, approximately 176 acres (96%) will be located within preserve areas. In addition, 100% conservation of freshwater marsh habitat is expected outside of preserve areas due to a low potential for impacts, the	No direct impacts to the white-faced ibis are expected because freshwater marsh habitat will be 100% conserved by the Subarea Plan preserve system and the City's no-net-loss of wetlands policy. Indirect impacts to the white-faced ibis could result from the degradation of freshwater marsh habitat. These impacts could include an increase in adverse edge effects or changes in marsh hydrology or water quality. Potential indirect threats to the white-faced ibis will be minimized by preserve-level and site-specific management measures.	The long-term preserve management plan shall provide area specific management directives for foraging areas at Agua Hedionda, Batiquitos and Buena Vista Lagoons and upstream freshwater marsh habitats, including specific adaptive management measures to protect against detrimental edge effects; control invasive, nonnative plants; maintain salt marsh hydrology and water quality; and protect salt marsh habitat from physical disturbances, including restrictions on human activity at potential breeding colonies and associated foraging habitat during the early breeding period when courtship and nest building occur (March to June). Management measures may also include a predator control program and a habitat enhancement program designed to increase breeding and wintering populations of this species.

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	City's no-net- loss of wetlands policy, and the additional protection afforded these habitats by state and federal wetlands regulations.		
<p><u>Rationale for Identifying Species as Covered:</u> The MHCP will adequately conserve this species by conserving 100% of marsh habitats and managing these habitats to benefit the species. Fourteen of 18 location points (78%) will be conserved. The Subarea Plan meets take authorization standards for this species due to complete (100%) conservation of major populations at Batiquitos Lagoon and a critical breeding population at Buena Vista Lagoon; 100% conservation of freshwater marsh habitat; additional protection afforded wetland habitat by federal and state regulations; the City's no-net-loss of wetlands policy and application of measures contained in Table 9; and specific management measures intended to reduce identified threats to conserved populations.</p>			
Cooper's Hawk <i>Accipiter cooperii</i> None / SSC	The MHCP will adequately conserve this species by substantially conserving breeding habitats (including 100% of riparian forests and woodlands, and over 75% of oak woodlands) and by managing preserve areas consistent with species' needs. Although some foraging habitat will be lost, sufficient foraging habitats adjacent to breeding habitats will be conserved to ensure species persistence in the area. The Subarea Plan will conserve approximately 525 acres of breeding and primary foraging habitat and approximately 3,500 acres of secondary foraging habitat, and assure no net loss of wetland habitats. Of an estimated 603 acres of Cooper's hawk breeding and primary foraging habitats within the City, approximately 525 acres (87%) will be located within preserve areas. Of an estimated 155 acres of these habitats located within biological core and linkage areas, approximately 143 acres (92%) will be conserved within preserve areas. In addition, 100% conservation of Cooper's hawk breeding habitat is expected outside of preserve areas due to a low potential for impacts, the City's no-net-loss of wetlands policy, and the additional protection afforded these habitats by state and federal wetlands regulations. Of an estimated 6,154 acres of	No direct impacts to the Cooper's hawk's primary breeding and foraging habitats are expected because riparian forest, riparian woodland, and oak woodland habitats will be 100% conserved by the Subarea Plan preserve system and the City's no-net loss of wetlands policy. However, direct impacts to the Cooper's hawk could result from the loss of secondary upland foraging habitats, including coastal sage scrub, chaparral, and grassland habitats. Of the approximately 6,154 acres of these upland habitats in the City, an estimated 2,640 acres (43%) may be subject to impacts outside of preserve areas. Of the approximately 5,201 acres of these habitats in biological core and linkage areas, an estimated 2,159 acres (42%) may be subject to impacts outside of preserve areas. Much of this loss will occur in areas of southeast Carlsbad already subject to take authorization agreements. Indirect impacts to the Cooper's hawk could result from the degradation of it's breeding and foraging habitats. These impacts could include an increase in adverse edge effects; changes in the hydrology or water quality of riparian systems; and increases in human related disturbances. Potential indirect threats to the Cooper's hawk will be minimized by preserve-level and site-	In Proposed Hardline Areas and Standards Areas with oak woodlands or oak riparian forest, surveys shall be conducted for nesting Cooper's hawks. If the species is present, no direct impacts to oak woodland or oak riparian forest shall be allowed in the nesting season, and a 300 ft. impact avoidance area around active nest sites shall be maintained. The long-term preserve management plan shall provide area specific management directives for oak woodlands and oak riparian forest, including specific adaptive management measures to protect against detrimental edge effects from adjacent development, recreational impacts, and other direct and indirect impacts. Management measures will focus on minimizing disturbances in this species' breeding habitat and will include restrictions on livestock overgrazing, removal of oak trees and riparian vegetation, building of trails or roads adjacent to or through breeding areas, and introduction of pesticides or other contaminants into the preserve. During the breeding season, documented nesting sites will be protected from human disturbance. Management measures for this species may also include the enhancement of oak and riparian woodland habitats that support or

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
	secondary foraging habitat for this species, approximately 3,514 acres (57%) will be conserved within preserve areas. In biological core and linkage areas, approximately 3,042 acres (58%) of a total 5,201 acres will be conserved within preserve areas.	specific management measures.	potentially support breeding Cooper's hawks.
<p><u>Rationale for Identifying Species as Covered:</u> The MHCP will adequately conserve this species by substantially conserving breeding habitats (including 100% of riparian forests and woodlands, and over 75% of oak woodlands) and by managing preserve areas consistent with species' needs. Although some foraging habitat will be lost, sufficient foraging habitats adjacent to breeding habitats will be conserved to ensure species persistence in the area. The Subarea Plan meets take authorization standards for this species due to 100% conservation of riparian forest, riparian woodland, and oak woodland habitats; substantial conservation (57%) of additional foraging habitats (e.g., coastal sage scrub and chaparral); additional protection afforded wetland habitat by federal and state regulations; the City's no-net-loss of wetlands policy and application of measures contained in Table 9; and specific management measures intended to reduce identified threats to conserved populations.</p>			
Osprey <i>Pandion haliaetus</i> None / SSC Obligate Wetlands Species	The MHCP will adequately conserve this species by conserving 100% of known locations, critical locations, and foraging habitats in the study area. The Subarea Plan will conserve habitat within Buena Vista, Agua Hedionda, and Batiquitos Lagoons (areas are considered critical locations for the species) consistent with the City's wetlands policy, and assure no-net-loss of wetland habitats within the City. In the City of Carlsbad, approximately 850 acres of osprey habitat are associated with the Buena Vista, Agua Hedionda, and Batiquitos lagoon systems. The Subarea Plan includes approximately 827 acres (97%) of this habitat within preserve areas. Of an estimated 837 acres of habitat located within biological core and linkage areas, approximately 826 acres (99%) are located within preserve areas. In addition, 100% conservation of this species' habitat outside of preserve areas is expected due to a low potential for impacts, the City's no-net-loss of wetlands policy, and the additional protection afforded these habitats by state and federal	No direct impacts to the osprey are expected because estuarine and open freshwater habitats will be 100% conserved by the Subarea Plan preserve system and the City's no-net-loss of wetlands policy. Indirect impacts to the osprey could result from the degradation of estuarine and open freshwater habitats. These impacts could include adverse changes in the hydrology or water quality of coastal lagoon systems. Potential indirect threats to the osprey will be minimized by preserve-level and site-specific management measures.	The long-term preserve management plan shall provide area specific management directives for foraging areas at Agua Hedionda, Batiquitos and Buena Vista Lagoons and upstream freshwater marsh habitats, including specific adaptive management measures to protect against detrimental edge effects from adjacent development, recreational impacts, and other direct and indirect impacts. Management measures will focus on maintaining lagoon system hydrology and water quality, and restricting activities within the preserve that could disturb osprey nesting activities. Management techniques, such as the provision of nesting platforms adjacent to foraging areas, may also be used to enhance osprey populations.

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	wetlands regulations.		
<p><u><i>Rationale for Identifying Species as Covered:</i></u> The MHCP will adequately conserve this species by conserving 100% of known locations, critical locations, and foraging habitats in the study area. The Subarea Plan meets take authorization standards for this species due to 100% conservation of estuarine and open freshwater habitats; the City's no-net-loss of wetlands policy and application of measures contained in Table 9; and specific management measures intended to reduce identified threats to conserved populations.</p>			
American Peregrine Falcon <i>Falco peregrinus anatum</i> None / CE / FP	The MHCP will adequately conserve this species by conserving 100% of wetland habitats used for foraging, including critical foraging areas associated with the coastal lagoons, and by managing preserve areas consistent with species' needs. The species is not known to nest in the study area, but no take of individuals or nests (including by harassment) would be allowed if any were established in the future. The Subarea Plan will conserve salt marsh habitat (i.e., foraging) at Buena Vista, Agua Hedionda and Batiquitos Lagoons and in SRAs consistent with the City's wetlands policy, and assure no-net-loss of salt marsh habitat within the City. Carlsbad contains approximately two bodies of open water, Batiquitos Lagoon and Agua Hedionda Lagoon that potentially support the peregrine falcon as an occasional winter visitor. Of this potential foraging habitat, the Subarea Plan will conserve approximately 100% of the open water habitat.	Direct impacts to the species are unlikely to occur due to the 100% preservation of the lagoons, the City's no-net-loss of wetlands policy, and additional protection afforded wetland habitat by federal and state regulations. Indirect impacts to the peregrine falcon are likely to be negligible and may occur due to disturbances and degradation of habitat adjacent to the lagoons.	Management will focus on restricting activities within the preserve that degrade or disturb this species' foraging habitat, including managing conserved areas to minimize edge effects, control invasive non-native plants, maintain salt marsh hydrology and water quality, protect salt marsh habitat from physical disturbances, and control predators. Where opportunities arise, habitat in preserve areas should be restored and enhanced. Habitat adjacent to the lagoons will be preserved to the maximum extent possible.
<p><u><i>Rationale for Identifying Species as Covered:</i></u> The MHCP will adequately conserve this species by conserving 100% of wetland habitats used for foraging, including critical foraging areas associated with the coastal lagoons, and by managing preserve areas consistent with species' needs. The species is not known to nest in the study area, but no take of individuals or nests (including by harassment) would be allowed if any were established in the future. The Subarea Plan meets take authorization standards for this species due to adequate conservation of winter foraging habitat within Batiquitos and Agua Hedionda lagoons; additional protection afforded wetland habitat by federal and state regulations; and the City's no-net-loss of wetlands policy.</p>			

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Light-footed Clapper Rail <i>Rallus longirostris levipes</i> FE / CE / FP Obligate Wetlands Species	<p>The MHCP will adequately conserve this species by conserving all potential habitat and critical locations and 95% of location points, and by managing preserve areas consistent with species' needs. The Subarea Plan will conserve salt marsh habitat at Buena Vista, Agua Hedionda, and Batiquitos Lagoons consistent with the City's wetlands policy, conserve freshwater marsh used by the light-footed clapper rail during the fall and winter, and assure no net loss of salt marsh or freshwater marsh habitats within the City. Buena Vista, Agua Hedionda, and Batiquitos support approximately 151 acres of southern coastal salt marsh habitat. The Subarea Plan includes approximately 140 acres (93%) of this habitat within preserve areas. In addition, 100% conservation of salt marsh habitat outside of preserve areas is expected due to a low potential for impacts, the City's no-net-loss of wetlands policy, and the additional protection afforded these habitats by state and federal wetlands regulations.</p>	<p>No direct impacts to the light-footed clapper rail are expected because salt marsh habitat will be 100% conserved by the Subarea Plan preserve system and the City's no-net-loss of wetlands policy. Indirect impacts to the species could result from the degradation of estuarine and salt marsh habitats. These impacts could include adverse changes in the hydrology or water quality of coastal lagoon systems. Potential indirect threats to the rail will be minimized by preserve-level and site-specific management measures.</p>	<p>The long-term preserve management plan shall provide area specific management directives for known or potential nesting areas at Agua Hedionda, Batiquitos, and Buena Vista Lagoons and upstream freshwater marsh habitats, including specific adaptive management measures to protect against detrimental edge effects from adjacent development, recreational impacts, and other direct and indirect impacts. Management measures will focus on controlling nonnative plants, maintaining the hydrology and water quality of salt marsh habitat, and protecting salt marsh habitat from physical disturbances. Human activity will be restricted near nesting habitat during the breeding season (April 1 through August 31). Management measures may also include a predator control program and the restoration and enhancement of salt marsh habitat, including experimental cordgrass reintroduction at Batiquitos Lagoon. Where it is deemed appropriate, light-footed clapper rails may be introduced into suitable, unoccupied habitat, and nesting substrates (nesting platforms) may be provided.</p>
<p><u>Rationale for Identifying Species as Covered:</u> The MHCP will adequately conserve this species by conserving all potential habitat and critical locations and 95% of location points, and by managing preserve areas consistent with species' needs. The Subarea Plan meets take authorization standards for this species due to 100% conservation of salt marsh habitat; the City's no-net-loss of wetlands policy and application of measures contained in Table 9; and specific management measures intended to reduce identified threats to conserved populations.</p>			
Western Snowy Plover <i>Charadrius alexandrinus nivosus</i> FT / SSC Obligate Wetlands Species	<p>The MHCP will adequately conserve this species by conserving all potential habitat and critical locations, and by managing preserve areas consistent with species' needs. The Subarea Plan will conserve salt marsh and estuarine habitats at Buena Vista, Agua</p>	<p>No direct impacts to the western snowy plover are expected because salt marsh and estuarine habitats will be 100% conserved by the Subarea Plan preserve system and the City's no-net-loss of wetlands policy. Indirect impacts to the western snowy plover could result from the</p>	<p>The major and critical population at Batiquitos Lagoon shall be managed by the California Department of Fish and Game to control predators, control weed growth on nesting areas, and protect against detrimental edge effects from adjacent development,</p>

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
	Hedionda, and Batiquitos Lagoons consistent with the City's wetlands policy, assure no-net-loss of salt marsh and estuarine habitats within the City, conserve all major populations within the City (i.e., at Agua Hedionda and Batiquitos Lagoons) and assure no direct impacts to nesting areas. Buena Vista, Agua Hedionda, and Batiquitos lagoons contain approximately 934 acres of estuarine and salt marsh habitat that support or potentially support western snowy plover. Of this total, the Subarea Plan includes approximately 917 acres (98%) in preserve areas. In addition, 100% conservation of salt marsh and estuarine habitat outside of preserve areas is expected due to a low potential for impacts, the City's no-net-loss of wetlands policy, and the additional protection afforded these habitats by state and federal wetlands regulations.	degradation of estuarine and salt marsh habitats. These impacts could include adverse changes in hydrology or water quality, and increases in adverse edge effects and human related disturbances. Potential indirect threats to the western snowy plover will be minimized by preserve-level and site specific management measures.	recreational impacts, and other direct and indirect impacts. During the breeding season (April 1 through August 31, activities near nesting habitat shall be restricted and incidental take of the species or occupied habitat shall be prohibited, except as specifically authorized on a case-by-case basis. The long-term management plan shall address enhancement of other potential western snowy plover nesting areas, such as Buena Vista Lagoon, including nesting sites and water quality. If populations are present during the non-breeding season, access control measures should be implement, if warranted.

Rationale for Identifying Species as Covered: The MHCP will adequately conserve this species by conserving all potential habitat and critical locations, and by managing preserve areas consistent with species' needs. The Subarea Plan meets take authorization standards for this species due to complete (100%) conservation of major and critical populations in existing hardline conservation areas; 100% conservation of salt marsh and estuarine habitats; the City's no-net-loss of wetlands policy and application of measures contained in Table 9; and specific management measures intended to reduce identified threats to conserved populations.

Elegant Tern <i>Sterna elegans</i> FSC / SSC	The MHCP will adequately conserve this species by conserving over 96% of suitable habitat and 86% (6 of 7) known locations in the study area, including 100% of lagoon and estuarine habitats, and by managing preserve areas consistent with species' needs. The Subarea Plan will conserve salt marsh and estuarine habitats at Buena Vista, Agua Hedionda, and Batiquitos Lagoons consistent with the City's wetlands policy, and assure no-net-loss of salt marsh and estuarine habitats within the City. Buena Vista, Agua Hedionda, and Batiquitos lagoons contain approximately	No direct impacts to the elegant tern are expected because salt marsh and estuarine habitats will be 100% conserved by the Subarea Plan preserve system and the City's no-net-loss of wetlands policy. Indirect impacts to the elegant tern could result from the degradation of estuarine and salt marsh habitats. These impacts could include adverse changes in the hydrology or water quality of salt marsh and estuarine habitats as well as increases in adverse edge effects and human related disturbances. Potential indirect threats to the this species will be minimized by preserve-level and site-specific	The long-term preserve management plan shall provide area specific directives to protect against detrimental edge effects from adjacent development, recreational impacts, and other direct and indirect impacts. Preserved areas should be managed to minimize edge effects, control non-native plants, maintain hydrology and water quality, protect habitats from physical disturbances, control predators, and maintain vegetation to provide optimal conditions for breeding. The long-term management plan shall address enhancement of potential elegant tern nesting areas, such as
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COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
	934 acres of estuarine and salt marsh habitat that support or potentially support the elegant tern. Of this total, the Subarea Plan includes approximately 917 acres (98%) in preserve areas. In addition, 100% conservation of salt marsh and estuarine habitat outside of preserve areas is expected due to a low potential for impacts, the City's no-net-loss of wetlands policy, and the additional protection afforded these habitats by state and federal wetlands regulations.	management measures.	Buena Vista Lagoon, including nesting sites and water quality. Incidental take of the species during the breeding season is prohibited except as specifically authorized on a case-by-case basis by the Wildlife Agencies. Habitat adjacent to the lagoons should be preserved to the maximum extent possible. Restrictions will be placed on human activities near roosting or potential breeding areas during the breeding season.
<p><u>Rationale for Identifying Species as Covered:</u> The MHCP will adequately conserve this species by conserving over 96% of suitable habitat and 86% (6 of 7) known locations in the study area, including 100% of lagoon and estuarine habitats, and by managing preserve areas consistent with species' needs. The Subarea Plan meets take authorization standards for this species due to 100% conservation of salt marsh and estuarine habitats; the City's no-net-loss of wetlands policy and application of measures contained in Table 9; and specific management measures intended to reduce identified threats to conserved populations.</p>			
California Least Tern <i>Sterna antillarum browni</i> FE / CE / FP	The MHCP will adequately conserve this species by conserving about 96% of suitable habitat and 96% of observation points, including 100% of critical lagoon habitats and major populations, and by managing preserve areas consistent with species' needs. The Subarea Plan will conserve salt marsh and estuarine habitats at Buena Vista, Agua Hedionda, and Batiquitos Lagoons (considered critical locations) consistent with the City's wetlands policy, and assure no-net-loss of salt marsh and estuarine habitats within the City. Buena Vista, Agua Hedionda, and Batiquitos lagoons contain approximately 934 acres of estuarine and salt marsh habitat that support or potentially support the California least tern. Of this total, approximately 917 acres (98%) are located in preserve areas. In addition, 100% conservation of salt marsh and estuarine habitat outside of preserve areas is expected due to a low potential for impacts, the City's no-net-	No direct impacts to the California least tern are expected because salt marsh and estuarine habitats will be 100% conserved by the Subarea Plan preserve system and the City's no-net-loss of wetlands policy. However, lagoon maintenance or enhancement projects or essential public works projects may temporarily take California least tern habitat. These impacts would be mitigated through creation of expanded California least tern habitat. Indirect impacts to the California least tern could result from the degradation of estuarine and salt marsh habitats. These impacts could include adverse changes in the hydrology or water quality of salt marsh and estuarine habitat, as well as increases in adverse edge effects and human related disturbances. Potential indirect threats to this species will be minimized by preserve-level and site-specific management measures.	The major and critical population at Batiquitos Lagoon shall be managed by the California Department of Fish and Game to control predators, control weed growth on nesting areas, and protect against detrimental edge effects from adjacent development, recreational impacts, and other direct and indirect impacts. The long-term management plan shall address water quality and enhancement of habitat at Buena Vista and/or Agua Hedionda Lagoons to induce the initiation of new breeding colonies. Restrictions will be placed on human activities near roosting and breeding areas during the breeding season. Incidental take of the species or occupied habitat during the breeding season is prohibited except as specifically authorized on a case-by-case basis.

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	loss of wetlands policy, and the additional protection afforded these habitats by state and federal wetlands regulations.		
<p><u>Rationale for Identifying Species as Covered:</u> The MHCP will adequately conserve this species by conserving about 96% of suitable habitat and 96% of observation points, including 100% of critical lagoon habitats and major populations, and by managing preserve areas consistent with species' needs. The Subarea Plan meets take authorization standards for this species due to conservation of major populations at Buena Vista, Agua Hedionda and Batiquitos Lagoons; 100% conservation of salt marsh and estuarine habitats; the City's no-net-loss of wetlands policy and application of measures contained in Table 9; and specific management measures intended to reduce identified threats to conserved populations.</p>			
<p>Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i> FE / CE Obligate Wetlands Species</p>	<p>The MHCP may adequately conserve this species by conserving 100% of riparian habitat, species locations, and critical locations in the study area, and by managing the preserve system consistent with species' needs. Take of habitat within the few remaining areas of suitable riparian forest in the study area is expected to be very limited. Some potential habitat for this species is within the reach of the San Luis Rey River being planned for flood control by the Army Corps of Engineers, which is not a signatory to the MHCP. The MCHP cannot guarantee long-term conservation within this reach, where flood control actions may eliminate current or future potential habitat for the southwestern willow flycatcher. The Subarea Plan will conserve approximately 495 acres of riparian habitats, assure no-net-loss of riparian habitats within the City, and conserve 95% of any new populations. Approximately 574 acres of riparian habitats support or potentially support the southwestern willow flycatcher in Carlsbad. Of this total, approximately 498 acres (87%) are located within preserve areas. Of an estimated 619 acres of flycatcher habitat located in biological core and linkage areas, approximately 546 acres (88%) are located in preserve areas. In addition, 100% conservation of riparian</p>	<p>No direct impacts to the southwestern willow flycatcher are expected because riparian forest, riparian woodland, and riparian scrub habitats will be 100% conserved by the Subarea Plan preserve system and the City's no-net-loss of wetlands policy. Indirect impacts to the southwestern willow flycatcher could result from the degradation of riparian habitats, including increases in adverse edge effects and changes in the hydrology or water quality. Potential indirect threats to this species will be minimized by preserve-level and site-specific management measures.</p>	<p>The long-term preserve management plan shall provide area specific management directives for known or potential southwestern willow flycatcher nesting areas, including specific adaptive management measures to control brown-headed cowbirds, provide appropriate successional habitat, provide upland buffers for known populations, minimize night lighting, minimize noise impacts, restrict livestock overgrazing, and protect riparian areas against detrimental edge effects from adjacent development, recreational impacts, and other direct and indirect impacts. Where appropriate, riparian habitat suitable for southwestern willow flycatchers and other sensitive species should be restored or enhanced. Management measures will focus on minimizing activities within the preserve that degrade riparian forest, riparian woodland, and riparian scrub habitats, maintaining the hydrology and water quality of riparian habitats, and restricting human activities in flycatcher-occupied habitat during the breeding season (May 1 to September 15). Incidental take of the species or occupied habitat during the breeding season is prohibited except as specifically authorized on a case-by-case basis by the Wildlife Agencies.</p>

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
	habitats outside of preserve areas is expected due to a low potential for impacts, the City's no-net-loss of wetlands policy, and the additional protection afforded these habitats by state and federal wetlands regulations.		
<p><i>Rationale for Identifying Species as Covered:</i> The MHCP may adequately conserve this species by conserving 100% of riparian habitat, species locations, and critical locations in the study area, and by managing the preserve system consistent with species' needs. Take of habitat within the few remaining areas of suitable riparian forest in the study area is expected to be very limited. Some potential habitat for this species is within the reach of the San Luis Rey River being planned for flood control by the Army Corps of Engineers, which is not a signatory to the MHCP. The MCHP cannot guarantee long-term conservation within this reach, where flood control actions may eliminate current or future potential habitat for the southwestern willow flycatcher. The Subarea Plan meets take authorization standards for this species due to 100% conservation of riparian forest, riparian woodland, and riparian scrub habitats; the City's no-net-loss of wetlands policy and application of measures contained in Table 9; and species-specific management.</p>			
Least Bell's Vireo <i>Vireo bellii pusillus</i> FE / CE Obligate Wetlands Species	The MHCP is expected to adequately conserve this species by conserving 100% of riparian habitat (under the MHCP no net loss policy for wetland vegetation), 85% of known species locations, and 93% of species locations within the BCLA. However, the MHCP cities cannot guarantee that these conservation levels will actually be achieved in the long term, because much of the highest quality habitat, including much of the one large critical population area for this species, are within a reach of the San Luis Rey River that is being planned for flood control by the Army Corps of Engineers, which is not a signatory to the MHCP. Under current plans, the flood control project would adversely affect a large proportion of the habitat, species population, and critical location, although no ultimate design has yet been decided upon. The Subarea Plan will conserve approximately 495 acres (86%) of riparian habitats, assure no net loss of riparian scrub within the City, and conserve 95% of known point locations for least Bell's vireo within preserve areas. Approximately 574 acres of riparian habitats support or potentially	No direct impacts to the least Bell's vireo are expected because riparian forest, riparian woodland, and riparian scrub habitats will be 100% conserved by the Subarea Plan preserve system and the City's no-net-loss of wetlands policy. Indirect impacts to the least Bell's vireo could result from the degradation of riparian habitats, including increases in adverse edge effects (such as cowbird nest parasitism) and changes in the hydrology or water quality. Potential indirect threats to this species will be minimized by preserve-level and site-specific management measures.	The long-term preserve management plan shall provide area specific management directives for known or potential least Bell's vireo nesting areas, including specific adaptive management measures to control brown-headed cowbirds, restrict livestock overgrazing, provide appropriate successional habitat, restore or enhance riparian habitat suitable, provide upland buffers for known populations, restrict the alteration or clearing of riparian vegetation, control exotic invasive vegetation, maintain hydrology and water quality in riparian habitat, minimize night lighting, minimize noise impacts, and protect riparian areas against detrimental edge effects from adjacent development, recreational impacts, and other direct and indirect impacts. Restrict activities in vireo-occupied habitat during the breeding season, including no clearing of habitat (April 15 to September 15). Incidental take of the species or occupied habitat during the breeding season is prohibited except as specifically authorized on a case-by-case basis.

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
	support least Bell's vireo in Carlsbad. Of this total, approximately 498 acres (87%) are located within preserve areas. Of an estimated 619 acres of vireo habitat located in biological core and linkage areas, approximately 546 acres (88%) are expected to be conserved in preserve areas. In addition, 100% conservation of riparian habitats outside of preserve areas is expected due to a low potential for impacts, the City's no-net-loss of wetlands policy, and the additional protection afforded these habitats by state and federal wetlands regulations.		
<p><u>Rationale for Identifying Species as Covered:</u> The MHCP is expected to adequately conserve this species by conserving 100% of riparian habitat (under the MHCP no-net-loss policy for wetland vegetation), 85% of known species locations, and 93% of species locations within the BCLA. However, the MHCP cities cannot guarantee that these conservation levels will actually be achieved in the long term, because much of the highest quality habitat, including much of the one large critical population area for this species, are within a reach of the San Luis Rey River that is being planned for flood control by the Army Corps of Engineers, which is not a signatory to the MHCP. Under current plans, the flood control project would adversely affect a large proportion of the habitat, species population, and critical location, although no ultimate design has yet been decided upon. The Subarea Plan meets take authorization standards for this species due to 100% conservation of riparian forest, riparian woodland, and riparian scrub habitats; the City's no-net-loss of wetlands policy and application of measures contained in Table 9; and specific management measures intended to reduce identified threats to conserved populations.</p>			
Coastal California Gnatcatcher <i>Poliophtila californica californica</i> FT / SSC	The MHCP will adequately conserve this species via the following minimum estimates of conservation expected under the plan (note that some additional but unquantified conservation is also expected to occur via the project design and approval processes mandated by city subarea plans). These projected minimum conservation estimates are hereby also incorporated as permit conditions for the coastal California gnatcatcher: 1. Conserve at least 5,580 acres (61%) of the extant coastal scrub (including coastal sage scrub, maritime succulent scrub, coastal bluff scrub, and mixed coastal sage scrub/chaparral vegetation communities) within the MHCP plan area.	Direct impacts to the California gnatcatcher could result from the loss of coastal sage scrub habitat used for nesting and foraging by California gnatcatchers. There are approximately 3,377 acres of coastal sage scrub habitats (including maritime succulent scrub and mixed coastal sage scrub/chaparral) within the City of Carlsbad. Of this total, approximately 36% may be subject to impacts outside of preserve areas. A larger proportion of the acreage subject to impacts is on properties subject to existing take authorizations in southeast Carlsbad. Of the approximately 3,054 acres of coastal sage scrub habitats within biological core and linkage areas, approximately 41% may be subject to impacts outside of preserve areas.	The long-term preserve management plan shall provide area specific management directives for all conserved California gnatcatcher locations and any other potential habitat, including specific measures to address control of domestic pets, cowbirds, and predators, prevent livestock overgrazing, restrict human disturbance, reduce other edge effects to minimize disturbance during the nesting season, and reduce the potential for habitat degradation due to unplanned fire. A fire management program should be prepared for preserve areas as part of the detailed management plan. Adaptive management may include measures to maintain or improve overall habitat quality, including vegetation structure. Where opportunities arise, coastal

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
	<p>2. Conserve at least 55% (2,780 acres) of the remaining high-value breeding habitat and 60% (963 acres) of the remaining moderate-value breeding habitat in the MHCP plan area, as determined using the MHCP habitat suitability model.</p> <p>3. Conserve at least 68% (5,185 acres) of the coastal scrub that lies within the BCLA, and conserve at least 64% of the high-value breeding habitat (2,551 acres) and 78% of the moderate-value breeding habitat (891 acres) that lies within the BCLA.</p> <p>4. Conserve at least 62% of known coastal California gnatcatcher localities (333 of 539 points), including 69% of the locations within the BCLA (295 of 431 points).</p> <p>5. Restore and enhance at least 338 acres of coastal sage scrub in critical locations to increase breeding habitat and improve functionality of a "stepping-stone" linkage through the MHCP plan area.</p> <p>6. Conserve 400 to 500 acres of core coastal California gnatcatcher breeding habitat in the unincorporated area southeast of the MHCP plan area, but contiguous with and contributing to the stepping-stone corridor across the plan area. The gross acreage conserved may be larger than this to include 400 to 500 acres of coastal California gnatcatcher breeding habitat. The core area must be capable of supporting at least 16 to 23 pairs of breeding coastal California gnatcatchers during good years, as determined by appropriate habitat evaluations and verified by future monitoring.</p> <p>The Subarea Plan will conserve approximately 2,000 acres of coastal sage scrub, conserve mapped California gnatcatcher locations within conserved habitat, and maintain regional linkages. Carlsbad contains a total of 3,377 acres of coastal sage scrub habitats (including</p>	<p>Approximately 50% of the coastal sage scrub subject to impacts in biological core and linkage areas is on properties subject to existing take authorization agreements. Hence, impacts to California gnatcatchers are expected to occur largely on properties over which the city no longer has planning control, particularly in biological core and linkage areas. Indirect impacts to the California gnatcatcher could result from the fragmentation of coastal sage scrub and other habitats used for dispersal and foraging. Fragmentation of California gnatcatcher habitat could result in a less diverse landscape that provides fewer breeding opportunities and other important resources for the species. Habitat fragmentation may result in more adverse edge-related effects and greater demographic stochasticity for California gnatcatcher populations. Indirect impacts associated with the fragmentation of coastal sage scrub habitats will be minimized by management measures.</p>	<p>sage scrub within preserve areas should be enhanced and restored, with priority given to creation of California gnatcatcher breeding opportunities within constrained linkages. No clearing of occupied habitat may occur between March 1 and August 15.</p>

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	<p>maritime succulent scrub and mixed coastal sage scrub/chaparral) that support or potentially support California gnatcatchers, or provide dispersal or foraging habitat. Of this total, approximately 2,146 acres (64%) will be conserved within preserve areas. Of the 3,054 acres of coastal sage scrub located within biological core and linkage areas, 64% will be conserved within preserve areas. Additional conservation for this species will be achieved by the enhancement and restoration of coastal sage scrub habitats within preserve areas. Priority will be placed on the creation of breeding opportunities for this species within constrained linkages.</p>		
<p><u><i>Rationale for Identifying Species as Covered:</i></u> The MHCP will adequately conserve this species via the minimum estimates of conservation expected under the plan (note that some additional but unquantified conservation is also expected to occur via the project design and approval processes mandated by city subarea plans). Within Standards Areas, 75% of coastal California gnatcatchers shall be conserved. The Subarea Plan meets take authorization standards for this species due to adequate conservation of coastal sage scrub habitats, known species' locations, and critical regional linkages; a configuration of conserved habitats that contributes to regional metapopulation stability; and specific management measures intended to reduce identified threats to conserved populations.</p>			
<p>Yellow-breasted Chat <i>Icteria virens</i> SSC / None Obligate Wetlands Species</p>	<p>The MHCP is expected to adequately conserve this species by conserving 100% of riparian habitat (under the MHCP no-net-loss policy for wetland vegetation), 90% of known species locations, and 91% of species locations within the BCLA. However, the MHCP cities cannot guarantee that these conservation levels will actually be achieved in the long term, because much of the highest quality habitat, including much of the critical population area for this species, are within a reach of the San Luis Rey River that is being planned by the Army Corps of Engineers for flood control. Under current plans, the flood control project would adversely affect a large proportion of the habitat, species population,</p>	<p>No direct impacts to the yellow-breasted chat are expected because riparian forest, riparian woodland, and riparian scrub habitats will be 100% conserved by the Subarea Plan preserve system and the City's no-net-loss of wetlands policy. Indirect impacts to the yellow-breasted chat could result from the degradation of riparian habitats, including increases in adverse edge effects and changes in hydrology or water quality. Potential indirect threats to this species will be minimized by preserve-level and site-specific management measures.</p>	<p>The long-term preserve management plan shall provide area specific management directives for known or potential yellow-breasted chat nesting areas, including specific adaptive management measures to control brown-headed cowbirds, provide upland buffers for known populations, and protect riparian areas against detrimental edge effects from adjacent development, recreational impacts, and other direct and indirect impacts. Preserve areas will be managed to minimize activities that would degrade riparian habitats, restrict livestock overgrazing and the alteration or clearing of riparian vegetation, control exotic invasive vegetation, and control predators. Management measures will also maintain the</p>

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
	and critical location. The Subarea Plan will conserve riparian habitat within preserve areas, and assure no net loss of riparian habitats within the City. Approximately 574 acres of riparian habitats support or potentially support the yellow-breasted chat in Carlsbad. Of this total, approximately 498 acres (87%) is included within preserve areas. Of an estimated 619 acres of yellow-breasted chat habitat located in biological core and linkage areas, approximately 546 acres (88%) are included in preserve areas. In addition, 100% conservation of riparian habitats outside of preserve areas is expected due to a low potential for impacts, the City's no-net-loss of wetlands policy, and the additional protection afforded these habitats by state and federal wetlands regulations.		hydrology and water quality of riparian habitats and restrict human activities in yellow-breasted chat-occupied habitat during the breeding season. Yellow-breasted chat habitat may be restored or enhanced where appropriate and in consideration of the ecological requirements of other sensitive riparian-dependent species (e.g., least Bell's vireo). Incidental take of the species or occupied habitat during the breeding season is prohibited except as specifically authorized on a case-by-case basis.
<p><u>Rationale for Identifying Species as Covered:</u> The MHCP is expected to adequately conserve this species by conserving 100% of riparian habitat (under the MHCP no-net-loss policy for wetland vegetation), 90% of known species locations, and 91% of species locations within the BCLA. However, the MHCP cities cannot guarantee that these conservation levels will actually be achieved in the long term, because much of the highest quality habitat, including much of the critical population area for this species, are within a reach of the San Luis Rey River that is being planned by the Army Corps of Engineers for flood control. Under current plans, the flood control project would adversely affect a large proportion of the habitat, species population, and critical location. The Subarea Plan meets take authorization standards for this species due to 100% conservation of riparian forest, riparian woodland, and riparian scrub habitats; the City's no-net-loss of wetlands policy and application of measures contained in Table 9; and specific management measures intended to reduce identified threats to conserved populations.</p>			
Southern California Rufous-crowned Sparrow <i>Aimophila ruficeps canescens</i> FSC / SSC	The MHCP will adequately conserve this species by conserving at least 61% of potential habitat (68% within the BCLA) and 67% of known locations (78% within the BCLA), and by managing preserve areas consistent with species' needs. Habitat restoration, conservation of the 400-500-acre unincorporated core area, and other management actions designed for the coastal California gnatcatcher should also benefit the southern California rufous-crowned sparrow. The Subarea Plan will conserve known	Direct impacts to the southern California rufous-crowned sparrow could result from the loss of coastal sage scrub habitat that may be used for nesting and foraging. There are approximately 3,377 acres of coastal sage scrub habitats within the City of Carlsbad. Of this total, approximately 36% may be subject to impacts outside of preserve areas. Indirect impacts to the southern California rufous-crowned sparrow could result from the fragmentation of coastal sage scrub habitats. Habitat fragmentation may result in more adverse edge related effects and	The long-term preserve management plan shall provide area specific management directives for known or likely locations of southern California rufous-crowned sparrow, including specific adaptive management measures to protect against detrimental edge effects from adjacent development, recreational impacts, and other direct and indirect impacts. Preserve areas will be managed control cowbirds and predators, prevent livestock overgrazing, and restrict human disturbance. A fire management program for preserve areas will be prepared

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
	locations within proposed and existing hardlined conservation areas, conserve approximately 2,000 acres of coastal sage scrub, and maintain regional linkages. The records and habitat usage for southern California rufous-crowned sparrows tend to overlap well with coastal California gnatcatchers and conservation of the coastal California gnatcatcher likely would serve southern California rufous-crowned sparrows as well. Carlsbad contains approximately 3,377 acres of coastal sage scrub habitat that support or potentially support southern California rufous-crowned sparrows. Of this total, the Subarea Plan will conserve approximately 2,146 acres (64%).	greater demographic stochasticity for the potential southern California rufous-crowned sparrow populations, which are likely to be present but have not been documented. Indirect impacts associated with the fragmentation of coastal sage scrub habitat will be minimized by management measures.	and implemented as part of the detailed management plan. Where opportunities arise, coastal sage scrub within preserve areas should be enhanced and restored, with priority given to creating of breeding opportunities within constrained linkages.
<p><u>Rationale for Identifying Species as Covered:</u> The MHCP will adequately conserve this species by conserving at least 61% of potential habitat (68% within the BCLA) and 67% of known locations (78% within the BCLA), and by managing preserve areas consistent with species' needs. Habitat restoration, conservation of the 400-500-acre unincorporated core area, and other management actions designed for the coastal California gnatcatcher should also benefit the southern California rufous-crowned sparrow. The Subarea Plan meets take authorization standards for this species due to adequate conservation of coastal sage scrub habitat, known species' locations, and regional linkages; a configuration of conserved habitats that contributes to regional potential metapopulation stability; and specific management measures intended to reduce identified threats to conserved populations.</p>			
Belding's Savannah Sparrow <i>Passerculus sandwichensis beldingi</i> FSC / CE Obligate Wetlands Species	The MHCP will adequately conserve this species by conserving 100% of salt marsh habitat, 74% of recorded location points, and all critical locations, and by managing preserve areas consistent with species' needs. Surveys indicate this species is increasing in most estuaries and lagoons, particularly those managed to restore or maintain full tidal action (Batiquitos and San Elijo). The Subarea Plan will conserve salt marsh habitat at Buena Vista, Agua Hedionda, and Batiquitos Lagoons and in SRAs consistent with the City's wetlands policy, assure no-net-loss of salt marsh habitat within the City, and conserve all major	No direct impacts to Belding's savannah sparrow are expected because salt marsh habitats will be 100% conserved by the Subarea Plan preserve system and the City's no-net-loss of wetlands policy. However, lagoon maintenance or enhancement projects or essential public works projects may temporarily take Belding's savannah sparrow habitat. These impacts would be mitigated through creation of expanded Belding's savannah sparrow habitat. Indirect impacts to Belding's savannah sparrow could result from the degradation of salt marsh habitat. These impacts could include an increase in adverse edge effects or changes in salt marsh	The long-term preserve management plan shall provide area specific management directives for the major nesting areas at Agua Hedionda and Batiquitos Lagoons, including specific adaptive management measures to maintain salt marsh hydrology and water quality and protect against detrimental edge effects from adjacent development, recreational impacts, and other direct and indirect impacts. Habitat adjacent to the lagoons will be preserved to the maximum extent possible. Management measures will focus on controlling predators and invasive, nonnative plants and protecting salt marsh habitat from physical disturbances.

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
	populations of this species at Agua Hedionda and Batiquitos Lagoons. Buena Vista, Agua Hedionda, and Batiquitos lagoons contain approximately 151 acres of southern coastal salt marsh habitat within the City of Carlsbad. Of this total, an estimated 140 acres (93%) is located in preserve areas. In addition, 100% conservation of salt marsh habitat outside of preserve areas is expected due to a low potential for impacts, the City's no-net-loss of wetlands policy, and the additional protection afforded wetlands by state and federal regulations.	hydrology or water quality. Potential indirect threats to Belding's savannah sparrow will be minimized by preserve-level and site-specific management measures.	Management measures may also include enhancement or restoration of salt marsh habitat.

Rationale for Identifying Species as Covered: The MHCP will adequately conserve this species by conserving 100% of salt marsh habitat, 74% of recorded location points, and all critical locations, and by managing preserve areas consistent with species' needs. Surveys indicate this species is increasing in most estuaries and lagoons, particularly those managed to restore or maintain full tidal action (Batiquitos and San Elijo). The Subarea Plan meets take authorization standards for this species due to conservation of all major populations at Agua Hedionda and Batiquitos Lagoons; 100% conservation of salt marsh habitat; the City's no-net-loss of wetlands policy and application of measures contained in Table 9; and specific management measures intended to reduce identified threats to conserved populations.

Large-billed Savannah Sparrow <i>Passerculus sandwichensis rostratus</i> FSC / SSC Obligate Wetlands Species	The MHCP will adequately conserve this species by conserving 100% of salt marsh habitat and critical locations, and by managing preserve areas consistent with species' needs. There are no location points in the MHCP database. The Subarea Plan will conserve approximately 99% of salt marsh habitat at Buena Vista, Agua Hedionda, and Batiquitos Lagoons, and assure no net loss of salt marsh habitat within the City. Buena Vista, Agua Hedionda, and Batiquitos lagoons contain approximately 151 acres of southern coastal salt marsh habitat within the City of Carlsbad. Of this total, an estimated 140 acres (93%) are located within the preserve areas. In addition, 100% conservation of salt marsh habitat outside of preserve areas is expected due to a low potential for impacts, the City's no-net-	No direct impacts to large-billed savannah sparrow are expected because salt marsh habitats will be conserved by the Subarea Plan preserve system and the City's no-net-loss of wetlands policy. In addition, specific adaptive management measures will address water quality and protect this species against detrimental edge effects from developing recreational impacts, and other direct and indirect impacts. Indirect impacts to the large-billed savannah sparrow could result from the degradation of salt marsh habitat. These impacts could include an increase in adverse edge effects or changes in salt marsh hydrology or water quality. Potential indirect threats to the large-billed savannah sparrow will be inimized by preserve-level and site-specific management measures.	The long-term preserve management plan shall provide area specific management directives for the potential nesting areas at Agua Hedionda and Batiquitos Lagoons, including specific adaptive management measures to address water quality and protect against detrimental edge effects from adjacent development, recreational impacts, and other direct and indirect impacts. Habitat adjacent to the lagoons will be preserved to the maximum extent possible. Management measures will focus on controlling predators and invasive, nonnative plants and protecting salt marsh habitat from physical disturbances. Management measures may also include a habitat enhancement or restoration program designed to allow for the expansion of large-billed savannah sparrow populations into new
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COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
	loss of wetlands policy, and the additional protection afforded wetlands by state and federal regulations.		locations.
<p><u>Rationale for Identifying Species as Covered:</u> The MHCP will adequately conserve this species by conserving 100% of salt marsh habitat and critical locations, and by managing preserve areas consistent with species' needs. There are no location points in the MHCP database. The Subarea Plan meets take authorization standards for this species due to 100% conservation of salt marsh habitat; the City's no-net-loss of wetlands policy and application of measures contained in Table 9; and specific management measures intended to reduce identified threats to conserved populations.</p>			

**SPECIES COVERAGE CONTINGENT ON OTHER MHCP SUBAREA PLANS
BEING PERMITTED AND/OR FUNDING FOR MANAGEMENT OF CONSERVED AREAS**

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
PLANTS			
San Diego Thorn-mint <i>Acanthomintha ilicifolia</i> FT / SE List 1B, RED 2-3-2 MHCP Narrow Endemic	The MHCP will contribute to the conservation of this species within the area by conserving 92% of point locations (14 of 22 locations are within the FPA) and conserving the 91% of the critical locations and major populations within the study area. Excluding the San Marcos Major Amendment Area, 52% of the potentially suitable habitat for the species will be conserved by the MHCP. A majority of one major and critical population is in the San Marcos Major Amendment Area, which is not addressed in this plan. The Subarea Plan will conserve the following: vernal pool habitat and grassland habitat within preserve areas; 4 of 5 major populations and 9 of 13 mapped localities within the City through existing or proposed hardline conservation areas or	Although seven known sites will be conserved by the plan, there are at least four known localities where this species is outside the preserve. In addition, one major population will not be conserved within existing or proposed hardline conservation areas. An estimated 1,140 acres (63%) of grassland habitat also may be subject to impacts outside preserve areas; however, this species is restricted to particular sites within grasslands. Potential impacts to conserved populations may include direct or indirect impacts associated with edge effects, loss or alteration of watershed, and direct mortalities as a result of fire or activities associated with fire suppression.	Because this is a cryptic species of extremely limited range, surveys shall be conducted for this species in all Proposed Hardline Areas and Standards areas, and any areas outside of the Focus Planning Areas, containing suitable habitat. The long-term preserve management plan shall provide area specific management directives for the 13 known populations of San Diego thorn-mint in Carlsbad, including specific adaptive management measures to protect against detrimental edge effects from adjacent development, recreational impacts, and other direct and indirect impacts, control access, limit disturbance, limit chemical use within immediate vicinity, control non-native competitive species, and maintain hydrology and water quality, and enhance small

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
	within a standards area; and other populations found in the City through designation of the species as a Narrow Endemic (conserved at 100% level within the preserve). A substantial acreage of grassland (37%) habitat and vernal pools will be conserved as a result of existing and proposed preserve design and application of the City's measures contained in Table 9.		populations by introduction of appropriate plant materials, as necessary. Additional management measures that will protect constituent species of vernal pool and grassland habitats will focus on protecting the species against frequent or catastrophic fires. Controlled burns (or other fuel modification methods) will be used at a frequency and level sufficient to preclude catastrophic fire events and stimulate regeneration of the population.
<p><u>Rationale for Identifying Species as Covered:</u> The MHCP will contribute to the conservation of this species within the area by conserving 92% of point locations (14 of 22 locations are within the FPA) and conserving the 91% of the critical locations and major populations within the study area. The Subarea Plan meets the take authorization for this species due to: conservation of 4 of 5 known major populations; conservation of one of two additionally mapped smaller populations (50%); conservation of 37% of grassland habitat in preserved areas; and application of measures contained in Table 9.</p>			
<p>San Diego Ambrosia <i>Ambrosia pumila</i> FE / None List 1B, RED 3-3-2 MHCP Narrow Endemic</p>	<p>The MHCP will adequately conserve this species by conserving 88% of point locations (all 4 locations are within the FPA) and 95% of the critical location and major population in Oceanside. About 51% of the potentially suitable habitat for the species will be conserved under the MHCP. An estimated 2,164 acres (64 %) of coastal sage scrub and 667 acres (37%) of grassland will be conserved as a result of existing and proposed preserve design and application of the City's measures contained in Table 9. If San Diego ambrosia is found in Carlsbad, it will be conserved consistent with the standards for Narrow Endemics.</p>	<p>There are no known populations of this species in Carlsbad, and impacts consequently are not anticipated to occur. However, approximately 36% of the coastal sage scrub and 63% of grassland, which is potential habitat of the species, may be subject to impacts outside of preserve areas. Potential impacts may include direct or indirect impacts associated with edge effects and competition from other plants, and direct mortalities as a result of frequent or catastrophic fire events, or activities associated with fire suppression.</p>	<p>If any populations are found through subsequent surveys, the long-term preserve management plan shall provide area specific management directives, including specific adaptive management measures to protect constituent species to coastal sage scrub and grassland by minimizing edge effects associated with recreational impacts and urban development (e.g., trampling, vehicular traffic, dumping, invasive exotic species), enhancing small populations by introduction of appropriate plant materials as necessary, and protecting the species against frequent or catastrophic fires. Controlled burns (or other fuel modification methods) will be used at a frequency and level sufficient to preclude catastrophic fire events and stimulate regeneration of the population. Coastal sage scrub revegetation projects should consider including this species, where appropriate, in order to expand its range.</p>

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
<p><u>Rationale for Identifying Species as Covered:</u> The MHCP will adequately conserve this species by conserving 88% of point locations (all 4 locations are within the FPA) and 95% of the critical location and major population in Oceanside. About 51% of the potentially suitable habitat for the species will be conserved under the MHCP. The MHCP Narrow Endemic Policy is expected to protect any additional populations found in the future. The Subarea Plan meets the take authorization for this species due to conservation of large percentages of coastal sage scrub and grassland, (i.e., 54 % of total habitat in the City) the preferred habitat of the species; the size, shape, and habitat diversity of lands in the preserve; application of the City's measures contained in Table 9; and specific management measures intended to reduce threats to potentially occurring populations.</p>			
<p>Del Mar Manzanita <i>Arctostaphylos glandulosa</i> var. <i>crassifolia</i> FE / None List 1B, RED 3-3-1 MHCP Narrow Endemic</p>	<p>The MHCP will adequately conserve this species by conserving 72% of potential habitat, 96% of point locations (120 of 145 locations are within the FPA), and 97% of critical locations and major populations. The Subarea Plan will conserve approximately 300 acres of southern maritime chaparral, mostly in existing or proposed hardline conservation areas, including a substantial proportion (80% and 92% respectively vs. p 4-29 92% and 98%) of the two major populations in the vicinity of Agua Hedionda Lagoon and Green Valley/Olivenhain in core areas #6 and #8, and other populations found in the City through the designation of the species as a Narrow Endemic. An estimated 353 acres (88%) of southern maritime chaparral will be conserved as a result of existing and proposed preserve design and application of the City's measures contained in Table 9.</p>	<p>An estimated 15% of the major populations of this species in Carlsbad may be subject to impacts outside preserve areas. In addition, approximately 48 acres (12%) of southern maritime chaparral, the preferred habitat of this species, may be subject to impacts outside preserve areas. Potential impacts to conserved populations may include direct or indirect impacts associated with edge effects, and direct mortalities as a result of frequent or catastrophic fire events, or activities associated with fire suppression.</p>	<p>The long-term preserve management plan shall provide area specific management directives for the two major populations of Del Mar manzanita (and all conserved minor populations) in Carlsbad, including specific measures to address the autoecology and natural history of the species. Management measures will focus on minimizing edge effects associated with urban development (e.g., trampling, vehicular traffic, dumping, invasive exotic species) and protecting the species against frequent or catastrophic fires. Controlled burns (or other fuel reduction methods) will be used at a frequency and level sufficient to preclude catastrophic fire events and stimulate regeneration of the population.</p>
<p><u>Rationale for Identifying Species as Covered:</u> The MHCP will adequately conserve this species by conserving 72% of potential habitat, 96% of point locations (120 of 145 locations are within the FPA), and 97% of critical locations and major populations. The MHCP Narrow Endemic Policy is expected to protect any additional populations found in the future. The Subarea Plan meets take authorization standards for this species due to substantial conservation of major populations and habitat; the size, shape, and habitat diversity of lands in the preserve that support or are adjacent to conserved, major populations; application of the City's measures contained in Table 9, which include avoidance of this species in biological core and linkage areas; and specific management measures intended to reduce identified threats to conserved populations.</p>			
<p>Encinitas Baccharis <i>Baccharis vanessae</i></p>	<p>The MHCP will adequately conserve this species by conserving 71% of potential</p>	<p>All known occurrences of this species in Carlsbad will be conserved by the plan. An</p>	<p>The long-term preserve management plan shall provide area specific management directives</p>

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
FT/ CE List 1B, RED 2-3-2 MHCP Narrow Endemic	habitat, 99% of point locations (20 of 21 locations are within the FPA), and 99% of critical locations and major populations, The Subarea Plan will conserve approximately 300 acres of southern maritime chaparral and 700 acres of other chaparral types, the major population on the slopes above Green Valley within an existing hardline conservation area, and other populations found in the City through designation of the species as a Narrow Endemic. An estimated 1,054 acres of potential habitats for this species will be conserved as a result of existing preserve design and application of the City's measures contained in Table 9.	estimated 317 acres of preferred habitats for this species (48 acres of southern maritime chaparral and 269 acres of other chaparral types) may be subject to impacts outside preserve areas. Potential impacts to conserved populations may include direct or indirect impacts associated with edge effects, and direct mortalities as a result of frequent or catastrophic fire events, or activities associated with fire suppression.	for the 1 known major population of encinitas baccharis in Carlsbad, including specific measures to address the autoecology and natural history of the species, enhance small populations by introduction of appropriate plant materials as necessary, and maintain an appropriate ration between male and female plants. Management measures will focus on minimizing edge effects associated with urban development (e.g., trampling, vehicular traffic, dumping, invasive exotic species) and protecting the species against frequent or catastrophic fires. Controlled burns (or other fuel reduction methods) will be used at a frequency and level sufficient to preclude catastrophic fire events and stimulate regeneration of the population.
<p><u>Rationale for Identifying Species as Covered:</u> The MHCP will adequately conserve this species by conserving 71% of potential habitat, 99% of point locations (20 of 21 locations are within the FPA), and 99% of critical locations and major populations. The MHCP Narrow Endemic Policy is expected to protect any additional populations found in the future. This species is on the Subarea Plan list of Narrow Endemics. This species meets the take authorization standards due to complete (100%) conservation of the major population and its habitat; the size, shape, and habitat diversity of lands in the preserve that support or are adjacent to the conserved, major population; application of the City's measures contained in Table 9, which include avoidance of this species in biological core and linkage areas; and specific management measures intended to reduce identified threats to the conserved population.</p>			
Thread-leaved Brodiaea <i>Brodiaea filifolia</i> FT/ CE List 1B, RED 3-3-3 MHCP Narrow Endemic	The MHCP may contribute to the conservation of this species within the area by conserving 93% of point locations (55 of 70 locations are within the FPA) and conserving the 92% of the critical locations and major populations within the study area. Although the conservation level for known locations in the study area is high, this assumes strict implementation of the narrow endemic policy, and only 27% of the potentially suitable habitat in the study area will be conserved. The Subarea Plan will conserve: vernal pool habitat and grassland habitat within preserve	All of the identified major populations in Carlsbad will be conserved by the plan. An estimated 1,140 acres (63%) of grassland habitat may be subject to impacts outside preserve areas; however, this species is restricted to mesic areas within grasslands (or vernal pools). Potential impacts to conserved populations may include direct or indirect impacts associated with edge effects, loss or alteration of the watershed, and direct mortalities as a result of fire or activities associated with fire suppression.	The long-term preserve management plan shall provide area specific management directives for the 5 known major populations (and all conserved minor populations) of thread-leaved brodiaea in Carlsbad, including specific adaptive management measures to protect against detrimental edge effects from adjacent development, recreational impacts, and other direct and indirect impacts. This may require fencing. Management of edge effects will be particularly important for the Calavera Heights and the Carrillo Ranch populations. Preserve areas will be managed to control access, limit

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
	areas; the four major populations at Calavera Heights, Carlsbad Highlands, Rancho Carrillo, and Fox property, as well as smaller populations at Newton Business Center, and Fieldstone Northwest; and other populations found in the City through designation of the species as a Narrow Endemic. A substantial acreage of grassland habitat (667 acres, 37%) and vernal pools (100%) will be conserved as a result of existing preserve design and application of the City's measures contained in Table 9. Within grassland habitat, however, this species is restricted to mesic locations.		disturbance, limit chemical use within vicinity, and control nonnative competitive species. In addition, the watershed surrounding conserved populations will be conserved to maintain appropriate hydrological conditions for the species. To the extent feasible, populations will also be protected from fires and disturbances associated with fire suppression. Finally, small or declining populations will be enhanced by transplantation/introduction of corms, as necessary. Outside of preserve areas, focused surveys will be conducted during the appropriate season on habitats that may support this species, (grasslands on clay soils).
<p><u>Rationale for Identifying Species as Covered:</u> The MHCP may contribute to the conservation of this species within the area by conserving 93% of point locations (55 of 70 locations are within the FPA) and conserving the 92% of the critical locations and major populations within the study area. Although the conservation level for known locations in the study area is high, this assumes strict implementation of the narrow endemic policy, and only 27% of the potentially suitable habitat in the study area will be conserved. The Subarea Plan meets the take authorization standards for this species due to complete (100%) conservation of major populations; additional protection afforded wetland habitat by federal and state regulations; the City's no-net-loss of wetlands policy and application of measures contained in Table 9; and specific management measures intended to reduce identified threats to conserved populations.</p>			
Wart-stemmed Ceanothus <i>Ceanothus verrucosus</i> FSC / None List 1B, RED 2-2-1	The MHCP will adequately conserve this species by conserving 71% of potential habitat, 75% of point locations (130 of 173 locations are within the FPA), and 78% of the major populations. Most conserved populations are in relatively large and connected habitat blocks that contribute to species viability. The Subarea Plan will conserve approximately 300 acres of southern maritime chaparral and approximately 700 acres of other chaparral habitats within the City, substantial percentages of the major populations in the vicinity of Agua Hedionda Lagoon (approximately 95%), Green Valley (approximately 95%), and Palomar Airport Road (approximately 78%) in Core area #6, Linkage F and Core area #8. An estimated	An estimated 10% of individuals in the major populations in Carlsbad may be subject to impacts outside preserve areas. Additional acreage of potential habitat for this species may be subject to impacts outside preserve areas. Potential impacts to conserved populations may include direct or indirect impacts associated with edge effects, and direct mortalities or population declines as a result of frequent fire events.	Management measures will focus on minimizing edge effects associated with urban development (e.g., trampling, vehicular traffic, dumping, and invasive exotic species). The long-term preserve management plan shall provide area specific management directives for the 3 known major populations of wart-stemmed ceanothus in Carlsbad, including specific measures to address the autoecology and natural history of the species and to reduce the risk of catastrophic fire. Adaptive management measures to accomplish this may include controlled burns (or other fuel reduction methods), which will be used at a frequency and level sufficient to stimulate regeneration of the population. Revegetation of any chaparral areas should consider use of this

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
	1,054 acres (77%) of the potential habitat for this species will be conserved as a result of existing preserve design and application of the City's measures contained in Table 9.		species.

Rationale for Identifying Species as Covered: The MHCP will adequately conserve this species by conserving 71% of potential habitat, 75% of point locations (130 of 173 locations are within the FPA), and 78% of the major populations. Most conserved populations are in relatively large and connected habitat blocks that contribute to species viability. The Subarea Plan meets the take authorization standards for this species because of substantial conservation of major populations (90%) and habitat (77%); the size, shape, and habitat diversity of lands in the preserve that support or are adjacent to conserved, major populations; application of the City's measures contained in Table 9; and specific management measures intended to reduce identified threats to conserved populations.

Summer Holly <i>Comarstaphylis diversifolia</i> ssp. <i>diversifolia</i> FSC / None List 1B RED Code 2-2-2	The MHCP will adequately conserve this species by conserving 70% of potential habitat, 60% of point locations (125 of 210 locations are within the FPA), and 65% of major populations. Some of the conserved populations are in relatively intact and connected habitat blocks. Conserve approximately 300 acres of southern maritime and approximately 700 acres of other chaparral habitats within the City. The Subarea Plan will conserve at least 75% of the major population in the vicinity of Agua Hedionda Lagoon within Core area #6 and Linkage F. An estimated 701 acres (72%) of potential habitat for this species will be conserved as a result of existing preserve design and application of the City's measures contained in Table 9.	An estimated 24% of the major population in Carlsbad may be subject to impacts outside preserve areas. In addition, approximately 269 acres (28%) of preferred habitat for this species may be subject to impacts outside preserve areas. Potential impacts to the conserved population may include direct or indirect impacts associated with edge effects, and direct mortalities as a result of frequent fires.	Management measures will focus on minimizing edge effects associated with urban development (e.g., trampling, vehicular traffic, dumping, invasive exotic species). The long-term preserve management plan shall provide area specific management directives for the one known major population and any other conserved populations of summer holly in Carlsbad, including specific measures to address the autoecology and natural history of the species and to reduce the risk of catastrophic fire. Controlled burns (or other fuel reduction methods) will be used at a frequency and level sufficient to stimulate regeneration of the population. Revegetation of any chaparral areas should consider restoration of this species.
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Rationale for Identifying Species as Covered: The MHCP will adequately conserve this species by conserving 70% of potential habitat, 60% of point locations (125 of 210 locations are within the FPA), and 65% of major populations. Some of the conserved populations are in relatively intact and connected habitat blocks. Conserve approximately 300 acres of southern maritime and approximately 700 acres of other chaparral habitats within the City. The Subarea Plan meets the take authorization standards for this species due to substantial conservation of the major population (76%) and habitat (72%); the size, shape, and habitat diversity of lands in the preserve that support or are adjacent to conserved, major populations; application of the City's measures contained in Table 9; and specific management measures intended to reduce identified threats to conserved populations.

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
Del Mar Mesa Sand Aster <i>Corethrogyne filaginifolia</i> var. <i>linifolia</i> FSC / None List 1B, RED 3-3-3 MHCP Narrow Endemic	The MHCP may contribute to the conservation of this species within the area by conserving 49% of potential habitat and 60% of point locations (3 of 5 locations are within the FPA). The major and critical population in Oceanside and the critical population in Carlsbad are in 50% and 75% FPAs, respectively. The Subarea Plan will conserve approximately 300 acres of southern maritime chaparral, including the two major populations in the vicinity of Agua Hedionda Lagoon and Green Valley/Olivenhain, and other populations found in the City through designation of the species as a Narrow Endemic. An estimated 353 acres (88%) of southern maritime chaparral will be conserved as a result of existing preserve design and application of the City's measures contained in Table 9.	Although no major populations of this species in Carlsbad will be subject to impacts outside preserve areas, some smaller populations will (approximately five of eight mapped occurrences). In addition, approximately 48 acres (12%) of southern maritime chaparral, may be subject to impacts outside the preserve areas. Potential impacts to conserved populations may include direct or indirect impacts associated with edge effects, and direct mortalities as a result of frequent or catastrophic fire events, or activities associated with fire suppression.	Management measures will focus on minimizing edge effects associated with urban development (e.g., trampling, vehicular traffic, dumping, invasive exotic species). Management will include enhancing small populations or restoring extirpated populations by introduction of appropriate plant materials as necessary, and using this species in revegetation programs where appropriate. The long-term preserve management plan shall provide area specific management directives for the one known major population and any other conserved populations of Del Mar Mesa sand aster in Carlsbad, including specific measures to address the autoecology and natural history of the species and to reduce the risk of catastrophic fire. Controlled burns (or other fuel modification methods) will be used at a frequency and level sufficient to preclude catastrophic fire events and stimulate regeneration of the population.
<p><u><i>Rationale for Identifying Species as Covered:</i></u> The MHCP may contribute to the conservation of this species within the area by conserving 49% of potential habitat and 60% of point locations (3 of 5 locations are within the FPA). The major and critical population in Oceanside and the critical population in Carlsbad are in 50% and 75% FPAs, respectively. The Subarea Plan meets take authorization standards for this species because the one major known population will be conserved in Green Valley within a hardline conservation area and habitat of this species is adequately conserved (i.e., 88% of southern maritime chaparral); the size, shape, and habitat diversity of lands in the preserve that support or are adjacent to conserved populations; application of the City's measures contained in Table 9, which include avoidance of this species in biological core and linkage areas; and specific management measures intended to reduce identified threats to conserved populations.</p>			
Sticky Dudleya <i>Dudleya viscida</i> FSC / None List 1B, RED 3-3-3	The MHCP will contribute to the conservation of this species within the area by conserving 66% of potential habitat, 74% of point locations (19 of 25 locations are within the FPA), and 74% of critical location and major population in Oceanside. The Subarea Plan	The entire major population of this species in Carlsbad is included in the existing preserve design, and no individuals in this population are considered subject to take. Potential impacts to the conserved population may include direct or indirect impacts associated with edge effects, and	The long-term preserve management plan shall provide area specific management directives for the one known major and critical population of sticky dudleya and any newly discovered populations in Carlsbad, including specific adaptive management measures to

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
	will conserve the major population along San Marcos Creek within an existing hardline conservation area.	direct mortalities as a result of frequent or catastrophic fire events.	protect against detrimental edge effects to the conserved population (e.g., trampling, vehicular traffic, dumping); this may require fencing. Population(s) also will be protected from fires.
<p><i>Rationale for Identifying Species as Covered:</i> The MHCP will contribute to the conservation of this species within the area by conserving 66% of potential habitat, 74% of point locations (19 of 25 locations are within the FPA), and 74% of critical location and major population in Oceanside. The Subarea Plan meets the take authorization standards for this species due to complete conservation of the one major population in the City; the size, shape, and habitat diversity of lands in the preserve that support and are adjacent to the conserved, major population; application of the City's measures contained in Table 9; and specific management measures intended to reduce identified threats to the conserved population.</p>			
<p>San Diego Button-Celery <i>Eryngium aristulatum</i> var. <i>parishii</i> FE / CE List 1B, RED 2-3-2 MHCP Narrow Endemic Obligate Wetlands Species</p>	<p>The MHCP will contribute to the conservation of this species within the area by conserving 96% of point locations (14 of 17 locations are within the FPA) and 93% of the critical locations and major populations in the study area. The Carlsbad major population and critical location at Poinsettia Lane will be conserved at 100%. The portion of the San Marcos major population and critical location within the study area will be conserved at 85%, but over 75% of this population occurs in the San Marcos Major Amendment Area and is not addressed in this plan. The Subarea Plan will conserve vernal pool habitat per the City's wetland Policy, the major population in the vernal pools near Poinsettia Lane, and other populations found in the City through designation of the species as a Narrow Endemic. All of the identified vernal pools in Carlsbad will be conserved as a result of existing preserve design and application of the City's measures contained in Table 9. The vernal pool habitat where this population is known to occur is protected in a conservation easement that resulted from the 404 and 2081</p>	<p>The one major population in Carlsbad will be conserved entirely by the plan. Potential impacts to the conserved population may include direct or indirect impacts associated with edge effects and loss or alteration of the watershed.</p>	<p>The long-term preserve management plan shall provide area specific management directives for the one known major population of San Diego button-celery in Carlsbad, including specific adaptive management measures to protect vernal pools and their watersheds against detrimental edge effects to the conserved population (e.g., trampling, vehicular traffic, dumping, invasive exotic species). This will require: fencing; limiting pesticide, herbicide, and other chemical use in the vicinity; eradicating nonnative, competitive species; and preventing water pollution. In addition, the watershed surrounding the Poinsettia Lane population needs to be conserved to maintain appropriate hydrological conditions and pollinators for the species. Finally, declining populations may be enhanced via introduction of appropriate plant materials, as necessary.</p>

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
	permits for the NCTD Poinsettia Lane Commuter Rail Station project.		
<p><u><i>Rationale for Identifying Species as Covered:</i></u> The MHCP will contribute to the conservation of this species within the area by conserving 96% of point locations (14 of 17 locations are within the FPA) and 93% of the critical locations and major populations in the study area. The Carlsbad major population and critical location at Poinsettia Lane will be conserved at 100%. The portion of the San Marcos major population and critical location within the study area will be conserved at 85%, but over 75% of this population occurs in the San Marcos Major Amendment Area and is not addressed in this plan. The Subarea Plan meets the take authorization standards for this species due to the conservation of the identified, major population and its habitat; additional protection afforded wetland habitat (including watersheds) by federal regulations; the City's no-net-loss of wetlands policy and application of measures contained in Table 9; and specific management measures intended to reduce identified threats to conserved populations.</p>			
San Diego Barrel Cactus <i>Ferocactus viridescens</i> FSC / None List 2, RED 1-3-1	The MHCP will adequately conserve this species by conserving 62% of potential habitat, 88% of point locations (28 of 32 locations are within the FPA), and 86% of the critical location and major population in Encinitas. The Subarea Plan will conserve approximately 300 acres of southern maritime chaparral, as well as 700 acres of other chaparral habitats and 2,000 acres of coastal sage scrub. An estimated 3,200 acres (67%) of coastal sage scrub, chaparral and southern maritime chaparral will be conserved as result of existing preserve design and application of the City's measures contained in Table 9.	Given that the only known population within the City occurs within an existing hardline conservation area, no impacts to this species are expected to occur. However, approximately 33% of coastal sage scrub, chaparral and southern maritime chaparral, which is potential habitat of the species, may be subject to impacts outside of preserve areas. Potential impacts may include direct or indirect impacts associated with edge effects, and direct mortalities as a result of frequent or catastrophic fire events, or activities associated with fire suppression.	The long-term preserve management plan shall provide area specific management directives for the one known population of San Diego barrel cactus and any newly discovered populations in Carlsbad, including specific adaptive management measures to protect constituent species to coastal bluff scrub and maritime succulent scrub by minimizing edge effects associated with urban development (e.g., trampling, vehicular traffic, dumping, invasive exotic species) and protecting the species against frequent or catastrophic fires. Controlled burns (or other fuel modification methods) will be used at a frequency and level sufficient to preclude catastrophic fire events and stimulate regeneration of the population. Plants should be salvaged from impact areas where the impact cannot be avoided, and transplanted into appropriate habitat.
<p><u><i>Rationale for Identifying Species as Covered:</i></u> The MHCP will adequately conserve this species by conserving 62% of potential habitat, 88% of point locations (28 of 32 locations are within the FPA), and 86% of the critical location and major population in Encinitas. The Subarea Plan meets the take authorization for this species due to conservation of the one known population south of Palomar Airport Road within an existing hardline conservation area; conservation of large percentages of the preferred habitat of the species (i.e., 67% of coastal sage scrub, chaparral and southern maritime chaparral); the size, shape and habitat diversity of lands in the preserve; application of the City's measures contained in Table 9; and specific management measures intended to reduce threats to potentially occurring populations.</p>			

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
San Diego Marsh Elder <i>Iva hayesiana</i> FSC / None List 2, RED 2-2-1	<p>The MHCP will adequately conserve this species by conserving 100% of potential habitat and 75% of point locations (3 of 4 locations are within the FPA). The major population and critical location on San Marcos Creek in San Marcos will be conserved at 100%, but the portion of this major and critical population on Encinitas Creek in San Marcos is not conserved. Although only 50% of the major and critical population is currently considered conserved within the FPA, application of the MHCP critical location and wetland policies will increase the level of protection for this population. The Subarea Plan will conserve approximately 1,000 acres of cismontane alkali marsh, freshwater marsh, and disturbed wetlands and assure no net loss of these types within the City, and an estimated 70% of the two major populations along San Marcos Creek and Encinitas Creek within existing hardline conservation areas. Determination of conserved habitat is difficult for this species, because it has the potential to occur in limited areas of several habitat types. Nonetheless, it is estimated that 14 acres (100%) of the most likely habitat for this species (cismontane alkali marsh) will be conserved as a result of existing preserve design and application of the City's measures contained in Table 9. In addition, 293 acres (80%) of other potential habitat types (189 acres [88%] of freshwater marsh and 104 acres [68%] of disturbed wetland) will be similarly conserved by the plan.</p>	<p>An estimated 30% of the individuals in the major populations in Carlsbad may be subject to impacts outside preserve areas. Although habitat impacts are difficult to quantify, all of the cismontane alkali marsh (14 acres), the preferred habitat for this species, is conserved by the plan. An estimated 74 acres (20%) of other potential habitats for this species (25 acres [12%] of freshwater marsh and 49 acres [32%] of disturbed wetland) may be subject to impacts outside preserve areas. Potential impacts to conserved populations may include direct or indirect impacts associated with edge effects and loss or alteration of the watershed. In addition, clearing of vegetation in stream channels for flood control may remove a yet unquantified amount of this species' populations or individuals.</p>	<p>The long-term preserve management plan shall provide area specific management directives for the two known major and critical populations of San Diego marsh elder and any newly discovered populations in Carlsbad, including specific adaptive management measures to protect wetlands against detrimental edge effects, control access, limit disturbance, limit chemical use within vicinity, and control nonnative competitive species. In addition, the watershed surrounding the conserved populations needs to be conserved to maintain appropriate hydrological conditions for the species. Finally, enhancement of declining populations via introduction of appropriate plant materials may be conducted, as necessary. This may be particularly important for the San Marcos Creek population. This species should be considered for use in wetland restoration projects where soil and water conditions are appropriate.</p>
<u>Rationale for Identifying Species as Covered:</u> The MHCP will adequately conserve this species by conserving 100% of potential habitat and 75% of point locations (3 of 4			

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
locations are within the FPA). The major population and critical location on San Marcos Creek in San Marcos will be conserved at 100%, but the portion of this major and critical population on Encinitas Creek in San Marcos is not conserved. Although only 50% of the major and critical population is currently considered conserved within the FPA, application of the MHCP critical location and wetland policies will increase the level of protection for this population. The Subarea Plan meets the take authorization standards for this species because of substantial conservation of major populations 70%); the most potential habitat (100%); and other potential habitat (80%), in conjunction with additional protection afforded wetland habitat by federal and state regulations; the City's no-net-loss of wetlands policy and application of measures contained in Table 9; and specific management measures intended to reduce identified threats to conserved populations.			
Little Mousetail <i>Myosurus minimus</i> ssp. <i>apus</i> FSC / None List 3, RED 2-3-2 MHCP Narrow Endemic Obligate Wetlands Species	The MHCP will adequately conserve this species by conserving 93% of the potentially suitable habitat and 100% of the one known critical location and major population in Carlsbad. The MHCP Narrow Endemic Policy is expected to protect any additional populations found in the future. The Subarea Plan will conserve vernal pool habitat per the City's wetland policy, the population near Poinsettia Lane, and other populations found in the City through designation of the species as a Narrow Endemic. All of the identified vernal pools containing this species in Carlsbad will be conserved as a result of the existing preserve design and application of the City's measures contained in Table 9. The vernal pool habitat in which the documented population occurs is protected in a conservation easement that resulted from the 404 and 2081 permits on the NCTD Poinsettia Lane Commuter Rail Station. In addition, other identified vernal pool habitat on the Manzanita Partners project site east of El Camino Real is proposed as hardline open space. In addition, vernal pool habitat not identified by this plan will be afforded additional protection through federal wetlands regulations, in conjunction with the City's no-net-loss of wetlands policy and application of measures contained in Table 9.	The one major population in Carlsbad will be conserved entirely by the plan. Potential impacts to the conserved population may include direct or indirect impacts associated with edge effects and loss or alteration of the watershed.	The long-term preserve management plan shall provide area specific management directives for the one known major population of little mousetail in Carlsbad, including specific adaptive management measures to minimize edge effects to the conserved population (e.g., trampling, vehicular traffic, dumping, invasive exotic species). This may require fencing; limiting pesticide, herbicide, and other chemical use in the immediate vicinity; eradicating nonnative, competitive species; conserving adjacent watershed habitat containing pollinators; and preventing water pollution. In addition, the watershed surrounding the Poinsettia Lane population needs to be conserved to maintain appropriate hydrological conditions for the species. Finally, declining populations may be enhanced via introduction of appropriate plant materials, as necessary.

COMMON NAME SCIENTIFIC NAME STATUS (Federal / State)	EXPECTED CONSERVATION	POTENTIAL IMPACTS	MONITORING AND/OR MANAGEMENT PLANS / DIRECTIVES
<p><i>Rationale for Identifying Species as Covered:</i> The MHCP will adequately conserve this species by conserving 93% of the potentially suitable habitat and 100% of the one known critical location and major population in Carlsbad. The MHCP Narrow Endemic Policy is expected to protect any additional populations found in the future. The Subarea Plan meets the take authorization standards for this species due to complete (100%) conservation of the identified, major population and its habitat; additional protection afforded wetland habitat by federal and state regulations; the City's no-net-loss of wetlands policy and application of measures contained in Table 9; and specific management measures intended to reduce identified threats to conserved populations.</p>			
<p>Spreading Navarretia <i>Navarretia fossalis</i> FT / None MHCP Narrow Endemic, Obligate Wetlands Species</p>	<p>The MHCP will contribute to the conservation of this species within the area by conserving 88% of point location (2 of 5 locations are within the FPA) and 93% of critical locations and major populations in the study area. Only 41% of the mapped vernal pool habitat (9 of 22 acres) is within the FPA. The critical location and major population at Poinsettia Lane in Carlsbad will be 100% conserved. Although 85% of the San Marcos critical location and major population within the study area will be conserved, 29 acres of vernal pool habitat occurs in the San Marcos Major Amendment Area and are not addressed by this plan. The Subarea Plan will conserve vernal pool habitat per the City's wetland policy, the single known population near Poinsettia Lane, and other populations found in the City through designation of the species as a Narrow Endemic. All of the identified vernal pools containing spreading navarretia in Carlsbad will be conserved as a result of the existing preserve design and application of the City's measures contained in Table 9. The vernal pool habitat in which the population occurs is in an existing conservation easement that was established as a result of the 404 and 2081 permit processes for the NCTD Poinsettia Lane Commuter Rail Station project. In addition, vernal pool habitat not identified by this plan will be afforded additional protection through federal wetlands regulations, in conjunction with the</p>	<p>The one major population in Carlsbad will be conserved entirely by the plan. Potential impacts to the conserved population may include direct or indirect impacts associated with edge effects and loss or alteration of the watershed.</p>	<p>The long-term preserve management plan shall provide area specific management directives for the one known major population of spreading navarretia in Carlsbad, including specific adaptive management measures to protect vernal pools and their watersheds against detrimental edge effects (e.g., trampling, vehicular traffic, dumping, invasive exotic species). This will require: fencing; limiting pesticide, herbicide, and other chemical use in the vicinity; eradicating nonnative, competitive species; and preventing water pollution. In addition, the watershed surrounding the Poinsettia Lane population needs to be conserved to maintain pollinators and appropriate hydrological conditions for the species. Finally, declining populations may be enhanced via introduction of appropriate plant materials, as necessary.</p>

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	City's no-net-loss of wetlands policy and application of measures contained in Table 9.		
<p><i>Rationale for Identifying Species as Covered:</i> The MHCP will contribute to the conservation of this species within the area by conserving 88% of point location (2 of 5 locations are within the FPA) and 93% of critical locations and major populations in the study area. Only 41% of the mapped vernal pool habitat (9 of 22 acres) is within the FPA. The critical location and major population at Poinsettia Lane in Carlsbad will be 100% conserved. Although 85% of the San Marcos critical location and major population within the study area will be conserved, 29 acres of vernal pool habitat occurs in the San Marcos Major Amendment Area and are not addressed by this plan. The Subarea Plan meets the take authorization standards for this species due to complete (100%) conservation of the one identified, major population and its habitat within the city; additional protection afforded wetland habitat by federal regulations; the City's no-net-loss of wetlands policy and application of measures contained in Table 9; and specific management measures intended to reduce identified threats to conserved populations.</p>			
<p>California Orcutt Grass <i>Orcuttia californica</i> FE / CE List 1B, RED 3-3-2 MHCP Narrow Endemic, Obligate Wetlands Species</p>	<p>The MHCP will adequately conserve this species by conserving 100% of the one known critical location and major population in Carlsbad. The MHCP Narrow Endemic Policy is expected to protect any additional populations found in the future. The Subarea Plan will conserve vernal pool habitat per the City's wetland policy, the one major population of this plant located south of the Poinsettia Commuter Rail Station, and other populations found in the City through designation of the species as a Narrow Endemic. All of the identified vernal pools containing California Orcutt grass in Carlsbad will be conserved as a result of the existing preserve design and application of the City's measures contained in Table 9. The vernal pool habitat in which the population occurs is in an existing conservation easement that is the result of the NCTD Commuter Rail Station 404 and 2081 permitting processes. In addition, vernal pool habitat not identified by this plan will be afforded additional protection through federal wetlands regulations, in conjunction with the City's no-net-loss of wetlands policy and application of measures</p>	<p>The one major population in Carlsbad will be conserved entirely by the plan. Potential impacts to the conserved population may include direct or indirect impacts associated with edge effects and loss or alteration of the watershed.</p>	<p>The long-term preserve management plan shall provide area specific management directives for the one known major population of California Orcutt grass in Carlsbad, including specific adaptive management measures to minimize edge effects to the conserved population (e.g., trampling, vehicular traffic, dumping, invasive exotic species). This will require: fencing; limiting pesticide, herbicide, and other chemical use in the immediate vicinity; eradicating nonnative, competitive species; and preventing water pollution. In addition, the watershed surrounding the Poinsettia Lane population needs to be conserved to maintain appropriate hydrological conditions for the species. Finally, declining populations may be enhanced via introduction of appropriate plant materials, as necessary.</p>

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	contained in Table 9.		
<p><u>Rationale for Identifying Species as Covered:</u> The MHCP will adequately conserve this species by conserving 100% of the one known critical location and major population in Carlsbad. The MHCP Narrow Endemic Policy is expected to protect any additional populations found in the future. The Subarea Plan meets the take authorization standards for this species due to complete (100%) conservation of the one identified, major population and its habitat within the city; additional protection afforded wetland habitat by federal regulations; the City's no-net-loss of wetlands policy and application of measures contained in Table 9; and specific management measures intended to reduce identified threats to conserved populations.</p>			
<p>Torrey Pine <i>Pinus torreyana</i> FSC / None List 1B, RED 3-2-3</p>	<p>The MHCP will adequately conserve this species by conserving 77% of potential habitat and 65% of point locations (18 of 27 locations are within the FPA). The plan protects the great majority of naturally occurring (not planted) trees within relatively large blocks of natural habitat. The Subarea Plan will conserve approximately 300 acres of southern maritime chaparral mostly in existing or proposed hardline conservation areas within the City. Torrey pine woodland does not occur in Carlsbad. No major populations or critical locations of this species occur in Carlsbad. This species is known from two locations in Carlsbad. One of these consists of scattered individuals, while the other is apparently a tree farm or plantation. Both locations are in areas proposed for conservation. The major population center for this species lies south of Carlsbad, along the coast of San Diego County near Del Mar, where the majority of naturally-occurring Torrey Pine trees is protected and managed in Torrey Pines State Reserve.</p>	<p>All of the individuals identified in Carlsbad will be conserved by the plan. Torrey pine woodland has not been mapped in Carlsbad; however, the species can occur scattered in southern maritime chaparral. An estimated 48 acres (12%) of southern maritime chaparral in Carlsbad may be subject to impacts outside preserve areas.</p>	<p>Preserve areas will be managed to monitor for insect infestations.</p>
<p><u>Rationale for Identifying Species as Covered:</u> The MHCP will adequately conserve this species by conserving 77% of potential habitat and 65% of point locations (18 of 27 locations are within the FPA). The plan protects the great majority of naturally occurring (not planted) trees within relatively large blocks of natural habitat. The Subarea Plan meets the take authorization standards for this species because of the complete conservation of individuals, conservation of a substantial portion of potential habitat (88%); and</p>			

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application of the City's measures contained in Table 9.			
Engelmann Oak <i>Quercus engelmannii</i> None / None List 4, RED 1-2-2	The MHCP will adequately conserve this species by conserving 82% of potential habitat, 83% of point locations (66 of 79 locations are within the FPA), and 84% of the critical locations and major populations. The Subarea Plan will conserve oak woodland and assure no net loss of oak woodland in the City, and conserve 4 of 5 mapped individuals in the City. A significant amount of oak woodland in Carlsbad will be conserved as a result of the existing preserve design and application of the City's no-net-loss of oak woodlands policy and measures contained in Table 9. However, this acreage includes little, if any, Engelmann oak woodland.	Of the five documented occurrences of this species in Carlsbad, one may be subject to impacts outside preserve areas. In addition, an estimated 2 acres (7%) of oak woodlands in Carlsbad may be subject to impacts outside preserve areas. However, this acreage includes little, if any, Engelmann oak woodland.	Preserve areas will be managed to protect against disturbance and fires. Management of Engelmann oaks within the preserve will fall under the guidelines of the City's oak protection policy.
<u>Rationale for Identifying Species as Covered:</u> The MHCP will adequately conserve this species by conserving 82% of potential habitat, 83% of point locations (66 of 79 locations are within the FPA), and 84% of the critical locations and major populations. The Subarea Plan meets the take authorization standards for this species because of the substantial conservation of individuals (80%); application of the City's no-net-loss of oak woodlands policy and measures contained in Table 9; and specific management measures intended to reduce identified threats to conserved populations.			
INVERTEBRATES			
San Diego Fairy Shrimp <i>Branchinecta sandiegonensis</i> FE / None MHCP Narrow Endemic, Obligate Wetlands Species	The MHCP may help ensure persistence of San Diego fairy shrimp in the area and contribute to regional genetic diversity for the species, although this will require intensive management and monitoring. Only about 41% (9 of 22 acres) of mapped vernal pool habitat in the study area (excluding the San Marcos Major Amendment Area) is within the FPA. However, the one known population and critical location in the MHCP (the Carlsbad	Because 100% of San Diego fairy shrimp population is conserved by the Subarea Plan, and any newly discovered vernal pools are protected by measures contained in Table 9, no direct impacts to this species are expected to occur. Indirect impacts to this species could result from adverse changes in hydrology and the level of contaminants entering vernal pool watersheds. Potential indirect threats to the San Diego fairy shrimp will be minimized by site-specific	The long-term preserve management plan shall provide area specific management directives for the one known major population of San Diego fairy shrimp in Carlsbad, including specific adaptive management measures to protect vernal pools and their watersheds against detrimental edge effects; prohibiting the introduction of pesticides and other pollutants into vernal pools and vernal pool watersheds; protecting vernal pools from

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	<p>Poinsettia vernal pools) will be 100% conserved and managed. The other known population and critical location is in the San Marcos Major Amendment Area, whose 29 acres of vernal pool habitat are not addressed in the MHCP. It's uncertain whether management can overcome deleterious effects of habitat fragmentation on the species' metapopulation dynamics and genetic integrity, even if no further take is allowed. The Subarea Plan will conserve known vernal pool habitat containing fairy shrimp, the only known major/critical population in the planning area (Poinsettia Lane pools), and other populations found in the City through designation of the species as a Narrow Endemic. The Subarea Plan conserves 100% of known San Diego fairy shrimp locations in the City. The City's no-net-loss of wetlands policy, in conjunction with City guidelines requiring avoidance of vernal pool resources, will ensure that any additional occupied vernal pools that are discovered outside of preserve areas will be conserved. Federal and state wetlands regulations provide additional protection to vernal pool resources.</p>	management measures.	off-road vehicles and other activities that can crush eggs and destroy vernal pool habitat; and managing the watersheds surrounding vernal pools to maintain water quality and vernal pool hydrology, in particular the watershed of the Poinsettia Lane vernal pools.
<p><i>Rationale for Identifying Species as Covered:</i> The MHCP may help ensure persistence of San Diego fairy shrimp in the area and contribute to regional genetic diversity for the species, although this will require intensive management and monitoring. Only about 41% (9 of 22 acres) of mapped vernal pool habitat in the study area (excluding the San Marcos Major Amendment Area) is within the FPA. However, the one known population and critical location in the MHCP (the Carlsbad Poinsettia vernal pools) will be 100% conserved and managed. The other known population and critical location is in the San Marcos Major Amendment Area, whose 29 acres of vernal pool habitat are not addressed in the MHCP. It's uncertain whether management can overcome deleterious effects of habitat fragmentation on the species' metapopulation dynamics and genetic integrity, even if no further take is allowed. The City is seeking take authorization for indirect impacts and for accidental direct impacts to the species. The Subarea Plan meets take authorization standards for this species due to the conservation of all known San Diego fairy shrimp locations (100%); additional protection afforded wetland habitat by federal and state regulations; the City's no-net-loss of wetlands policy and application of measures contained in Table 9 which protects this species as a Narrow Endemic; and specific management measures intended to reduce identified threats to conserved populations.</p>			
Riverside Fairy Shrimp	The MHCP may help ensure persistence of	Because 100% of known Riverside fairy shrimp	The long-term preserve management plan shall

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<p>(<i>Streptocephalus woottoni</i>) FE / None MHCP Narrow Endemic, Obligate Wetlands Species</p>	<p>the Riverside fairy shrimp in the area and contribute to regional genetic diversity, although this will require intensive management and monitoring. Only about 41% (9 of 22 acres) of mapped vernal pool habitat in the study area is within the FPA. An additional 29 acres are mapped within the San Marcos Major Amendment Area, which is not addressed in this plan. Both known species location points in the MHCP area are conserved at the Poinsettia pools in Carlsbad, which is a critical location. The species has not been recorded in the San Marcos pools. The MHCP Narrow Endemic Policy is expected to protect any additional populations found in the future. However it is uncertain whether management can overcome deleterious effects of habitat fragmentation on the species' metapopulation dynamics and genetic integrity, even if no further take is allowed. The Subarea Plan will conserve the one known major/critical population in the City (Poinsettia Lane Commuter Rail Station pools), and vernal pool habitat in conjunction with the City's no net loss of wetlands policy. The Subarea Plan proposes to conserve 100% of known Riverside fairy shrimp habitat. The City's no-net-loss of wetlands policy, in conjunction with City guidelines requiring avoidance of vernal pool resources, will ensure that any additional vernal pools containing Riverside fairy shrimp that are discovered outside of preserve areas will be conserved. Federal and state wetlands regulations provide additional protection to vernal pool resources.</p>	<p>habitat will be conserved by the Subarea Plan, and any newly discovered vernal pools containing Riverside fairy shrimp are protected by measures contained in Table 9, no direct impacts to this species are expected to occur. Indirect impacts to this species could result from adverse changes in hydrology and the level of contaminants entering vernal pool watersheds. Potential indirect threats to the Riverside fairy shrimp will be minimized by site-specific management measures.</p>	<p>provide area specific management directives for the one known major population of Riverside fairy shrimp in Carlsbad, including specific adaptive management measures to protect vernal pools and their watersheds against detrimental edge effects; prohibiting the introduction of pesticides and other pollutants into vernal pools and vernal pool watersheds; protecting vernal pools from off-road vehicles and other activities that can crush eggs and destroy vernal pool habitat; managing the watersheds surrounding vernal pools to maintain water quality and vernal pool hydrology, in particular, the watershed of the Poinsettia Lane vernal pools.</p>

Rationale for Identifying Species as Covered: The MHCP may help ensure persistence of the Riverside fairy shrimp in the area and contribute to regional genetic diversity, although this will require intensive management and monitoring. Only about 41% (9 of 22 acres) of mapped vernal pool habitat in the study area is within the FPA. An

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			<p>additional 29 acres are mapped within the San Marcos Major Amendment Area, which is not addressed in this plan. Both known species location points in the MHCP area are conserved at the Poinsettia pools in Carlsbad, which is a critical location. The species has not been recorded in the San Marcos pools. The MHCP Narrow Endemic Policy is expected to protect any additional populations found in the future. However it is uncertain whether management can overcome deleterious effects of habitat fragmentation on the species' metapopulation dynamics and genetic integrity, even if no further take is allowed. The City is seeking take authorization for indirect impacts and for accidental direct impacts to the species. The Subarea Plan meets take authorization standards for this species due to the conservation of all known Riverside fairy shrimp locations; additional protection afforded wetland habitat by federal and state regulations; the City's no-net-loss of wetlands policy and application of measures contained in Table 9 which seek to conserve newly discovered populations within the City; and specific management measures intended to reduce identified threats to conserved populations.</p>
<p>FSC = Federal Species of Concern FE = Federal Endangered FT = Federal Threatened CSC = California Species of Concern CE = California Endangered CT = California Threatened FP = California Fully Protected</p>			