

**CALIFORNIA  
DEPARTMENT OF FISH AND WILDLIFE  
FINDINGS OF FACT**

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

**AND**

**NATURAL COMMUNITY CONSERVATION PLAN**

**PERMIT**

**(2835-2020-001-02)**

**for the**

**Western Placer County Habitat Conservation Plan/  
Natural Community Conservation Plan**

**October 2020**

**FINDINGS AND NCCP PERMIT**

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# BACKGROUND

## 1.0 INTRODUCTION

This document sets forth findings and the approval of the California Department of Fish and Wildlife (CDFW) for the Western Placer County Habitat Conservation Plan/Natural Community Conservation Plan (Plan). In approving the Plan as provided for in the California Natural Community Conservation Planning Act (NCCPA), Fish and Game Code Sections 2800–2835, CDFW is acting as a responsible agency under the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq. Unless otherwise noted in this document, capitalized terms have the same definitions as in the Plan.

### 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” (Section 2820(a)(3)), while allowing “compatible and appropriate economic development, growth, and other human uses” (Section 2805(h)). In authorizing the NCCPA, the Legislature declared, in part, that an NCCP provides one option for ensuring appropriate mitigation that is roughly proportional to impacts on fish and wildlife, and promotes the conservation of broad-based natural communities and species diversity (Section 2801(d)). When it approves an NCCP, CDFW may authorize the “take” of species whose conservation and management is provided for in the NCCP, including species listed as endangered, threatened, or candidate under the California Endangered Species Act (CESA), Section 2050 et seq., or species designated as fully protected and included in Sections 3511, 4700, 5050, and 5515.

The NCCPA was originally enacted in 1991<sup>1</sup> and later amended in 1993<sup>2</sup>, 1994<sup>3</sup>, 1996<sup>4</sup>, and 2000.<sup>5</sup> The NCCPA was repealed and replaced in 2002 by Senate Bill (SB) 107<sup>6</sup>, which codified a number of CDFW’s administrative standards and practices for NCCP development and implementation, and added some new requirements. It was amended again in 2003<sup>7</sup> and in 2011<sup>8</sup>. With the revisions, many of the substantive standards and mandatory elements for an NCCP formerly contained in guidelines prepared by CDFW are now found in Section 2820. In 2011, changes were made to Sections 2805 and 2835 to allow for the take of fully protected species included as covered species in an NCCP.

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<sup>1</sup>Statutes 1991, chapter 765, section 2, page 3424 (A.B. 2172).

<sup>2</sup>Statutes 1993, chapter 708, section 1, page 4034 (S.B. 755).

<sup>3</sup>Statutes 1994, chapter 220, section 1, page 1778 (S.B. 1352).

<sup>4</sup>Statutes 1996, chapter 593, sections 1 and 2, page 2702 (A.B. 3446).

<sup>5</sup>Statutes 2000, chapter 87, sections 1-3, page 1207 (S.B. 1679).

<sup>6</sup>Statutes 2002, chapter 4, sections 1 and 2, page 81 (S.B. 107). Minor housekeeping changes were subsequently enacted as part of S.B. 2052 (Stats. 2002, ch. 133, §§ 1 and 2, page 568).

<sup>7</sup>Statutes 2003, chapter 61, section 1, page 95 (S.B. 572).

<sup>8</sup>Statutes 2011, chapter 596, section 2, page 89 (S.B. 618).

## **1.2 Western Placer County Habitat Conservation Plan/Natural Community Conservation Plan**

The purpose of the Plan is to provide an effective framework to protect, enhance, and restore the natural resources in western Placer County, while streamlining environmental permitting for Covered Activities. Within this framework, the Plan will achieve conservation goals for certain special status species and natural communities, comply with state and federal environmental regulations, accommodate anticipated urban and rural growth, and permit the construction and maintenance of needed infrastructure.

The Plan has been prepared as an NCCP pursuant to the NCCPA, and as an HCP pursuant to Section 10(a)(1)(B) of the federal Endangered Species Act (ESA). Upon approval of the Plan, the United States Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), and CDFW (collectively, the Wildlife Agencies) authorize the take of certain listed species and other non-listed species (collectively referred to as the Covered Species), subject to the Plan terms of coverage. Except as otherwise noted, all references to tables, figures, and text sections pertain to those in the Plan.

The Plan is one of three separate but complementary components that comprise the larger Placer County Conservation Program (PCCP). The second component is the Western Placer County Aquatic Resources Plan (CARP) which will protect streams, wetlands, and other water resources and fulfill the requirements of the federal Clean Water Act and analogous state laws and regulations. The PCCP's third component is the In-Lieu Fee Program which will allow requirements under Section 404 of the Clean Water Act to be fulfilled by payment of a fee for compensatory mitigation of impacts on aquatic resources from activities covered under the Plan and the CARP.

### **Permittees**

The Plan was prepared by the local agencies that will become Permittees, in cooperation with state and federal resource agencies. The Permittees are the entities requesting take authorization under the NCCPA and include:

- Placer County,
- City of Lincoln,
- South Placer Regional Transportation Authority (SPRTA),
- Placer County Water Agency (PCWA),
- Placer Conservation Authority (PCA; created to implement the Plan on behalf of the other Permittees), and
- Other parties who may elect to seek coverage under the Plan as "Participating Special Entities".

### **Resource Agencies**

Resource Agencies are the state and federal agencies regulating components of the PCCP, these include Wildlife Agencies and Water Resource Agencies. Wildlife Agencies are the permitting agencies under the federal ESA and the NCCPA and include:

- CDFW,

- USFWS, and
- NMFS, a division of the National Oceanic and Atmospheric Administration.

Water Resource Agencies are the permitting or overseeing agencies under the state Porter-Cologne Water Quality Control Act and the federal Clean Water Act. Water Resource Agencies include:

- Central Valley Regional Water Quality Control Board (CVRWQCB),
- U.S. Army Corps of Engineers (ACOE), and
- U.S. Environmental Protection Agency (EPA).

### Plan Area

The Plan Area includes western Placer County and specific conservation activity areas in neighboring Sutter County. Western Placer County refers to approximately 261,000 acres, ranging from California State Route 49 westward to Sutter and Sacramento Counties. The Plan Area is comprised of two separate plan areas, Plan Area A and Plan Area B (Figure 1-2).

Plan Area A includes the City of Lincoln and unincorporated Placer County, which are the two general land use authorities under the Plan. Plan Area A is the focus of the Plan and the location where all permitted future growth and most of the Covered Activities will take place. Plan Area A includes the City of Lincoln, plus all unincorporated lands within western Placer County (approximately 210,000 acres). Plan Area A is comprised of the following two components:

- Valley – The Valley portion (100,698 acres) of Plan Area A includes the City of Lincoln and unincorporated western Placer County below roughly 200 feet in elevation.
- Foothills – The Foothills portion (109,134 acres) of Plan Area A includes unincorporated western Placer County above roughly 200 feet in elevation.

Plan Area A is further subdivided into the following three components which span both the Valley and Foothills:

- Reserve Acquisition Area (RAA) – 68,325 acres (44,095 acres in the Valley; 24,230 acres in the Foothills)
- Potential Future Growth Area (PFG) – 125,799 acres (46,933 acres in the Valley; 78,866 acres in the Foothills)
- Existing Reserves and Protected Areas (EXR) – 16,031 acres (9,843 acres in the Valley; 6,188 acres in the Foothills)

Plan Area B includes multiple additional areas within Non-participating Cities in western Placer County and adjacent Sutter County where the Permittees may implement specific public projects and/or conservation actions. The cities of Auburn, Loomis, Rocklin, and Roseville are not Permittees and are referred to as the Non-participating Cities. Plan Area B is comprised of the following five components:

- B1 – Permittee Activity carrying out public project in Non-participating City jurisdiction (50,636 acres),

- B2 – PCWA Zone 1 Operations and Maintenance (6,315 acres),
- B3 – Racoon Creek Floodplain Conservation (1,724 acres),
- B4 – Fish Passage Channel Improvement (559 acres, 32.9 miles of stream channel), and
- B5 – Big Gun Conservation Bank (52 acres).

### Covered Activities

The Covered Activities are the activities within the Plan Area that will be covered by the final permits and for which the Plan will provide avoidance, minimization, and mitigation for impacts on Covered Species and natural communities. Covered Activities include programs or actions that occur repeatedly in one location or throughout the permit area as well as projects, which are well-defined actions that occur once in a discrete location. Together, these programs, actions, and projects are the Covered Activities for which incidental take authorization from the Wildlife Agencies will be obtained.

A range of Covered Activities are addressed by the Plan. These activities are widespread and varied including urban and rural development, water management, conservation measures, facilities maintenance, and numerous other actions that are undertaken by the Permittees or by individuals or entities under their jurisdiction. All parties seeking coverage for activities and projects under the Plan must obtain approval from the Permittee with jurisdiction over the activity (see Chapter 6, *Program Participation and Conditions on Covered Activities*). Not all activities will be covered everywhere in the Plan Area. The relationship between a Covered Activity category and a Plan Area component is illustrated in Table 2-3. All Covered Activities have been analyzed in Chapter 4, *Effects of Covered Activities*, unless specifically identified as not covered.

To help organize and describe Covered Activities within the Plan, the following seven categories of Covered Activities were developed based on both geographic boundaries or features and program goals:

1. Valley PFG
2. Valley Conservation and Rural Development
3. Foothills PFG
4. Foothills Conservation and Rural Development
5. Regional Public Programs
6. In-Stream Programs
7. Conservation Programs

The first four categories of Covered Activities encompass future growth and rural development in the Foothills and Valley in Plan Area A. They are defined geographically by mapped boundaries that reflect patterns of anticipated urban and rural-residential expansion and that implement the designation of the PFG and RAAs shown on Figure 1-5. The final three categories of Covered Activities occur throughout the Plan Area and overlap geographically with the other categories. These are defined primarily by similar habitat features (i.e., in-stream programs) or programmatic objectives (i.e., regional public programs and conservation programs).

Activities not covered by the Plan are listed fully in Plan Section 2.7 and include: ground disturbing activities within the jurisdiction of Non-participating Cities that are not specifically undertaken by a Permittee, present or future projects with their own ESA and/or CESA permits, routine and ongoing

agricultural activities, quarrying and other mining, and other minor activities on already developed land, on small existing parcels, of limited scope, or not requiring a permit or other discretionary authorization from a Permittee.

### Covered Species

The Plan will provide conservation for the following 14 Covered Species:

- Western burrowing owl (*Athene cunicularia hypugaea*) (State Species of Special Concern; Federal Bird Species of Conservation Concern, Migratory Bird Treaty Act)
- Tricolored blackbird (*Agelaius tricolor*) (State Threatened; Federal Bird Species of Conservation Concern, Migratory Bird Treaty Act)
- California black rail (*Laterallus jamaicensis coturniculus*) (State Threatened, State Fully Protected; Federal Bird Species of Conservation Concern, Migratory Bird Treaty Act)
- Swainson's hawk (*Buteo swainsoni*) (State Threatened; Federal Bird Species of Conservation Concern, Migratory Bird Treaty Act)
- Giant garter snake (*Thamnophis gigas*) (State Threatened; Federal Threatened)
- Western pond turtle (*Emys marmorata*) (State Species of Special Concern)
- California red-legged frog (*Rana draytonii*) (State Species of Special Concern; Federal Threatened)
- Foothill yellow-legged frog (Northern Sierra clade) (*Rana boylei*) (State Threatened)
- Central valley steelhead (California Central Valley Distinct Population Segment) (*Oncorhynchus mykiss irideus*) (Federal Threatened)
- Chinook salmon (Central Valley fall/late fall run) (*Oncorhynchus tshawytscha*) (State Species of Special Concern; Federal Species of Concern, Magnuson-Stevens Act Managed Species)
- Vernal pool tadpole shrimp (*Lepidurus packardii*) (Federal Threatened)
- Vernal pool fairy shrimp (*Branchinecta lynchi*) (Federal Threatened)
- Conservancy fairy shrimp (*Branchinecta conservatio*) (Federal Threatened)
- Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) (Federal Threatened)

### Natural Communities

The Plan uses the terms land-cover type, community, and constituent habitat to classify and describe the biological and land use setting of the Plan Area.

*Land-cover type* is the dominant feature of the land surface discernible from aerial photographs and defined by vegetation, water, or human uses and serves as the basic mapping unit. Land-cover types are modeled after the California Wildlife Habitat Relationship system adapted to better describe the mosaic of agricultural and urban uses in the Plan Area.

*Community* in the context of the Plan means land-cover types that are grouped together because of similarity in vegetation type, vegetation structure, ecological function, and current land use. This plan recognizes four types of communities: natural communities (e.g., vernal pool complex, riverine/riparian complex, oak woodland), semi-natural communities (e.g., rice, field crop), other agriculture (e.g., orchards and vineyards), and urban (non-natural) communities.

*Constituent habitats* are wetlands (e.g., vernal pool wetland, fresh emergent marsh, riverine) or other patches of habitat (riparian, grassland) that are not directly mapped at the Plan-scale and their presence is inferred by association with land-cover types.

The community mapping for Plan Area A reflects the environmental setting prevailing during the Plan's planning period and accordingly, the Wildlife Agencies have set 2011 as the baseline year for evaluating covered effects. The mapping is a compilation of Placer County data and aerial photo interpretation, offering sufficient accuracy for regional scale planning. Application of the Plan to future projects will be based on detailed site-specific vegetation mapping, wetland delineation, and species surveys where applicable.

The Plan recognizes four types of communities: natural communities, semi-natural communities, other agriculture, and urban (non-natural) communities. The organization of the communities is as follows:

- Natural Communities
  - Grassland
  - Vernal Pool Complex
  - Aquatic/Wetland Complex
  - Riverine/Riparian Complex
  - Valley Oak Woodland
  - Oak Woodland
- Semi-natural Communities
  - Rice
  - Field Crop
- Other Agriculture
  - Orchard and Vineyard
- Urban and Non-natural Communities
  - Managed Open Water
  - Rural Residential
  - Urban

### Conservation Strategy

The Plan will provide for conservation of landscapes, natural and semi-natural communities, and Covered Species. The conservation strategy defines overarching biological goals; sets measurable objectives, including quantified geographic acquisition targets; and defines implementation actions that will achieve the biological goals at all three levels: landscape, community, and species. The Plan's conservation strategy has four (4) main components:

1. Reserve System. The Plan proposes to progressively establish a large system of interconnected blocks of land. The reserve system will provide a means for protecting, managing, enhancing, and restoring or creating the natural and semi-natural communities and habitats that support the Covered Species.
2. Stream Protection, Enhancement, and Avoidance. The Plan designates the Stream System to protect and enhance Covered Species' habitats, water quality, and maintain connectivity in the reserve system. In-stream enhancement actions include removal or modification of barriers to

fish passage, screening water diversions, improvement of in-channel features, and non-native fish control.

3. Wetland Conservation and No Overall Net Loss of Wetland Values and Functions. The Plan provides for protection, enhancement, restoration, and creation of the aquatic/wetland complex natural community including the surrounding upland necessary to sustain the wetlands' hydrological function. The Plan anticipates loss of wetlands, including vernal pool wetlands. Restoration and creation of wetlands will provide in-kind compensatory habitat.
4. Avoidance and Minimization. Covered Activities will avoid and minimize take by complying with specific conditions that apply to certain communities and species including take limits that apply cumulatively to all activities covered under the permits. Conservation measures on the reserve lands and implementation of the conservation strategy will accomplish avoidance and minimization on a regional scale; project site-specific avoidance and minimization will be focused only on specific resources.

The Plan's conservation strategy was designed in accordance with principles of conservation biology and considers the recommendations of a group of Independent Science Advisors convened at the beginning of the planning process in 1997 (Brussard et al. 2004). The strategy addresses regional conservation needs at a descending level of scale, identifies biological goals and objectives to encompass ecological processes, environmental gradients, biological diversity, connectivity between habitat patches, and proposed conservation measures to implement these goals and objectives.

#### Permit Term

The permit term is the time period in which all Covered Activities can receive take authorization under the Plan, consistent with the requirements of the Plan. The permit term is a 50-year duration that will commence on the date the NCCP permit and Implementing Agreement (IA) are executed. The permit term will allow for the full and successful implementation of the Covered Activities, conservation strategy, monitoring and adaptive management program, and the funding strategy.

### **1.3 Implementing Agreement**

CDFW plans to execute an HCP/NCCP IA with the USFWS, NMFS, and Permittees, concurrently with its issuance of this NCCP Permit. The IA is designed to ensure the implementation of the Plan, to bind each party to the terms of the Plan, and to provide remedies and recourse for failure to adhere to the terms of the Plan. This NCCP Permit specifically applies to the Plan as implemented pursuant to the IA.

CDFW finds that the Plan and IA provide the necessary assurances that the Plan will be carried out by Permittees. By accepting the NCCP Permit, Permittees are bound to fully implement the provisions of the Plan in accordance with the IA and this NCCP Permit.

## ADMINISTRATIVE RECORD

### 2.0 ADMINISTRATIVE RECORD OF PROCEEDINGS

For purposes of these findings, the administrative record of proceedings for CDFW's discretionary issuance of this NCCP Permit consists, at a minimum, of the following documents, except where privileges prevent their disclosure.

- Any Plan related materials prepared by Permittees and submitted to CDFW.
- Any staff reports and related documents prepared by CDFW with respect to its compliance with CEQA and with respect to the issuance of an NCCP Permit for the Plan.
- Any written testimony or documents submitted by any person to CDFW relevant to these findings and CDFW's discretionary actions with respect to the Plan.
- Any notices issued to comply with CEQA, the NCCPA, or with any other law relevant to and governing the processing and approval of this NCCP Permit by CDFW.
- Any written comments received by CDFW in response to, or in connection with, environmental documents prepared for this project.
- All written evidence or correspondence submitted to, or transferred from, CDFW with respect to compliance with CEQA and with respect to the Plan.
- Any proposed decisions or findings related to the Plan submitted to CDFW by its staff, Permittees, Plan supporters and opponents, or other persons.
- The documentation of the final decision by CDFW, including all documents cited or relied on in these findings adopted pursuant to CEQA and the NCCPA.
- Any other written materials relevant to CDFW's compliance with CEQA or CDFW's decision on the merits with respect to the NCCP Permit for the Plan, including any draft environmental documents that were released for public review, and copies of studies or other documents relied upon in any environmental document prepared for the project and either made available to the public during a public review period or included in CDFW's files on the Plan, and all non-privileged internal agency communications, including staff notes and memoranda related to the Plan or compliance with CEQA.
- Matters of common knowledge to CDFW, including but not limited to federal, state, and local laws and regulations.
- Any other materials required to be in CDFW's administrative record of proceedings by Public Resources Code Section 21167.6(e).

The custodian of the documents comprising the administrative record of proceedings is CDFW, located at 1010 Riverside Parkway, West Sacramento, California 95605. All related inquiries should be directed to the Habitat Conservation Planning Branch at (916) 376-8660.

CDFW has relied on all of the documents listed in this section in exercising its independent judgment and reaching its decision with respect to the Plan, even if every document was not formally presented to CDFW or its staff as part of the CDFW files generated in connection with the Plan. Without exception, any documents set forth above not found in CDFW's files for the Plan fall into one of two categories. The

first category includes documents that reflect prior planning or legislative decisions of which CDFW was aware when approving the Plan (see *City of Santa Cruz v. Local Agency Formation Comm.* (1978) 76 Cal.App.3d 381, 391–392; *Dominey v. Department of Personnel Administration* (1988) 205 Cal.App.3d 729, 738, fn. 6). The second category includes other documents that influence the expert advice of CDFW staff, which then provided advice to the decision-makers at CDFW with respect to the NCCP Permit for the Plan. For that reason, such documents form part of the underlying factual basis for CDFW’s decision related to the Plan (see Public Resources Code, Section 21167.6(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).

## **FINDINGS OF FACT**

### **3.0 FINDINGS UNDER CEQA**

#### **3.1 Environmental Documents**

Placer County is the CEQA lead agency for purposes of the Plan and has completed environmental review and approval of the Plan (see generally Public Resources Code Section 21067; California Code of Regulations, Title 14, Section 15367). Placer County analyzed the environmental effects of implementing the Plan.

Pursuant to CEQA, Public Resources Code Section 21000 et seq., and California Code of Regulations, Title 14, Section 15000 et seq. (CEQA Guidelines), Placer County determined that an Environmental Impact Report (EIR) consisting of a Draft EIR, a Final EIR and appendices would be prepared for the proposed project (i.e., the Plan). CDFW concurs with that determination.

Placer County as lead agency prepared the Plan that it approved on September 1, 2020 and a Final EIR that it certified on the same day. The EIR is a joint EIR/Environmental Impact Statement (EIS) that Placer County prepared along with USFWS as the NEPA lead agency. Specifically, Placer County prepared: the Plan and associated Appendices A through N, and the Placer County Conservation Program Final EIS/EIR and Appendices A through I. The State Clearinghouse Number for the EIS/EIR is SCH No. 2005032050. In analyzing and approving the Plan and certifying the EIS/EIR, Placer County “consider(ed) the effects, both individual and collective, of all activities involved in a (the) project” (Public Resources Code, Section 21002.1(d)).

Regarding its compliance under CEQA, Placer County issued a Notice of Preparation (NOP), which was circulated to responsible agencies and interested groups and individuals for review and comment on March 10, 2005. The NOP was circulated through the State Clearinghouse to notify responsible agencies, trustee agencies, and interested parties as well as being publicly posted at the Placer County Planning Department. In addition, public scoping meetings were held on March 15, March 16, and March 17 of 2005 with verbal and written comments being accepted. By the close of the scoping period, comment letters from seven organizations/individuals had been received.

Placer County then filed a Notice of Availability (NOA) with the State Clearinghouse upon completion of the Draft EIS/EIR. Placer County distributed the NOA and the Draft EIS/EIR to interested agencies, organizations, and individuals for review and made the Draft EIS/EIR available for public review at the offices of the County Clerk, City of Lincoln, PCWA, and SPRTA. In addition, the documents were available for review on the County's website and at public libraries. The public review period began on June 21, 2019 and concluded on August 20, 2019. Placer County held two public workshops during the public review period, one on Thursday August 1st at the Placer County Planning Commission Hearing Room and the second on Thursday August 15th at the Lincoln City Hall. Written comments were accepted at both public workshops. Additionally, the Placer County Planning Commission accepted oral comments on the EIS/EIR from the public on Thursday August 8th at the Planning Commission Hearing Room. CDFW staff attended these public meetings and reviewed the Draft EIS/EIR.

Placer County received 49 comment letters on the Draft EIS/EIR during the public review period. Responses to comments were prepared by Placer County and changes made to the Draft EIS/EIR. The responses to comments, changes to the Draft EIS/EIR, and additional information were published in the Final EIS/EIR, dated May 22, 2020.

At all public meetings during the preparation of the Plan, Placer County staff and its consultants provided information about the proposed project, the potential environmental impacts, and the CEQA review process. At each meeting, members of the public had the opportunity to ask questions, provide written comments, and express their concerns and interests for the proposed project.

CDFW has prepared these findings to, in part, comply with CEQA. CDFW is a responsible agency under CEQA with respect to the Plan because of its authority under the NCCPA (see generally Public Resources Code Sections 21002.1(d) and 21069; CEQA Guidelines Section 15381; see also California Code of Regulations, Title 14 Section 783.3(a)). CDFW accordingly makes the findings, which appear in Section 3.5 below, under CEQA as part of its discretionary decision to approve the Plan and authorize take of species whose conservation and management are provided for in the Plan.

These findings pertain to the proposed project and the EIS/EIR prepared for the proposed project (SCH No. 2005032050). The Draft EIS/EIR, the Final EIS/EIR, and all appendices comprise the EIS/EIR referenced in these findings. The purpose of the EIS/EIR is to evaluate the potential for environmental effects from the adoption and implementation of the Plan and the issuance of take permits for species pursuant to the NCCPA. The EIS/EIR also evaluates the potential for environmental effects of the issuance of take authorizations pursuant to Section 10(a)(1)(B) of the Federal ESA.

### **3.2 CEQA 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 the CEQA mandate that no public agency shall approve or carry out a project for which an EIR has been certified that identifies one or more significant effects thereof unless the agency makes one or more of the following findings (Public Resources Code Section 21081, subdivision (a), CEQA Guidelines Section 15091, subdivision (a); see also CEQA Guidelines Section 15082, subdivision (b)(2).):

- (1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen 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(a); CEQA Guidelines Section 15091(a)).

These findings are also intended to comply with the requirement that each finding made by CDFW be supported by substantial evidence in the administrative record and be accompanied by a brief explanation of the rationale for each finding (CEQA Guidelines Section 15091(a) and (b)). To that end, these findings provide the written, specific reasons supporting CDFW's decisions under CEQA as they relate to the approval of the Plan under the NCCPA.

Because CDFW adopts these findings as a responsible agency, CDFW's analysis under CEQA are more limited than that of the lead agency (Public Resources Code Section 21167.2; CEQA Guidelines Section 15096(f)–(h)). In its capacity as a responsible agency, CDFW is also bound by the legal presumption that the EIR certified by Placer County fully complies with CEQA (Public Resources Code Sections 21167.2 and 21167.3; *City of Redding v. Shasta County Local Agency Formation Com* (1989), 209 Cal.App.3d 1169, 1178–1181; *Laurel Heights Improvement Association v. Regents of the University of California* (1993), 6 Cal.4th 1112, 1130; see also CEQA Guidelines Section 15231). In fact, CDFW is bound by the presumption of adequacy, except in extremely narrow circumstances (Public Resources Code Section 21167.2; CEQA Guidelines Section 15096(e) and (f)). CDFW concludes such circumstances do not exist in the present case based on substantial evidence in its administrative record for the NCCP Permit.

### **3.3 Scope of CEQA Findings**

As mentioned above, CDFW is a responsible agency under CEQA for purposes of approving the Plan because of its authority under the NCCPA and the lead agency's prior actions with respect to the project. As a responsible agency, CDFW's CEQA obligations are more limited than those of the lead agency (CEQA Guidelines Section 15096(g)(1)). CDFW, 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" (Public Resources Code Section 21002.1(d)). Thus, while CDFW must "consider the environmental effects" of the Plan as disclosed in the environmental documents described above, CDFW "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 Section 15096(f) and (g)(1)). Accordingly, because CDFW's exercise of discretion is limited to approval of the Plan and associated take authorizations, CDFW is responsible for considering only the environmental effects that fall within its authority under the NCCPA.

CDFW'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 by each public agency that approves a "project for which an EIR has been certified which identifies one or more significant effects on the

environment...” (Public Resources Code Section 21081(a); CEQA Guidelines Section 15091(a); see also Public Resources Code Section 21068 (“significant effect on the environment” defined); CEQA Guidelines Section 15382 (same)). Because Placer County certified the EIR in approving the Plan, the obligation to adopt findings under CEQA necessarily applies to CDFW as a responsible agency (CEQA Guidelines Section 15096(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(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 Section 15096(h)). The scope of this charge in the guidelines is governed by statutory language concerning the extent of responsible agency decision-making authority under CEQA. As noted above, the controlling statute provides that a “responsible agency shall be responsible for considering only the effects of those activities involved in a project which it is required by law to carry out or approve” (Public Resources Code Section 21002.1(d)). The same section underscores that the more limited scope of review for responsible agencies necessarily “applies only to decisions by a public agency to carry out or approve a project...” (Ibid.).

### **3.4 Legal Effect of the CEQA Findings**

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

### **3.5 CEQA Findings Regarding Potentially Significant Environmental Effects**

Placer County’s EIS/EIR for the Plan analyzed the following impacts: Biological Resources; Agricultural and Forestry Resources; Air Quality, Greenhouse Gasses, and Climate Change; Cultural and Paleontological Resources; Hydrology and Water Quality; Land Use and Planning; Mineral Resources; Noise and Vibration; Population and Housing, Socioeconomics, and Environmental Justice; Recreation; Transportation and Circulation; and the cumulative impacts associated with the overall Plan. Issues deemed to be not significant and not selected for detailed analysis included: Land Use and Planning, Mineral Resources, Recreation, and Population and Housing, Socioeconomics, and Environmental Justice.

The EIS/EIR identified multiple potentially significant environmental impacts that could result due to implementation of the Plan. Placer County determined in the EIS/EIR that implementation of the Plan would result in less than significant impacts to the following categories: Land Use and Planning; Mineral Resources; Recreation; and Population and Housing, Socioeconomics, and Environmental Justice. The County also determined in the EIS/EIR that implementation of the Plan (including but not limited to the Conservation Measures, Conditions on Covered Activities, and Monitoring Actions described in Chapters 5, 6, and 7 respectively) would result in less than significant impacts to the fourteen Covered Species

(EIS/EIR Chapter 4.3.2, *Alternative 2 – Proposed Action*). Potentially significant impacts to special-status plants and wildlife species not covered by the Plan will be reduced to a less-than-significant level through implementation of mitigation measures identified in the EIS/EIR (see Chapter 4.3.2 or Mitigation Monitoring and Reporting Program (MMRP)). Potentially significant impacts to Agricultural and Forestry Resources; Air Quality, Greenhouse Gases, and Climate Change; Cultural and Paleontological Resources; Hydrology and Water Quality; Noise and Vibration; and Transportation and Circulation are unavoidable under all action alternatives discussed in the EIS/EIR.

The EIS/EIR reiterates some of the information found in the Plan and incorporates by reference the conservation, avoidance, minimization, mitigation, and monitoring/reporting measures included in the Plan to be implemented by the Permittees and PCA (EIS/EIR Appendix A). The Plan discusses in detail specific incidental take minimization measures designed to avoid the mortality or injury of Covered Species individuals (Chapter 6). Avoidance and minimization measures (Conditions on Covered Activities) required in the Plan include, but are not limited to: General Conditions (Section 6.3.1); Conditions to Avoid and Minimize Effects on Specific Natural Communities (Section 6.3.2); Conditions to Avoid, Minimize, and Mitigate Effects on the Stream System (Section 6.3.3); Regional Public Programs (Section 6.3.4); Conditions to Minimize Effects on Covered Species (Section 6.3.5); and Reserve Management Conditions (Section 6.3.6).

The primary means of mitigating impacts associated with the Covered Activities and conserving Covered Species and associated natural communities is the preservation of high-quality habitat in accordance with the reserve design criteria outlined in Chapter 5 of the Plan. However, habitat enhancement, restoration, and creation are also important components of the conservation strategy. Some vegetation communities or land-cover types that will be lost to Covered Activities will be mitigated by conservation and/or management of the same or similar communities or land-cover types within the RAA. Habitat enhancement, restoration, and creation are intended to satisfy the goal of no net loss of certain resources (e.g., wetlands, breeding habitat for specific Covered Species). In other cases, restoration and enhancement will be used to supplement preservation to adequately mitigate the loss of vegetation communities or land-cover types. Definitions of enhancement, restoration, and creation can be found in Chapter 5 of the Plan.

The Plan will progressively establish a large system of interconnected blocks of land within the RAA. Over the proposed 50-year permit term, the PCA will acquire approximately 47,300 acres for natural and semi-natural community protection and restoration irrespective of loss (Table 5-2 and Table 5-3). Within that land, the PCA will restore at least 4,375 acres of natural communities independent of effects, and up to 6,220 acres will be restored if all allowable loss proposed under the Plan occurs (Table 5-4). These protected and restored lands will augment the approximately 16,000 acres of EXR. Cumulatively, 38 percent of the present natural and semi-natural landscape in Plan Area A (Figure 1-2) would ultimately be subject to conservation management under the Plan (Table 5-2).

Most species-specific conservation will be accomplished by protecting, restoring, and managing habitat at the natural community level. For some species, the management actions described in the overall landscape- and natural community-level conservation measures are sufficient to conserve or enhance the Covered Species in the Reserve System. For those species, no additional conservation measures were developed. In other instances, additional measures are necessary that address the specific habitat requirements of individual Covered Species. These additional conservation measures address species-

specific conservation elements that were not specifically addressed at the natural-community level. If species-specific biological goals and objectives were developed, they are listed at the beginning of each species narrative in Chapter 5 and are summarized in Table 5-8.

Management measures will be implemented at the landscape, natural community, and species-specific levels. These management measures address the processes, threats, and disturbances that affect both habitat and species. These measures will benefit all Covered Species and associated habitats and are described in the Conservation Measures in Chapter 5 of the Plan. Management measures will be periodically evaluated to ensure their effectiveness. The monitoring and adaptive management framework contained in Plan Chapter 7 will ensure compliance with the Plan, assess the status of Covered Species and natural communities within the Reserve System, and evaluate the effects of management actions such that the conservation strategy described in Chapter 5, *Conservation Strategy*, including the biological goals and objectives, are achieved.

The following section presents CDFW's responsible agency findings with respect to the potentially significant environmental effects related to issuance of the NCCP Permit to the Permittees. The NCCP Permit covers fourteen (14) listed and non-listed fish and wildlife species (referred to collectively as Covered Species) in the Plan (Table 1-1) and the EIS/EIR. The take of Covered Species is allowed under the NCCPA upon NCCP Permit issuance per Section 5.0 of this Permit and Findings.

CDFW hereby makes the following findings under CEQA with respect to the effects of the proposed take of Covered Species as contemplated in the Plan and EIS/EIR and as authorized under the NCCP Permit.

### **CEQA Findings for Covered Species**

#### **Impact 3.5.1**

Approval of the Plan authorized under the NCCP Permit could result in potentially significant adverse impacts on the Covered Species: Swainson's hawk, California black rail, western burrowing owl, tricolored blackbird, giant garter snake, western pond turtle, foothill yellow-legged frog, California red-legged frog, Central Valley steelhead - Distinct Population Segment, Central Valley fall/late fall-run Chinook salmon Evolutionarily Significant Unit, valley elderberry longhorn beetle, Conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp.

#### **Finding 3.5.1**

CDFW finds that Conservation Measures and Conditions on Covered Activities required in the Plan for the avoidance, minimization, and/or mitigation of the potentially significant impacts of the Plan on the Covered Species will reduce any such potentially significant adverse impacts to **below a level of significance** (Public Resources Code, Section 21081(a)(1); CEQA Guidelines, Section 15091(a)(1)).

### **Swainson's Hawk**

The CNDDDB lists 17 extant occurrences of Swainson's hawks nesting in the Plan Area, all in the Valley portion (CDFW 2020). Within the Plan Area, modeled Swainson's hawk nesting habitat includes riparian woodland, valley oak woodland, and eucalyptus landcover types in the Valley floor below 200 feet

elevation. The nesting habitat model does not capture single or small patches of trees, which is potentially suitable nesting habitat when it occurs amongst suitable foraging habitat. Modeled Swainson's hawk foraging habitat is defined by vernal pool complex, annual grassland, pasture, alfalfa, irrigated pasture, and row crop land-cover types. Foraging habitat is also restricted to the Valley floor (< 200 feet elevation). Plan Appendix D, *Species Accounts*, provides more detail on the status and distribution of the species throughout its range and the Plan Area.

Covered Activities would result in permanent and temporary impacts on Swainson's hawk in the Plan Area (EIS/EIR pg. 4.3-88, Impact BIO-21). Permanent impacts would not exceed 149 acres of nesting habitat (8% of nesting habitat in Plan Area A) and 16,267 acres of foraging habitat (30% of suitable habitat) (EIS/EIR Appendix H, Table H-2). Temporary impacts on Swainson's hawk habitat would not exceed 10 acres of nesting habitat and 602 acres of foraging habitat (EIS/EIR pg. 4.3-84, Impact BIO-21). These impacts would result primarily from urban/suburban development, rural residential development, transportation projects, and infrastructure projects. Implementation of Plan conservation actions may also temporarily disturb Swainson's hawk habitat in locations where grading, vegetation management, or other physical change to the habitat is required.

In addition to permanent and temporary habitat loss, Covered Activities have the potential to directly affect Swainson's hawk through injury and mortality. Construction-related activities would not be expected to result in direct mortality of adult or fledged Swainson's hawks if they were present in or near Covered Activities. However, if Swainson's hawks were to nest in or near a construction area, construction related activities, including equipment operation, noise, and visual disturbances, could affect nests or lead to their abandonment, potentially resulting in mortality of eggs and nestlings. Effects associated with construction include noise and visual disturbance caused by grading, contouring, and other ground-disturbing operations. Construction and subsequent maintenance-related noise and visual disturbances could mask calls and disrupt foraging and nesting behaviors. Additionally, the use of mechanical equipment during Covered Activities could cause the accidental release of petroleum or other contaminants that could affect Swainson's hawk foraging habitat.

Indirect effects are expected to result from increased vehicular traffic associated with the development of new roadways, causing mortalities; habitat fragmentation as a result of urban and rural development and the construction of new roads and other infrastructure; and the introduction, establishment, and spread of invasive plant species.

Implementation of the Plan will result in protection and restoration of riparian and valley oak woodland natural communities, for a total of 1,268 acres of modeled nesting habitat protected and 720 acres restored (EIS/EIR Appendix H, Table H-5). Additionally, the Plan will result in the protection and restoration of grasslands and vernal pool complexes, for a total of 17,003 acres of foraging habitat protected and 3,920 acres of foraging habitat restored (EIS/EIR Appendix H, Table H-5). Swainson's hawk habitat will be provided in a large, interconnected Reserve System that accommodates the large home range size for this species.

The protection, restoration, and management of Swainson's hawk habitat within the Plan Area would be supported by the relevant Landscape-, Community-, and Species-specific Goals, Objectives, and Conservation Measures (Plan Section 5.3), and the avoidance and minimization of impacts to Swainson's hawk would be accomplished through Conditions on Covered Activities from the Plan (EIS/EIR page 4.3-

89 and Plan Section 6.3), as well as the species-level monitoring actions described in Section 7.5.1 of the Plan.

CDFW finds that the natural community restoration and protection commitments together with the implementation of relevant Conservation Measures (Plan Section 5.3) and Conditions on Covered Activities (Plan Section 6.3) in the Plan Area will minimize and mitigate the impacts to Swainson's hawk to below a level of significance. In fact, as mentioned in the findings below related to the NCCPA, implementation of the aforementioned actions provides for the conservation of Swainson's hawk.

### **California Black Rail**

The CNDDDB lists three relatively recent occurrences (2005 to present) of California black rail in the Plan Area: one in the Valley portion of Plan Area B, and one each in the Valley and Foothill portions of the RAA in Plan Area A (CDFW 2020). Research conducted by the University of California, Berkeley documented multiple additional occurrences in the Valley portion of Plan Area A (Hall and Beissinger 2017). California black rail modeled habitat is defined as fresh emergent wetlands greater than 0.2 acres in the Plan Area. The scale of the land-cover data and mapping may be too coarse to specifically identify suitable year-round black rail habitat, but the estimated fresh emergent marsh component of mapped marsh complex land cover type is a reasonable measure of modeled habitat. Plan Appendix D, *Species Accounts*, provides more detail on the status and distribution of the species throughout its range and the Plan Area.

Implementation of the Covered Activities would result in permanent and temporary impacts on California black rail (EIS/EIR pg. 4.3-90, Impact BIO-22) (EIS/EIR Appendix H, Table H-2). Permanent impacts would not exceed 105 acres of modeled habitat (9% of the modeled habitat Plan Area A). These impacts would result primarily from urban/suburban development, rural residential development, transportation projects, and infrastructure projects. The impacts would be evenly split between the Valley and Foothill portions, with a small amount (5 acres) in Plan Area B.

Temporary impacts on California black rail habitat are estimated at 41 acres of modeled habitat (3% of the modeled habitat in Plan Area A). These temporary impacts would be associated with urban/suburban development, rural residential development, transportation construction, fuels management, vegetation management, infrastructure operations and maintenance, and infrastructure construction. Implementation of Plan conservation actions may also temporarily disturb California black rail habitat in locations where grading, vegetation management, or other physical change to the habitat is required.

In addition to habitat losses, Covered Activities have the potential to directly affect California black rails through injury and mortality. Operation of construction equipment may cause injury to or mortality of individuals. Risk would be greatest to eggs and nestlings susceptible to land-clearing activities through nest abandonment and increased exposure to the elements or to predators. Construction activities could temporarily fragment existing California black rail habitat; grading, filling, contouring, and other ground-disturbing operations could temporarily reduce the extent and functions supported by the affected habitat.

California black rail nesting behavior in the vicinity of proposed construction areas could be directly affected by Covered Activities. Effects associated with construction include noise, dust, and visual disturbance caused by grading, filling, contouring, and other ground-disturbing operations outside the project footprint but within 500 feet of it. Construction and subsequent maintenance-related noise and visual disturbances could mask calls, disrupt foraging and nesting behaviors, and reduce the functions of suitable nesting habitat for this species. The use of mechanical equipment during Covered Activities could cause the accidental release of petroleum or other contaminants that could affect black rails in the surrounding habitat. The inadvertent discharge of sediment or excessive dust adjacent to black rail habitat could also affect the species.

Indirect effects are expected to result from increased vehicular traffic associated with the development of new roadways, causing mortalities; runoff from developed areas that could degrade habitat; habitat fragmentation as a result of urban and rural development and the construction of new roads and other infrastructure; introduction, establishment, and spread of invasive plant and animal species; and increased predation rates, particularly on eggs and young, from domestic pets and invasive wildlife species.

With implementation of the Plan there will be protection and management of 256 acres and restoration of 175 acres of California black rail habitat (56% of modeled species habitat in Plan Area A) (EIS/EIR Appendix H, Table H-5). Additionally, the avoidance/minimization, protection, restoration, and management of California black rail habitat within the Plan Area would be supported by the relevant Landscape-, Community-, and Species-specific Goals, Objectives, Conservation Measures, and Conditions on Covered Activities from the Plan summarized on EIS/EIR page 4.3-91, as well as the species-level monitoring actions described in Section 7.5.3 of the Plan.

CDFW finds that the natural community restoration and protection commitments together with the implementation of relevant Conservation Measures (Plan Section 5.3) and Conditions on Covered Activities (Plan Section 6.3) in the Plan Area will minimize and mitigate the impacts to California black rail to below a level of significance. In fact, as mentioned in the findings below related to the NCCPA, implementation of the aforementioned actions provides for the conservation of California black rail.

### **Western Burrowing Owl**

The CNDDB lists five extant occurrences of burrowing owl in the Plan Area, all in the Valley (CDFW 2020). They occur primarily as overwintering birds in the Plan Area, though a pair nested and fledged young successfully in artificial burrows in 2012, 2013, and 2015 at the Swainson's Grassland Preserve (Wages pers. comm.). More recently, a population of owls has been identified within the Placer Vineyards Specific Plan area boundary, but breeding has not yet been confirmed by project monitoring (CDFW 2020). Modeled overwintering and nesting habitat for western burrowing owl includes these habitats within the western portion of the Plan Area below 200 feet in elevation: valley oak woodland, oak woodland savanna, vernal pool complex, annual grassland, alfalfa, pasture, and cropland. Appendix D, *Species Accounts*, of the Plan provides more detail on the status and distribution of the species throughout its range.

Implementation of the Covered Activities would result in permanent and temporary impacts on burrowing owl (EIS/EIR pg. 4.3-92, Impact BIO-23) (EIS/EIR Appendix H, Table H-2). Permanent impacts

would result in the loss of up to 16,444 acres of habitat (30% of suitable habitat in Plan Area A). These impacts would result primarily from urban/suburban development, rural residential development, transportation projects, and infrastructure projects. The impacts would occur almost entirely with the Valley portion of Plan Area A, with a smaller amount (200 acres) occurring in Plan Area B.

Temporary impacts on burrowing owl habitat would not exceed 609 acres (1% of suitable habitat in Plan Area A). These temporary impacts would be associated with urban/suburban development, rural residential development, transportation construction, fuels management, vegetation management, infrastructure operations and maintenance, and infrastructure construction. Implementation of Plan conservation actions may also temporarily affect burrowing owl habitat in locations where grading, vegetation management, or other physical change to the habitat is required.

In addition to habitat losses, Covered Activities have the potential to directly affect individual burrowing owls through injury and mortality. Operation of construction equipment may cause injury to or mortality of burrowing owls. Risk would be greatest to eggs and nestlings susceptible to land-clearing activities through burrow destruction, nest abandonment, and increased exposure to the elements or to predators. Construction activities could temporarily fragment existing burrowing owl habitat: grading, filling, contouring, and other initial ground-disturbing operations could temporarily reduce the extent and functions supported by the affected habitat.

Burrowing owl nesting behavior in the vicinity of proposed construction areas could be directly affected by Covered Activities. Effects associated with construction activities include noise, dust, and visual disturbance caused by grading, filling, contouring, and other ground-disturbing operations outside the project footprint but within 500 feet of it. Construction and subsequent maintenance-related noise and visual disturbances could mask calls, disrupt foraging and nesting behaviors, and reduce the functions of suitable nesting habitat for this species. The use of mechanical equipment during Covered Activities could cause the accidental release of petroleum or other contaminants that could affect burrowing owls in the surrounding habitat. The inadvertent discharge of sediment or excessive dust adjacent to burrowing owl habitat could also affect the species.

Indirect effects are expected to result from increased vehicular traffic associated with the development of new roadways, causing mortalities; runoff from developed areas that could degrade habitat; habitat fragmentation as a result of urban and rural development and the construction of new roads and other infrastructure; introduction, establishment, and spread of invasive plant and animal species; and increased predation rates, particularly on eggs and young, from domestic pets and invasive wildlife species.

With implementation of the Plan there will be the protection and management of 17,129 acres and restoration of 4,126 acres of burrowing owl habitat (EIS/EIR Appendix H, Table H-5). In addition, the protection, restoration, and management of western burrowing owl habitat within the Plan Area would be supported by the relevant Landscape-, Community-, and Species-specific Goals, Objectives, Conservation Measures, and Conditions on Covered Activities from the Plan summarized on EIS/EIR page 4.3-93, as well as the species-level monitoring actions described in Section 7.5.3 of the Plan.

CDFW finds that the natural community restoration and protection commitments together with the implementation of relevant Conservation Measures (Plan Section 5.3) and Conditions on Covered

Activities (Plan Section 6.3) in the Plan Area will minimize and mitigate the impacts to western burrowing owl to below a level of significance. In fact, as mentioned in the findings below related to the NCCPA, implementation of the aforementioned actions provides for the conservation of western burrowing owl.

### **Tricolored Blackbird**

The CNDDDB lists 14 extant occurrences (2008 to present) of tricolored blackbird in the Plan Area, all but one of which occur in the Valley portion of the Plan Area (CDFW 2020). The occurrence in the Foothills portion is at an elevation just above 300 feet. All the CNDDDB occurrences are either in the RAA or on EXR. The Tricolored Blackbird Portal (Information Center for the Environment 2016) documents 21 colony sites and aggregations in Plan Area A, of which 15 are active or recently active. Of the 15 active or recently active colony sites found in Plan Area A, 6 are in the RAA, 3 or 4 are protected in EXR, and 5 are in the PFG. Within the Plan Area, modeled tricolored blackbird nesting habitat includes the marsh complex land cover type below 300 feet elevation. Modeled foraging habitat for tricolored blackbird emphasizes the open cover below 300 feet elevation which is mapped as vernal pool complex, annual grassland, pasture, alfalfa, and cropland. While tricolored blackbird may forage in rural residential, urban golf courses, urban parks, and urban wetland, those rural residential and urban/suburban land-cover types are not included in modeled foraging habitat for tricolored blackbird. Plan Appendix D, *Species Accounts*, provides more detail on the status and distribution of the species throughout its range and the Plan Area.

The Plan's model for tricolored blackbird habitat distribution only includes areas below 300 feet in elevation; however, Airola et al. (2015a:65) found active colonies in the Sierra Nevada foothills up to 1,720 feet in elevation. The maximum elevation in the Plan Area is 1,600 feet. Tricolored blackbirds in the Sierra Nevada foothills have been observed primarily nesting in blackberry thickets (Airola et al. 2015b:97). The species is also known to nest in triticale, wheat, mustard, and milk thistle (Holyoak et al. 2014:5; Meese 2014:9). Using this information from Airola et al. (2015b) and Meese (2014), the EIS/EIR team modified the tricolored blackbird habitat distribution models used for analysis of nesting and foraging habitat in the Plan Area. A summary of the modified species habitat model used in the EIS/EIR can be found in Table 3.3-5 and is described further below.

The Plan model for tricolored blackbird nesting habitat included fresh emergent marsh up to 300 feet in elevation within the Plan Area. The model was modified for the EIS/EIR analysis to include: all fresh emergent marsh in the Plan Area, blackberry thickets in the foothills, and wheat and triticale. To estimate the extent of this nesting habitat in the foothills, the GIS dataset associated with CDFW's Northern Sierra Nevada Foothills Vegetation Project (Menke et al. 2011) was queried for the *Rubus armeniacus* vegetation alliance (Himalayan blackberry) in the Plan Area. Because the Plan's mapping data for croplands did not include crop types, crop type data for the Plan Area was obtained from the U.S. Department of Agriculture's CropScape—Cropland Data Layer (USDA 2009). These data did not include the weedy vegetation types the species is known to nest in, such as mustard and thistle, but did include triticale and wheat. Though crop types often change from year to year, the intent for this analysis is to provide an estimate of what these acreages could be in a given year. These modifications to the species habitat model used by the EIS/EIR team resulted in an additional 3,657 acres of modeled nesting habitat within the Plan Area (4,290 acres total).

The Plan's model for tricolored blackbird foraging habitat included vernal pool complex, grasslands, alfalfa, and cropland up to 300 feet in elevation in the Plan Area. The model was modified for the EIS/EIR analysis to include all of these land covers in the Plan Area and added rice. Rice is considered to be a preferred foraging habitat for tricolored blackbird (Shuford and Gardali 2008:440). These modifications to the species habitat model used by the EIS/EIR team resulted in an additional 43,978 acres of modeled foraging habitat within the Plan Area (104,952 acres total).

Covered Activities would result in permanent and temporary impacts on tricolored blackbird (EIS/EIR pg. 4.3-94, Impact BIO-24). Permanent impacts are estimated at 782 acres of nesting habitat (18% of total habitat in Plan Area A) and 22,268 acres of foraging habitat (21% of total habitat in Plan Area A) (EIS/EIS Appendix H, Table H-2). These impacts would result primarily from urban/suburban development, rural residential development, transportation projects, and infrastructure projects. Most of the impacts on nesting and foraging habitat (77% and 81%, respectively) would be in the Valley portion of the Plan Area.

Temporary impacts on tricolored blackbird habitat are estimated at 103 acres of nesting habitat and 836 acres of foraging habitat (EIS/EIS Appendix H, Table H-2). These temporary impacts would be associated with urban/suburban development, rural residential development, transportation construction, fuels management, vegetation management, infrastructure operations and maintenance, and infrastructure construction. Plan conservation actions may also temporarily disturb tricolored blackbird habitat in locations where grading, vegetation management, or other physical change to the habitat is required.

In addition to habitat losses, Covered Activities have the potential to directly affect tricolored blackbirds through injury and mortality. Operation of construction equipment may cause injury to or mortality of tricolored blackbirds. Risk would be greatest to eggs and nestlings susceptible to land-clearing activities through nest abandonment or increased exposure to the elements and to predators. Injury to or mortality of adults and fledged juveniles would not be expected because individuals would be expected to avoid contact with construction equipment. Construction activities could temporarily fragment existing tricolored blackbird habitat: grading, filling, contouring, and other initial ground-disturbing operations could temporarily reduce the extent and functions supported by the affected habitat.

Effects associated with construction include noise, dust, and visual disturbance caused by grading, filling, contouring, and other ground-disturbing operations outside the project footprint but within 1,300 feet of it. Construction and subsequent maintenance-related noise and visual disturbances could mask calls, disrupt foraging and nesting behaviors, and reduce the functions of suitable nesting habitat for these species. The use of mechanical equipment during Covered Activities could cause the accidental release of petroleum or other contaminants that could affect tricolored blackbirds in the surrounding habitat. The inadvertent discharge of sediment or excessive dust adjacent to tricolored blackbird habitat could also affect the species.

Indirect effects are expected to result from increased vehicular traffic associated with the development of new roadways, causing mortalities; runoff from developed areas that could degrade habitat; habitat fragmentation as a result of urban and rural development and the construction of new roads and other infrastructure; introduction, establishment, and spread of invasive plant and animal species; and increased predation rates, particularly on eggs and young, from domestic pets and invasive wildlife species.

With implementation of the Plan there will be protection and management of 906 acres and restoration of 196 acres of tricolored blackbird nesting habitats, resulting in the permanent protection of 26% of modeled nesting habitat in Plan Area A (EIS/EIR Appendix H, Table H-5). There will also be protection and management of up to 27,308 acres and restoration of 4,000 acres of modeled tricolored blackbird foraging habitats, 30% of the modeled foraging habitat in Plan Area A. The avoidance/minimization, protection, restoration, and management of tricolored blackbird habitat within the Plan Area would be supported by the relevant Landscape-, Community-, and Species-specific Goals, Objectives, Conservation Measures, and Conditions on Covered Activities from the Plan summarized on EIS/EIR page 4.3-95, as well as the species-level monitoring actions described in Section 7.5.4 of the Plan.

CDFW finds that the natural community restoration and protection commitments together with the implementation of relevant Conservation Measures (Plan Section 5.3) and Conditions on Covered Activities (Plan Section 6.3) in the Plan Area will minimize and mitigate the impacts to tricolored blackbird to below a level of significance. In fact, as mentioned in the findings below related to the NCCPA, implementation of the aforementioned actions provides for the conservation of tricolored blackbird.

### **Giant Garter Snake**

Giant garter snakes use suitable wetland habitat and canals in the drainage network associated with agricultural fields in the Central Valley (U.S. Fish and Wildlife Service 1999). Although giant garter snake has been recorded frequently to the west in neighboring Sutter and Sacramento counties, there are no records of the species' occurrence in western Placer County. However, the far western portion of the Plan Area adjacent to Sutter and Sacramento Counties is within the American Basin Recovery Unit identified in the Recovery Plan for Giant Garter Snake (U.S. Fish and Wildlife Service 2017) and is within 1.5 miles of the extant population of giant garter snake located in the Natomas Basin (Plan Figure 5-3, *Potential Giant Garter Snake Dispersal Corridors*). Plan Appendix D, *Species Accounts*, provides more detail on the status and distribution of the species throughout its range and the Plan Area.

Due to the lack of extant occurrences for the species in the Plan Area, potential direct and indirect impacts associated with the Covered Activities are expected to be negligible during implementation of the Plan. Implementation of the Plan Covered Activities would result in permanent and temporary impacts on modeled aquatic and upland habitat for giant garter snake (EIS/EIR pg. 4.3-80, Impact BIO-18). Permanent impacts would result in the loss of up to 1,438 acres of aquatic habitat (7% of a total 19,511 acres of habitat in the Plan Area) and 483 acres of upland habitat (14% of a total 3,537 acres) (EIS/EIR Appendix H, Table H-2). These losses would result primarily from urban/suburban development, rural residential development, transportation projects, and infrastructure projects, primarily in the Valley portion of Plan Area A, with small losses (49 acres) in Plan Area B.

Temporary impacts of Covered Activities on giant garter snake habitat would not exceed 203 acres of aquatic habitat in the Plan Area (1% of total aquatic habitat) and 22 acres of upland habitat (1% of total upland habitat) (EIS/EIR Appendix H, Table H-2). These temporary impacts would be associated with urban/suburban development, rural residential development, transportation construction, vegetation management, infrastructure operations and maintenance, and infrastructure construction. Conservation actions through Plan implementation that could temporarily affect giant garter snake habitat include

restoration and enhancement actions such as grading and contouring to restore, create, and enhance wetlands in reserves.

Indirect effects could result from construction and maintenance of infrastructure associated with urban and rural development and from changes in hydrology caused by land conversion. Additionally, in-stream activities such as installation and maintenance of utility lines, road improvements, drainage facility improvements, and flood control projects may indirectly affect giant garter snake. Restoration, enhancement, and management actions could result in inadvertent mortality; result in the release of contaminants (e.g., fuels, lubricants) into habitat, potentially affecting survival; and cause erosion that could affect habitat.

With implementation of the Plan there will be protection of 2,000 acres of rice lands and additional protection and restoration of aquatic and wetland natural communities, with a commitment to protect 2,702 acres and restore 529 acres of suitable aquatic habitat and to protect 1,763 acres and restore 449 acres of suitable upland habitat for giant garter snake (EIS/EIR Appendix H, Table H-5). In addition, the protection, restoration, and management of suitable habitat for giant garter snake would be supported by the relevant Objectives, Conservation Measures, and Conditions from the Plan summarized on EIS/EIR page 4.3-81, as well as the species-level monitoring actions described in Section 7.5.5 of the Plan.

CDFW finds that the natural community restoration and protection commitments together with the implementation of relevant Conservation Measures (Plan Section 5.3) and Conditions on Covered Activities (Plan Section 6.3) in the Plan Area will minimize and mitigate the impacts to giant garter snake to below a level of significance. In fact, as mentioned in the findings below related to the NCCPA, implementation of the aforementioned actions provides for the conservation of giant garter snake.

### **Western Pond Turtle**

The CNDDDB lists four occurrences of western pond turtle in the Plan Area (CDFW 2020). Western pond turtle is believed to have once been abundant in Western Placer County when it supported extensive wetlands (Hayes et al. 1999), but conversion of former wetlands to agricultural lands has likely resulted in local declines of these populations (Jennings and Hayes 1994). Western pond turtles use aquatic habitats, including wetlands, stock ponds, lacustrine, riverine, riparian, and canals, for cover, foraging, and other functions. Western pond turtle also uses adjacent upland habitats for nesting, dispersal, and aestivation. Based on the species presence elsewhere and historical habitat, suitable upland and aquatic habitat is modeled throughout the Plan Area, in both the Valley and Foothills (Plan Table 3-9). Plan Appendix D, *Species Accounts*, provides more detail on the status and distribution of the species throughout its range and the Plan Area.

Covered Activities would result in permanent and temporary impacts on modeled aquatic and upland habitat for western pond turtle (EIS/EIR pg. 4.3-83, Impact BIO-19). Permanent impacts would result in the loss of 750 acres of aquatic habitat (7% of a total 10,244 acres of aquatic habitat) and up to 1,407 acres of upland habitat for western pond turtle (10% of a total 14,263 acres of upland habitat) in the Plan Area (EIS/EIR Appendix H, Table H-2; Plan Table 4-11). These impacts would result primarily from urban/suburban development, rural residential development, transportation projects, and

infrastructure projects, primarily in the Valley and Foothill portions of Plan Area A; small losses (20 acres) would occur in Plan Area B.

Temporary impacts of Covered Activities on western pond turtle would not exceed 250 acres of aquatic habitat (2% of total aquatic habitat) and 40 acres of upland habitat (less than 1% of total upland habitat) in the Plan Area (EIS/EIR Appendix H, Table H-2; Plan Table 4-12). These temporary impacts would be associated with urban/suburban development, rural residential development, transportation construction, fuels management, vegetation management, infrastructure operations and maintenance, and infrastructure construction. Conservation actions through Plan implementation that could temporarily affect western pond turtle include grading and contouring to restore, create, and enhance wetlands in reserves.

Indirect effects are expected to result from increased vehicular traffic and the development of new roadways, causing mortalities; in-stream activities and runoff from developed areas that could degrade aquatic habitat; habitat fragmentation as a result of urban and rural development and the construction of new roads and other infrastructure; introduction, establishment, and spread of invasive plant and animal species; and increased predation rates, particularly on eggs and young, by domestic pets and invasive wildlife species. Moreover, restoration, enhancement, and management actions could result in inadvertent mortality; result in the release of contaminants (e.g., fuels, lubricants) into habitat, potentially affecting survival; and cause erosion that could affect habitat.

With implementation of the Plan, there will be protection of 2,800 acres and restoration of 1,850 acres of suitable aquatic habitat for western pond turtle and the protection of 3,859 acres and restoration of 1,930 acres of suitable upland habitat (EIS/EIR Appendix H, Table H-5). In addition, the protection, restoration, and management of suitable habitat for western pond turtle would be supported by the relevant Objectives, Conservation Measures, and Conditions on Covered Activities from the Plan summarized on EIS/EIR page 4.3-84, as well as the species-level monitoring actions described in Section 7.5.6 of the Plan.

CDFW finds that the natural community restoration and protection commitments together with the implementation of relevant Conservation Measures (Plan Section 5.3) and Conditions on Covered Activities (Plan Section 6.3) in the Plan Area will minimize and mitigate the impacts to western pond turtle to below a level of significance. In fact, as mentioned in the findings below related to the NCCPA, implementation of the aforementioned actions provides for the conservation of western pond turtle.

### **Foothill Yellow-legged Frog**

Although modeled foothill yellow-legged frog is widely scattered in suitable riverine and riparian habitat throughout the foothills of Placer County, the CNDDDB lists no occurrences of this species in the Plan Area (CDFW 2020). The nearest record is slightly more than 3 miles from the eastern border of the Plan Area. In the Plan Area, modeled habitat for foothill yellow-legged frog is defined by riverine land-cover and associated riparian vegetation above 500 feet in elevation. Appendix D, *Species Accounts*, of the Plan provides more detail on the status and distribution of yellow-legged frog in Placer County as well as the species habitat model assumptions/rationale.

Due to the lack of extant occurrences for the species in the Plan Area, potential direct and indirect impacts associated with the Covered Activities are expected to be negligible during implementation of the Plan. Implementation of Covered Activities would result in permanent and temporary impacts on modeled foothill yellow-legged frog habitat in the Plan Area (EIS/EIR pg. 4.3-74, Impact BIO-16; Table H-2). Permanent impacts would result in the loss of up to 155 acres of foothill yellow-legged frog modeled habitat (8% of a total 1,837 acres of suitable habitat) in the Foothill portion of the Plan Area (i.e., streams above 500 feet. In terms of stream miles, Covered Activities will directly affect up to 3 stream miles of foothill yellow-legged frog modeled habitat (1% of the total 290 stream miles in the Plan Area) (Plan Section 4.7.7).

Additionally, Covered Activities would temporarily affect up to 39 acres of year-round foothill yellow-legged frog habitat in the Plan Area (2% of a total 1,837 acres) (EIS/EIR Table H-2). These impacts would result primarily from urban/suburban development, rural residential development, transportation projects, and infrastructure projects. Other Covered Activities that could affect habitat are in-stream activities, including but not limited to: fire fuels management, flood control and stormwater management projects, fish passage projects, and bank stabilization activities. Moreover, implementation of Plan restoration, enhancement, and management actions could result in inadvertent mortality; result in the release of contaminants (e.g., fuels, lubricants) into habitat, potentially affecting survival; and cause erosion that could affect habitat.

Short-term construction-related effects on foothill yellow-legged frog include the generation of dust, which has the potential to interfere with the oxygen diffusion process and can transport toxic compounds that may affect frogs. Runoff from urban development and other Covered Activities could degrade the aquatic habitats that support this species. Additional indirect effects are expected to result from in-stream activities that could degrade aquatic habitat; habitat fragmentation as a result of urban and rural development and the construction of new roads and other infrastructure; and the introduction, establishment, and spread of invasive plants and predators (e.g., domestic pets, raccoons, coyotes, skunks, bullfrogs) that thrive in human-dominated environments.

With implementation of the Plan, there will be protection of 83 acres of riparian habitat and restoration of 83 acres of riparian habitat along six stream miles of modeled foothill yellow-legged frog habitat in the Plan Area (EIS/EIR Appendix H, Table H-5). In addition, the protection, restoration, and management of suitable habitat for foothill yellow-legged frog would be supported by the relevant Objectives, Conservation Measures, and Conditions on Covered Activities from the Plan summarized on EIS/EIR page 4.3-75, as well as the species-level monitoring actions described in Section 7.5.7 of the Plan.

CDFW finds that the natural community restoration and protection commitments together with the implementation of relevant Conservation Measures (Plan Section 5.3) and Conditions on Covered Activities (Plan Section 6.3) in the Plan Area will minimize and mitigate the impacts to foothill yellow-legged frog to below a level of significance. In fact, as mentioned in the findings below related to the NCCPA, implementation of the aforementioned actions provides for the conservation of foothill yellow-legged frog.

### **California Red-legged Frog**

The CNDDDB lists three extant occurrences of California red-legged frog in one population in the Plan Area, near the town site of Michigan Bluff near Foresthill (CDFW 2020). All these occurrences are limited to a conservation bank site (Big Gun Conservation Bank) that is being managed for California red-legged frog (Plan Area B5). There are no known occurrences in Plan Areas A, B1, B2, B3, or B4. Within the Plan Area, modeled breeding habitat for California red-legged frog is defined by the following land-cover types: lacustrine (excluding the largest reservoirs such as Camp Far West, Folsom), fresh emergent wetlands, seasonal wetlands, riverine, valley foothill riparian, stock ponds, urban riparian, and urban wetland at elevations above 200 feet. Modeled upland habitat is defined as all oak woodland land-cover types, annual grassland, and pasture within 100 feet of modeled breeding habitat; or all oak woodland, annual grassland, pasture, valley foothill riparian, all agricultural land-cover types, urban riparian, urban wetland, and landscape and golf course ponds beyond 100 feet but within one mile of modeled breeding habitat. Appendix D, *Species Accounts*, of the Plan provides more detail on the status and distribution of California red-legged frog in Placer County as well as the species habitat model assumptions/rationale.

Implementation of the Covered Activities would result in permanent and temporary impacts on modeled habitat (see Plan Appendix D, *Species Accounts* for model assumptions/rationale). Permanent impacts would result in the loss of up to 672 acres of suitable aquatic breeding and foraging habitat (8% of a total 8,532 acres of aquatic habitat) and up to 8,551 acres of suitable upland movement and refugia habitat (11% of 75,306 acres of modeled upland habitat) in the Foothill portion of Plan Area A (EIS/EIR pg. 4.3-72, Impact BIO-15; Table H-2). These impacts would result primarily from urban/suburban development, rural residential development, transportation projects, and infrastructure projects. Moreover, restoration, enhancement, and management actions associated with the Plan could result in inadvertent mortality; result in the release of contaminants (e.g., fuels, lubricants) into habitat, potentially affecting survival; and cause erosion that could affect habitat.

Covered Activities would also temporarily affect up to 168 acres of suitable aquatic habitat and 214 acres of suitable upland habitat in the Foothill portion of Plan Area A (EIS/EIR Table H-2). These temporary impacts would be associated with urban/suburban development, rural residential development, transportation construction, fuels management, vegetation management, infrastructure operations and maintenance, infrastructure construction, and conservation activities. Conservation actions that could temporarily affect California red-legged frog include grading and contouring to restore, create, and enhance wetlands and riparian habitat in reserves.

Short-term construction-related effects on California red-legged frog if individuals were to become established in portions of Plan Areas A, B1, B2, B3, or B4 include the generation of dust, which has the potential to interfere with the oxygen diffusion process and can transport toxic compounds that may affect frogs. Runoff from urban development and other Covered Activities could degrade the aquatic habitats that support this species. Additional indirect effects are expected to result from instream activities that could degrade aquatic habitat; habitat fragmentation as a result of urban and rural development and the construction of new roads and other infrastructure; and the introduction, establishment, and spread of invasive plants and predators (e.g., domestic pets, raccoons, coyotes, skunks, bullfrogs) that thrive in human-dominated environments. Because California red-legged frogs are not currently known to occur in Plan Areas A, B1, B2, B3, or B4, indirect effects on the species are expected to be negligible, if any.

With implementation of the Plan, there will be protection of 1,168 acres and restoration of 1,241 acres of modeled aquatic habitat and the protection of 12,484 acres and restoration of 160 acres of modeled upland habitat (EIS/EIR Appendix H, Table H-5). The Plan would also protect 88.6 stream miles in the Reserve System, providing suitable habitat and facilitating dispersal for California red-legged frogs. Protection of at least 2 acres of occupied California red-legged frog habitat in Plan Area B5 by Year 2, and an additional 2 acres by Year 5 of Plan implementation will achieve CM1 CRLF-1 (Section 5.3.1.6.8). The protection, restoration, and management of suitable habitat for California red-legged frog would be supported by the relevant Objectives, Conservation Measures, and Conditions on Covered Activities from the Plan summarized on EIS/EIR page 4.3-73, as well as the species-level monitoring actions described in Section 7.5.8 of the Plan.

CDFW finds that the natural community restoration and protection commitments together with the implementation of relevant Conservation Measures (Plan Section 5.3) and Conditions on Covered Activities (Plan Section 6.3) in the Plan Area will minimize and mitigate the impacts to California red-legged frog to below a level of significance. In fact, as mentioned in the findings below related to the NCCPA, implementation of the aforementioned actions provides for the conservation of California red-legged frog.

### **Salmonids**

Central Valley fall-/late fall-run Chinook salmon and Central Valley steelhead (hereafter Chinook salmon and steelhead) use riverine and riparian habitat for spawning, rearing, and migration. These streams are referred to here as salmonid streams. As presented in Appendix D, *Species Accounts*, the main salmonid streams in the Plan Area are the Bear River below Camp Far West, Raccoon Creek, Doty Ravine, Auburn Ravine, and Dry Creek and its tributaries, Secret Ravine, Miners Ravine, Linda Creek, Antelope Creek, and Cirby Creek.

Covered Activities would result in permanent and temporary direct effects on Central Valley steelhead and Chinook salmon habitat (EIS/EIR pg. 4.3-62, Impact BIO-11). Permanent direct effects on riparian woodland/riverine habitat would total 490 acres: 480 acres in Plan Area A and 10 acres in Plan Area B (9% of total 5,519 acres of riverine/riparian habitat in the Plan Area) (EIS/EIR Appendix H, Table H-1). In terms of instream permanent direct effects resulting from Covered Activities, 1.02 miles of spawning/rearing habitat and 0.22 miles of migration/rearing habitat will be permanently impacted by Covered Activities (Appendix H Table H-3). Implementation of the Covered Activities would result in temporary direct effects on 165 acres: 145 acres in Plan Area A (3% of this community in Plan Area A) and 20 acres in Plan Area B (EIS/EIR Appendix H, Table H-1).

These direct impacts would result from road crossings (i.e., bridge work and culverts); water supply, flood control, and stormwater management activities; and activities of individual landowners, typically in rural residential settings. In addition, riparian/riverine protection, conservation, and enhancement activities associated with Plan implementation could affect Central Valley steelhead and Chinook salmon habitat, such as floodplain restoration/reconnection projects in the Dry Creek, Auburn Ravine, and Raccoon Creek watersheds; bridge and culvert improvement projects; channel improvements to natural channels; fish passage enhancements including removal of fish barriers, low-flow crossings, and development of fish screens; and placement of spawning gravels.

These activities could cause a permanent change in substrate composition and channel morphology in aquatic habitat; create a permanent loss of shallow-water habitat, riparian vegetation, and instream woody material; and change instream flows if water is diverted from streams and if woody material, including beaver dams, is removed from creeks that could benefit habitat for fish. Implementation of the Plan Covered Activities could also have direct effects on fish during construction; heavy equipment use in the active channel and impact pile driving could kill or injure fish. Finally, these activities could result in localized alterations in channel form and patterns of erosion and sedimentation that over time could alter aquatic habitat structure and function from existing conditions.

Temporary indirect effects on salmonid streams are expected to result from road crossings, water supply projects, flood control projects, and instream restoration activities. Impact mechanisms associated with these activities include accidental introduction of contaminants and sediment into flowing water and noise at individual project construction sites. Removing or altering existing riparian habitat for habitat improvement activities under the Plan could temporarily affect water temperature and habitat complexity. Recurring maintenance activities within and outside the Plan Area, such as transportation facility maintenance, flood control and stormwater facility maintenance, and vegetation management, may have temporary direct effects on Chinook salmon and steelhead through the release of sediment and contaminants and the removal of in-channel woody material.

Permanent indirect effects resulting from transportation projects and urban and rural residential development include noise, visual disturbance, and ground vibrations that could cause Chinook salmon and steelhead to avoid suitable aquatic habitat. Vehicles on bridges can increase noise levels and the release of petroleum-based chemicals into waterways, in turn causing decreased spawning, migratory, and rearing success. An increase in the input of contaminants (e.g., petroleum-based chemicals, pesticides, heavy metals) to waterways could result from residential development, the presence of new impervious surfaces associated with residential development, transportation projects, and other facilities if runoff enters waterways. Contaminants can adversely affect fish directly through exposure or indirectly through adverse effects on food organisms (e.g., macroinvertebrates), including the bioaccumulation of toxic compounds in these organisms.

Implementation of conservation measures addressing riverine and riparian communities and covered salmonids would have a beneficial permanent direct effect on steelhead and Chinook salmon. Aquatic habitat improvement activities include floodplain restoration/reconnection projects in the Dry Creek, Auburn Ravine, and Raccoon Creek watersheds; bridge and culvert improvement projects; channel improvements to natural channels; fish passage enhancements including removal of fish barriers and low-flow crossings, and development of fish screens; and placement of spawning gravels (see Plan Section 5.3.2.3.3, *Riverine/Riparian Complex Natural Communities*). These activities would benefit steelhead and Chinook salmon spawning, migratory, and rearing habitat, contributing to higher survival of these covered species in the Plan Area.

Designated critical habitat for Central Valley steelhead is present in the Plan Area. Critical habitat for steelhead occurs in Raccoon Creek, Doty Creek, Auburn Ravine, Secret Ravine, Miner's Ravine, and Dry Creek. Approximately 1.24 miles (1.3% of total designated critical habitat in the Plan Area) could be permanently affected by bridge construction, flood control and stormwater management activities, natural resource protection activities, and the conservation strategy. The conservation strategy and the

conditions listed below are expected to have a beneficial effect on critical habitat for Central Valley steelhead.

Essential fish habitat (EFH) for Chinook salmon also occurs in the Plan Area. Construction and operation of the activities listed above and the conservation strategy (restoration, enhancement, and management actions) would result in minor permanent effects on EFH. The conservation activities and Conditions discussed below will increase EFH value for Pacific salmonids and have a beneficial impact on EFH.

As summarized in Plan Table 5-8, implementation of the Plan will result in the protection of 88.6 stream miles in the Reserve System, including 25 stream miles of salmonid spawning habitat and 10 miles of salmonid migration habitat, primarily on stream reaches along Raccoon Creek, Doty Ravine (a major tributary of Raccoon Creek), and Auburn Ravine, consistent with the Central Valley Chinook and Steelhead Recovery Plan (National Marine Fisheries Service 2014). In addition, 558 acres of riparian habitat along salmonid spawning stream reaches and 342 acres of riparian habitat along salmonid migration reaches—primarily along Raccoon Creek, Doty Ravine, and Auburn Ravine—would also be protected (EIS/EIS Appendix H, Table H-4). To protect and improve water quality and watershed integrity in the Raccoon Creek watershed, 12,490 acres of oak woodland and grassland would be protected in the Foothills portion of the Plan Area, and 9,869 acres in the Raccoon Creek watershed.

The avoidance/minimization, protection, restoration, and management of steelhead and Chinook salmon within the Plan Area would be supported by the relevant Landscape-, Community-, and Species-specific Goals, Objectives, Conservation Measures, and Conditions on Covered Activities from the Plan summarized on EIS/EIR page 4.3-63 and 4.3-64, as well as the species-level monitoring actions described in Section 7.5.9 of the Plan.

CDFW finds that implementation of the Plan natural community restoration and protection commitments described above, together with the implementation of the Conservation Measures (Plan Section 5.3) and Conditions on Covered Activities (Plan Section 6.3) in the Plan Area will minimize and mitigate the impacts to Central Valley steelhead and Chinook salmon to below a level of significance. In fact, as mentioned in the findings below related to the NCCPA, implementation of the aforementioned actions provides for the conservation of Central Valley steelhead and Chinook salmon.

### **Valley Elderberry Longhorn Beetle**

The CNDDDB lists 15 occurrences of valley elderberry longhorn beetle in the Plan Area (CDFW 2020). Within the Plan, modeled habitat for valley elderberry longhorn beetle is defined as valley oak woodland and riparian woodland below 650 feet elevation. Appendix D, *Species Accounts*, of the Plan provides more detail on the status and distribution of the species throughout its range.

The Plan model for valley elderberry longhorn beetle habitat includes valley oak woodland and riverine/riparian up to 650 feet in elevation. The species is also known to occur in urban riparian areas and has been found along urban streams in areas of Roseville, Rocklin, and Sacramento (California Department of Fish and Wildlife 2017b). The species habitat model used in the EIS/EIR was modified to include urban riparian throughout the Plan Area. The changes in the species habitat model used by the

EIS/EIR team resulted in an additional 104 acres of modeled habitat within urban riparian habitat (6,471 acres total). The species model modification is summarized in EIS/EIR Table 3.3-6.

Implementation of the Plan Covered Activities would result in permanent and temporary impacts on valley elderberry longhorn beetle habitat (EIS/EIR pg. 4.3-67, Impact BIO-13) (EIS/EIR Appendix H, Table H-2). Permanent impacts would result in the loss of up to 476 acres of modeled habitat (7% of 6,471 acres of habitat in Plan Area A), primarily from urban/suburban development, rural residential development, transportation projects, and infrastructure projects. These losses would almost entirely occur within Plan Area A, with small losses (10 acres) in Plan Area B.

Temporary impacts of Covered Activities on valley elderberry longhorn beetle habitat would not exceed 18 acres (<1%) of habitat in the Plan Area (EIS/EIR Appendix H, Table H-2). These temporary impacts would be associated with urban/suburban development, rural residential development, transportation construction, fuels management, vegetation management, infrastructure operations and maintenance, and infrastructure construction. Restoration and enhancement under Plan implementation that could temporarily affect valley elderberry longhorn beetle habitat include grading and contouring to restore, create, and enhance wetlands in reserves.

Indirect effects on valley elderberry longhorn beetle habitat include accumulation of dust on shrubs resulting from up-wind disturbances, flood control practices that could fragment habitat used by valley elderberry longhorn beetle, increased risk of wildfire, and the spread of invasive plants and animals that could affect the species.

With implementation of the Plan, there will be protection and management of 2,313 acres and restoration of 1,553 acres of modeled valley elderberry longhorn beetle habitat (EIS/EIR Appendix H, Table H-5). In addition, the protection, restoration, and management of valley elderberry longhorn beetle habitat within the Plan Area would be supported by the relevant Landscape-, Community-, and Species-specific Objectives, Conservation Measures, and Conditions on Covered Activities from the Plan summarized on EIS/EIR page 4.3-68, as well as the species-level monitoring actions described in Section 7.5.10 of the Plan.

CDFW finds that the natural community restoration and protection commitments together with the implementation of relevant Conservation Measures (Plan Section 5.3) and Conditions on Covered Activities (Plan Section 6.3) in the Plan Area will minimize and mitigate the impacts to valley elderberry longhorn beetle to below a level of significance. In fact, as mentioned in the findings below related to the NCCPA, implementation of the aforementioned actions provides for the conservation of valley elderberry longhorn beetle.

### **Vernal Pool Branchiopods**

The CNDDB lists one occurrence of Conservancy fairy shrimp, 63 occurrences of vernal pool fairy shrimp, and three occurrences of vernal pool tadpole shrimp in the Plan Area (CDFW 2020). Appendix D, Species Accounts, of the Plan provides more detail on the status and distribution of the species throughout their range and the Plan Area.

Implementation of the Plan Covered Activities would result in permanent and temporary impacts on occupied and suitable vernal pool complex and constituent habitats for vernal pool branchiopods (EIS/EIR pg. 4.3-69, Impact BIO-14). Permanent impacts would result in the loss of up to 580 acres of delineated constituent habitats within 12,550 acres of vernal pool complex community (26% and 28% of these habitats in the Plan Area, respectively) (EIS/EIR Appendix H, Table H-2; Plan Table 4-11). These impacts would result primarily from urban/suburban development, rural residential development, transportation projects, and infrastructure projects. These losses would be primarily in the Valley portion of Plan Area A, with small losses occurring in Plan Area B (15 acres).

Temporary impacts of Covered Activities on vernal pool branchiopod habitat would not exceed 25 acres of vernal pool-type wetlands (1% of this habitat type in the Plan Area) and 455 acres of vernal pool complex (1% of this habitat type in the Plan Area) (EIS/EIR Appendix H, Table H-2; Plan Table 4-12). These temporary impacts would be associated with urban/suburban development, rural residential development, transportation construction, fuels management, vegetation management, infrastructure operations and maintenance, infrastructure construction, and conservation activities. Conservation actions through Plan implementation that could temporarily affect vernal pool complex include restoration and enhancement actions such as grading and contouring to restore, create, and enhance vernal pool-type wetlands in reserves.

Indirect impacts on vernal pool complex could result from Covered Activities in the Plan Area, such as grading, trenching, changes to hydrology, and changes to topography. Indirect effects on vernal pools are generally considered to occur when ground-disturbing activities take place within 250 feet of a vernal pool—more specifically, when it can be demonstrated that the hydrology supporting a pool has been altered. Indirect effects on vernal pool complexes were estimated in the Plan at 1,979 acres (see Plan Tables 4-4A through 4-4D). These indirect effects could adversely affect the functions and services of vernal pool-type wetlands and supporting uplands in vernal pool complexes. These effects could result from construction and maintenance of infrastructure associated with urban and rural development, installation and maintenance of utility lines, road improvements, drainage facility improvements, and flood control projects.

Because the known occurrence of Conservancy fairy shrimp is in an established protected area, it would not be subject to direct take by Covered Activities. Without being able to model habitat, the usual methodology for estimating effect does not apply to Conservancy fairy shrimp. Given the limited distribution and known present location, there would be no take of Conservancy fairy shrimp. It is possible, however, that Conservancy fairy shrimp may be discovered in other locations, including in areas potentially subject to effects from Covered Activities. The Plan addresses this possibility by applying conditions requiring species-specific surveys and population protections in Plan Section 6.3.5.14, Species Condition 9, Conservancy Fairy Shrimp, and by establishing a specific conservation objective in Chapter 5, Conservation Strategy, Objective VPB-2.1, Protect Conservancy Fairy Shrimp Occurrences, which states, “Protect two previously unknown (at the time of Plan development) and unprotected Conservancy fairy shrimp occurrences for the first occurrence taken, prior to such take. Protect three additional occurrences for each additional occurrence taken, prior to such take.” Achieving the proportional conservation required in Objective VPB-2.1 will limit and offset potential take of Conservancy fairy shrimp.

With Implementation of the Plan, there will be protection and management of 17,000 acres (including 790 acres delineated constituent habitats) and restoration of 3,000 acres (including 900 acres delineated constituent habitats) of the vernal pool complex community in the RAA (EIS/EIR Appendix H, Table H-5). In addition, the protection, restoration, and management of vernal pool complex for the covered vernal pool branchiopods would be supported by the relevant Objectives, Conservation Measures, and Conditions on Covered Activities from the Plan summarized on EIS/EIR page 4.3-70, as well as the species-level monitoring actions described in Section 7.5.11 of the Plan.

The Plan will provide for vernal pool fairy shrimp and vernal pool tadpole shrimp recovery in the Plan Area. The Plan includes all the six elements listed in the Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon (USFWS 2005) for an HCP to be deemed equivalent to implementation of the recovery plan for the covered area. The Plan's conservation strategy will mitigate to a less than significant level the loss of 12,500 acres of habitat within the PFG as well as the roughly 1,979 acres of vernal pool complex lands that may occur within the indirect effect radius of new urban development by the end of the proposed 50-year permit term, and providing for the conservation of vernal pool fairy shrimp and vernal pool tadpole shrimp. There are no recovery goals for Conservancy fairy shrimp in Placer County (USFWS 2005). The protection of two occurrences for the first occurrence lost, and three occurrences for each additional occurrence lost, will ensure that any metapopulation of Conservancy fairy shrimp in the Plan Area will be sustained (Plan Section 5.3.1.6.10, CM1 VPC-2).

CDFW finds that the natural community restoration and protection commitments together with the implementation of relevant Conservation Measures (Plan Section 5.3) and Conditions on Covered Activities (Plan Section 6.3) in the Plan Area will minimize and mitigate the impacts to vernal pool branchiopods to below a level of significance. In fact, as mentioned in the findings below related to the NCCPA, implementation of the aforementioned actions provides for the conservation of vernal pool branchiopods.

### **Summary of CEQA Findings for Covered Species**

CDFW finds that implementation of the Covered Activities contemplated in the Plan could result in significant impacts on the Covered Species. CDFW also finds that all impacts on these species and their habitats that could result from implementation of the Covered Activities will be avoided, minimized, and/or mitigated to below a level of significance under CEQA through adherence to, and implementation of, the Plan, and compliance with the IA and the NCCP Permit. In fact, as mentioned in the findings below related to the NCCPA, implementation of the Plan and compliance with the IA and NCCP permit will result in the conservation of the Covered Species. CDFW's findings under CEQA with respect to these species are consistent with the findings of the lead agency on the same subject. CDFW's findings for Covered Species are based on the overall conservation strategy, species-specific biological objectives, conservation measures, conditions on Covered Activities, and the adaptive management and monitoring program (Plan Chapters 5, 6, and 7).

### **3.6 Mitigation, Monitoring, and Reporting Program**

Every agency that makes CEQA findings must adopt a Mitigation, Monitoring, and Reporting Program (MMRP) to ensure that the mitigation measures required as conditions of approval are carried out (CEQA Guidelines, Section 15097(d)). The MMRP document serves the needs of CDFW to ensure that

the Plan, especially the components designed to avoid, minimize, and mitigate potentially significant impacts, are properly implemented in compliance with the conditions of approval.

CDFW has considered the requirements of the Plan, including the community protection and restoration commitments, biological goals and objectives, conservation measures, conditions on Covered Activities, and monitoring and adaptive management program, and hereby adopts those requirements as the MMRP. After reviewing the MMRP prepared by Placer County as part of the Plan, and determining that this document meets CDFW's needs with respect to implementation of the Plan and potentially significant impacts to species not covered by the Plan, CDFW is adopting Mitigation Measures BIO-1 through BIO-4 from the MMRP prepared by Placer County as part of its 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 lead 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).

CDFW faces a similar obligation as a responsible agency under CEQA (CEQA Guidelines, Section 15096, subd. (g)). As noted above, however, when considering alternatives and mitigation measures, CDFW "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" (*Id.*, subd. (g)(1)). Those effects in the present case are limited to the environmental effects authorized by CDFW under NCCPA for the Plan. In that regard, and consistent with CEQA Guidelines, issuance of the NCCP Permit is prohibited if there are "any feasible alternative or feasible mitigation measures within CDFW's powers that would substantially lessen or avoid any *significant* effect" associated with that decision (*Id.*, subd., (g)(2) (emphasis added)).

As demonstrated above in Section 3.5, no significant environmental effects that fall within the responsibility and jurisdiction of CDFW remain unmitigated. That is to say, all potentially significant impacts associated with CDFW's authorization of the Plan are mitigated to below a level of significance under CEQA, so no project alternatives are analyzed by CDFW (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; an EIR must contain meaningful discussion of both project alternatives and mitigation measures).

### **3.8 Statement of Overriding Considerations**

CDFW's approval of the Plan will not result in any adverse environmental impacts that remain significant and unavoidable (see discussion in part 3.7 above related to the role of a CEQA responsible agency). CDFW is not adopting a Statement of Overriding Considerations under CEQA.

## FINDINGS UNDER THE NCCPA

### 4.0 FINDINGS UNDER THE NCCPA

Section 2830(e) of the Fish and Game Code states, “[n]othing in this chapter prohibits the taking or the incidental take of any identified species if the taking is authorized by the department pursuant to . . . Any natural community conservation plan developed pursuant to a planning agreement executed on or before January 1, 2002, and which the department finds is in substantial compliance with Section 2820.” The Planning Agreement was fully executed in 2001. Also, as detailed in this section 4.0, CDFW finds that the Plan is in substantial compliance with Section 2820 of the Fish and Game Code.

### 4.1 Findings Regarding the Planning Agreement and Plan

The Plan must be completed, approved, and implemented pursuant to the NCCPA and CDFW must evaluate the adequacy of the NCCP by reference to the statute. The following sections describe how the Plan was developed consistent with the Planning Agreement requirements as specified in Section 2810. The following sections also detail CDFW’s findings regarding the Plan.

**Finding 4.1.1**                    **CDFW finds that the Plan has been developed consistent with the process identified in the Planning Agreement as per Section 2820(a)(1).**

Section 2820(a)(1) requires that the Plan be developed consistent with the Planning Agreement entered into pursuant to Section 2810. The Planning Agreement for the Plan was signed by Placer County on October 11, 2001; CDFW on October 16, 2001; NMFS on December 7, 2001; and USFWS on December 10, 2001. The parties entered into an amendment that extended the terms of the Planning Agreement through December 1, 2015. A second amendment to the Planning Agreement was entered into extending the duration three more years to December 1, 2018. A third amendment was agreed upon by the parties extending the terms of the Planning Agreement through December 1, 2019. A fourth Planning Agreement amendment was executed by the parties extending the terms through December 1, 2020 unless extended by amendment or terminated.

The terms of the Planning Agreement were implemented as per the roles and responsibilities assigned to the respective parties. Therefore, CDFW finds that the Plan has been developed consistent with the process identified in the Planning Agreement entered into pursuant to Section 2810 (Section 2820(a)(1)).

**The Planning Agreement shall be binding upon CDFW, other participating federal, state, and local agencies, and participating private landowners (Section 2810(b)(1)).**

Section 6 of the Planning Agreement states that “the Parties intend that this Agreement will fulfill NCCPA requirements pertaining to planning agreements and will establish a mutually agreeable process for the County’s preparation of the NCCP/HCPs that fulfills the requirement of the NCCPA and ESA”. The parties that signed the Planning Agreement were Placer County, USFWS, NMFS, and CDFW (California Department of Fish and Game at the time the Planning Agreement was developed). By signing the Planning Agreement, all signatories are bound to the terms and conditions of the Planning Agreement.

Therefore, CDFW finds that the Plan was developed consistent with the Planning Agreement such that upon signing the Planning Agreement it is binding upon CDFW, USFWS, NMFS, and Permittees.

**The Planning Agreement identifies the geographic scope (Section 2810(b)(2).) and participating parties.**

The participating parties who signed the Planning Agreement include Placer County, USFWS, NMFS, and CDFW. Section 4 and Exhibit 1 of the Planning Agreement define the rough geographic scope of the Plan Area and reflects the administrative boundary of Placer County, as well as ecological considerations. Within Placer County, the Planning Agreement identifies three phased, ecologically linked NCCP/HCPs that will span the county. This Plan is identified in Planning Agreement Section 4.1.1 as “Western Placer County - Phase 1”. The Plan has since modified the geographic scope during development based on the jurisdiction of Permittees (Participating Agencies in the Planning Agreement) that have joined the Plan, in addition to conservation measures developed in the Plan that will be carried out in adjacent Sutter County (Plan Areas B3 and B4). The other Permittees under the Plan that were not party to the Planning Agreement have agreed to participate in the development and implementation of the Plan as a Participating Agency, as provided for in Section 4.2 of the Planning Agreement.

Therefore, CDFW finds that the Plan was developed consistent with the Planning Agreement process regarding the geographic scope of the Plan and the Permittees.

**The Planning Agreement identifies a preliminary list of those natural communities and the endangered, threatened, candidate, or other species known, or reasonably expected to be found, in those communities, that are intended to be the initial focus of the Plan (Section 2810(b)(3).).**

Section 6.3.5 and Exhibit 2 of the Planning Agreement identify the endangered, threatened, proposed, candidate, and other species known or reasonably expected to be found in the natural communities covered by the Plan, and to be initially addressed by the Phase 1 HCP/NCCP (Plan). The participating partners developed the preliminary list, which included thirty-five plant and animal species and nine natural community types. All of these species were evaluated for coverage under the Plan, and based on the Covered Species selection criteria discussed in Appendix C of the Plan, *Evaluation of Species for Coverage*; this list was reviewed and refined down to the final list of fourteen species for the Plan.

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

**The Planning Agreement identifies preliminary conservation objectives for the planning area (Section 2810(b)(4).).**

The Permittees and key stakeholders, with input from the scientific community, identified the guiding principles and broad goals (Sections 1.1.2.1 through 1.1.2.6) to guide development of the PCCP conservation strategy.

The overall goals of the Plan are as follows:

- Protect and enhance ecological diversity and function in the greater portion of western Placer County, while allowing appropriate and compatible growth in accordance with applicable laws.
- Sustain all natural communities that are currently present in the western Placer County landscape.
- Partially restore or enhance certain natural communities and ecosystem processes and functions.
- Ensure population stability and sustainability of Covered Species and contribute to the species' recovery.
- Maintain connectivity between habitats across the landscape.
- Address cumulative impacts of intensive land use and urbanization in Placer County.

Therefore, CDFW finds that the Planning Agreement identifies preliminary conservation objectives for the planning area.

**The Planning Agreement establishes a process for the inclusion of independent scientific input to recommend scientifically sound strategies for species and natural communities proposed to be covered by the Plan, recommend a reserve design to address these species, recommend management principles and conservation goals used for monitoring and adaptive management of the Plan, and identify data gaps and uncertainties (Section 2810(b)(5)).**

Section 6.3.3 of the Planning Agreement discusses the role of independent scientific review and input in the development process for the Plan. During the development of the Placer Legacy Program, an independent Scientific Working Group (Planning Agreement Section 1.2.3) provided recommendations to the County that were incorporated into the Placer Legacy Program NCCP/HCP Guidelines (Section 1.2.5). Section 1.2.5.1 of the Planning Agreement states that:

*The NCCP/HCPs will be based in the best available scientific information. The NCCP/HCPs will:*

- *be based on principles of conservation biology, community ecology, landscape ecology, individual species' ecology, and other scientific knowledge and thought;*
- *be based on thorough surveys of all species of Federal, State, and local concern on lands dedicated to conservation or mitigation and other lands where covered activities will occur;*
- *be reviewed by well-qualified, independent scientists;*
- *identify and designate biologically sensitive habitat areas for preservation;*
- *determine the extent of impacts to species from incidental take caused by development and other covered activities;*
- *require monitoring of target species on developed, mitigation and other preserved lands for the duration of each NCCP/HCP; and*
- *seek to contribute to the recovery, not just the maintenance, of Covered Species.*

For the purposes of drafting the Plan, the County convened a group of Science Advisors comprised of independent scientists representing a range of disciplines including geography, conservation biology, aquatic resources, and terrestrial ecology. The Science Advisors reviewed available information on biological resources and published a report in January of 2004 (Brussard et al. 2004). The Science Advisors identified the ecosystems and associated species described in Plan Chapter 3, *Physical and*

*Biological Setting*, and made recommendations for their conservation and management. Those recommendations are included in Plan Chapter 5, *Conservation Strategy*.

Additionally, independent scientific review and input during the implementation and adaptive management phases of the Plan are critical components of Plan implementation, as further described in Plan Chapter 8, *Plan Implementation*.

Therefore, CDFW finds that the Plan has been developed consistent with the Planning Agreement process for the collection of data and independent guidance to meet scientifically sound principles for the conservation of species.

**The Planning Agreement requires coordination with federal wildlife agencies with respect to the federal Endangered Species Act (2810(b)(6)).**

Sections 5.2 and 5.5 of the Planning Agreement state that the Parties intend that the Plan will meet the requirements of Section 10 of the ESA and will result in both the USFWS and NMFS issuing incidental take permits for the Plan. Additionally, to the extent appropriate and allowed under the law, the Parties intend that the biological goals and objectives, conservation measures, and conditions on Covered Activities included in the Plan, once approved by USFWS and NMFS, will be incorporated into future Section 7 consultation between the USFWS or NMFS and applicable federal agencies regarding Covered Activities that may affect species or habitat covered by the Plan.

Therefore, CDFW finds that the Plan has been developed consistent with the Planning Agreement process requiring coordination with federal wildlife agencies with respect to the federal ESA.

**The Planning Agreement encourages concurrent planning for wetlands and waters of the United States (Section 2810(b)(7)).**

The Plan includes a program to support issuance of Section 404 permits for Covered Activities with effects on waters of the county. This program, together with the CARP, described in Section 1.3.1, *County Aquatic Resources Plan*, as well as other local programs, plans, and resource management efforts, provide a framework that will be implemented as part of the overall PCCP to comply with the CWA. This program will specify procedures and avoidance, minimization, and mitigation measures for waters of the United States, including vernal pools, that will be used by USACE to develop a permitting strategy for Covered Activities under the Plan, which may include issuance of a Section 404 Programmatic General Permit, Regional General Permit, Letter of Permission procedures, and Standard Permit procedures. USACE will rely on and tier from the EIS's alternatives analysis in reviewing subsequent permit applications for projects that fall within the Plan and the CARP's parameters. The CARP is intended to allow for a consistent review of aquatic resources and provide a streamlined process for compliance with Section 404 of the CWA for the Covered Activities.

Additionally, under CWA Section 401, applicants for a federal license or permit to conduct activities that may result in the discharge of a pollutant into waters of the United States must obtain certification from the state in which the discharge would originate. Therefore, all projects that have a federal component and may affect state water quality (including projects that require federal agency approval, such as issuance of a Section 404 permit) must also comply with CWA Section 401 and the State's Porter-

Cologne Water Quality Control Act. In California, Section 401 certifications are handled by the RWQCBs. The PCCP falls under the jurisdiction of the Central Valley RWQCB. The Central Valley RWQCB must certify that the discharges authorized under Section 404 will comply with state water quality standards and other requirements of the CWA.

Section 404 permits issued by USACE based on the wetland conservation program in the Plan must be certified under Section 401 by the Central Valley RWQCB. It is anticipated that this permit will be included as a part of the CARP process and that a programmatic approach will be implemented for Section 401 permits in conjunction with the USACE Section 404 permit.

Therefore, CDFW finds that the Plan has been developed consistent with the Planning Agreement process that encourages concurrent planning for wetlands and waters of the United States.

**The Planning Agreement establishes a process for interim project review (Section 2810(b)(8)).**

Section 7 of the Planning Agreement establishes a process to ensure that interim projects, actions, or activities approved or initiated in the Plan Area before completion of the Plan do not compromise the successful development or implementation of the Plan. The Planning Agreement identifies guidelines for interim projects pertaining to: permitting by the Wildlife Agency (Section 7.1), land use decisions within high conservation value areas (Section 7.2), discretionary approvals by the County (Section 7.3), and an informal conference process whereby the Parties agree to meet and confer at the request of any Party to discuss interim projects in accordance with Section 7.4 of the Planning Agreement.

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

**The Planning Agreement establishes a process for public participation throughout the Plan development and review pursuant to Section 2815 (Section 2810(b)(9)).**

Section 6.3.2 of the Planning Agreement states the intent of the Parties that the final Plan be informed and shaped by public input, specifically including input from residents and landowners in the Plan Area. The paths for public input into the Plan development process specifically identified in the Planning Agreement include:

- A Stakeholder Working Group including representation from environmental organizations, developers, landowners, agriculturalists, timber interests, educators, and representatives from the Scientific Advisory Group.
- Availability of public review drafts of plans, memoranda of understanding, maps, conservation guidelines, species coverage lists, and other planning documents and supporting material available for public review in a reasonable and timely manner.
- Providing a minimum of 60 days for public review and comment for the draft Plan, implementing agreements, and associated documents proposed for adoption. All such documents shall be made publicly available by the County at least 10 days prior to and public hearing dates regarding the documents.
- Holding public hearings regarding Plan development conducted to complement or integrate the requirements of CEQA, NEPA, and any other applicable State or Federal Laws.

- The County, in concert with the Stakeholder Working Group and the Sierra Business Council, providing access to information for persons interested in the Plan via a public outreach program.

Additionally, Section 6.1.2.1 of the Planning Agreement states that final Plan proposed for adoption must be made publicly available for public review and comment for a minimum of 45 days, and must be made available at least 10 working days before any public hearings regarding the document.

Pursuant to Fish and Game Code Section 2815, all draft documents and materials were made available to the public in a timely manner, meetings were held regularly, and interested organizations and individuals were engaged through public workshop events. Permittees have also provided public access to many of the documents related to the development of the Plan through the website: <http://www.placer.ca.gov/3362/Placer-County-Conservation-Program>.

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

**The Planning Agreement will be available to the public for 21 calendar days for review and comment prior to approval (Section 2810(d).)**

The Planning Agreement was approved at the October 2, 2001 Placer County Board of Supervisors meeting. Prior to that meeting date, the public hearing date was published, and the document and associated staff report were available for the public for review subject to the Brown Act. Following the Board of Supervisors approval, the document was executed by the County on October 11, 2001, CDFW on October 16, 2001, NMFS on December 7, 2001, and USFWS on December 10, 2001.

Therefore, CDFW finds that the public had 21 calendar days to review and comment on the proposed Planning Agreement prior to its execution by the Parties.

**Finding 4.1.2**

**CDFW finds that the Plan integrates adaptive management strategies that are periodically evaluated and modified based on information from the monitoring program and other sources, which will assist in the conservation of Covered Species and ecosystems within the Plan Area (Section 2820(a)(2).)**

Chapter 7, *Monitoring and Adaptive Management Program*, describes the monitoring and adaptive management framework for the Plan, including guidelines, and specific recommendations that will help the PCA develop a detailed program during the initial years of Plan implementation. The purposes of this framework and the final monitoring program are to ensure compliance with the Plan, to assess the status of Covered Species and natural communities within the Reserve System, and to evaluate the effects of management actions such that the conservation strategy described in Chapter 5, including the biological goals and objectives, is achieved. Adaptive management and monitoring are integrated processes in this Plan, and monitoring will inform and change management actions to continually improve outcomes for Covered Species and natural communities.

The Plan has been developed despite uncertainties within the Plan Area, including ecosystem processes, the distribution and abundance of Covered Species, the response of species and ecosystems to

management actions, and future changes to ecological systems (e.g., changes that may occur due to climate change) (Christensen et al. 1996; Noss et al. 1997; Atkinson et al. 2004). Because the Plan is based on the best scientific information currently available, it is expected that the Plan's conservation measures will effectively achieve the biological goals and objectives. However, there are varying degrees of uncertainty associated with the management techniques and conditions within and outside the Plan Area. In addition, the status of Covered Species and natural communities may change in unexpected ways during Plan implementation. It is possible that additional and different management measures not identified in the Plan will be identified in the future and proven to be more effective in achieving the biological goals and objectives. Results of effectiveness monitoring may also indicate that some management measures are less effective than anticipated.

To address these uncertainties, the monitoring and adaptive management program framework has been designed to track progress toward achieving the Plan's biological goals and objectives and to maximize the ability of the PCA to meet the Plan's goals and objectives in a scientifically defensible and cost-effective way (Atkinson et al. 2004). The monitoring and adaptive management program will inform reserve managers and other decision makers of the status of covered and other native species, natural communities, and essential ecological processes, such that management actions can be revised when necessary to meet the biological goals of the Plan.

Given the scope and scale of the Plan, it will take several years to design a biological monitoring and adaptive management program that is logistically feasible and scientifically sound. Chapter 7 provides a framework, guidelines, and specific recommendations that will help the PCA develop a detailed monitoring program during the first five years of Plan implementation and as individual parcels are acquired as part of the Reserve System. Because the exact location and condition of the Reserve System, as well as target areas for monitoring outside the Reserve System, are not known at this time, it is difficult or impossible to develop detailed monitoring requirements, including protocols, thresholds, triggers, and other key variables. Before each reserve unit management plan monitoring component is developed, basic monitoring will be initiated within the Reserve System. Monitoring priorities will be guided by species present or assumed to be present in the first reserves acquired under the Plan.

The PCA will monitor biological resources at the landscape, community, and species levels (see Section 7.1.4.2). In addition to these levels, the PCA will conduct three main types of monitoring: compliance monitoring, effectiveness monitoring, and targeted studies (see Section 7.2.1). Table 7-2 provides a summary of monitoring tasks throughout the Plan permit term and beyond. Detailed information of monitoring tasks by program phase is found in Section 7.2.2, *Program Phases*. The inventory phase of monitoring (Section 7.2.2.1) occurs following permit approval and continues on new parcels as they are acquired and added to the Reserve System or new conservation measures are initiated outside the Reserve System. The inventory phase has three key components: documentation of baseline conditions, initiation of management and monitoring planning and activities, and initial development of management oriented conceptual models. The long-term monitoring and adaptive management phase (Section 7.2.2.2) generally begins after the inventory phase, but need not wait until the inventory phase is fully concluded before initiation. Monitoring that does not depend on the results of targeted studies will occur as soon as the reserve unit management plans have been reviewed and approved by the Wildlife Agencies and baseline studies are complete (inventory phase) or sooner, if appropriate. Long-term monitoring will be conducted to identify and evaluate the status of landscapes, natural

communities, and Covered Species and the effectiveness of the management actions in achieving the biological goals and objectives of the Plan (Figure 7-5).

Adaptive management is a critical element of the Plan because it addresses many of the uncertainties of the Plan identified above and provides for continual adjustment and improvement toward meeting Plan goals and objectives. Key to the success of the adaptive management program is a clear and effective structure for making decisions on the basis of new data from Plan monitoring and information from other sources. The PCA will be advised by four groups that play an important role in adaptive management: Wildlife Agencies, science advisors, land managers, and the public. The roles of these entities in the Plan's monitoring and adaptive management program are described in Plan Sections 7.6.2 through 7.6.5, respectively.

The PCA will solicit input regarding adaptive management from the Wildlife Agencies, additional agencies, science advisors, and the public. In addition, the PCA may convene technical committees to seek focused advice on key adaptive management topics. The responsibility for which course of action to take in adaptive management rests with the PCA and its senior staff or senior contract biologists. However, the Wildlife Agencies will assist the PCA with the adaptive management program. Major shifts in the adaptive management program need to be reviewed and approved by the Wildlife Agencies. Major shifts include, but are not limited to, proposed actions that may be inconsistent with the Plan or detrimental to a Covered Species, introducing new and untested management techniques, discontinuing and replacing ineffective management techniques that are recommended in the conservation strategy, or applying management techniques on a much larger or smaller scale than envisioned in the Plan. Decisions made in the adaptive management program will be based primarily on which course of action is most likely to meet the conservation strategy described in Chapter 5.

Therefore, CDFW finds that the Plan integrates adaptive management strategies that are periodically evaluated and modified based on information from the monitoring program and other sources, which will assist in the conservation of Covered Species and ecosystems within the Plan Area.

**Finding 4.1.3**

**CDFW finds that the Plan provides for the protection of habitat, natural communities, and species diversity on a landscape or ecosystem level through the creation and long-term management of habitat reserves or other measures that provide equivalent conservation of covered species appropriate for land, aquatic, and marine habitats within the plan area (Section 2820(a)(3)).**

The Plan's conservation strategy (Chapter 5) will provide for the protection, management, enhancement, restoration, and creation of natural community types, particularly as habitat for Covered Species and for protection for individuals and enhancement of populations of Covered Species. This will largely be accomplished via the implementation of Conservation Measure 1, *Establish the Reserve System*; Conservation Measure 2, *Manage and Enhance the Reserve System*; and Conservation Measure 3, *Restore and Create Natural Communities and Covered Species' Habitat* to achieve the Landscape-, Community-, and Species-level Biological Goals and Objectives (see Sections 5.3.1, 5.3.2, and 5.3.3, respectively) in developing the Reserve System over the course of the Plan's 50-year permit term.

The Reserve System will be created by acquiring and managing large, interconnected blocks of land where ecological sustainability can be maintained, including hydrologic function and land-cover

diversity, while minimizing incompatibility of any continuing land use. The Reserve System will build on a large area of EXR which includes private mitigation banks, land trust holdings, and public lands, much of which was acquired by Placer County under the Placer Legacy program in anticipation of a regional conservation plan. The Reserve System will be located in the western and northern Valley and northern Foothills Plan Areas, and along the Stream System within the Reserve Acquisition Area (RAA).

Over the 50-year permit term for the Plan, the PCA will acquire and permanently protect approximately 47,300 acres for natural and semi-natural community protection and restoration irrespective of loss (Table 5-2 and Table 5-3). Within that land, the PCA will restore at least 4,405 acres of natural communities, and up to 6,220 acres of natural communities if all allowable loss proposed under the Plan occurs (Table 5-4). These protected and restored lands will augment the approximately 16,000 acres of EXR within the Plan Area. Cumulatively, 38% of the present natural and semi-natural landscape in Plan Area A (Figure 1-2) would ultimately be subject to conservation management (Table 5-2).

The Reserve System will provide a means for protecting, managing, enhancing, and restoring or creating the natural and semi-natural communities and habitats that support the Covered Species. The Reserve System will mainly be located in the western and northern Valley and in the northern Foothills, regionally separated from future urban and suburban growth. The geographic aspect of the conservation strategy is depicted on Figure 5-1.

In addition to the natural and semi-natural community protection and restoration commitments described above, the Plan's conservation strategy includes two other important elements that provide for the protection, restoration, and creation of natural communities and associated Covered Species habitats within both the Reserve System and the larger Plan Area:

1. Stream Protection, Enhancement, and Avoidance. The conservation strategy provides protection of the Stream System everywhere in Plan Area A. Conservation measures in, and avoidance of (see Section 6.3.3, *Conditions to Avoid, Minimize, and Mitigate Effects on the Stream System*), the Stream System contribute both to Covered Species' habitats and connectivity in the Reserve System. In-stream enhancement actions will occur inside and outside of the Reserve System, in Plan Area A and B (see Section 5.3.1.3.4, *Conservation in Plan Area B*). Such actions include, but are not limited to: removal and/or modification of barriers to fish passage; screening unscreened water diversions; improvement of in-channel features; and non-native animal species control (see Section 5.3.2.3.3, *Riverine/Riparian Complex Natural Communities*).
2. Wetland Conservation and No Overall Net Loss of Wetland Functions and Services. The Plan provides for protection, enhancement, restoration, and creation of wetlands through the conservation measures for the vernal pool complex, riverine/riparian complex, and aquatic/wetland complex natural communities. The conservation strategy provides for the protection of surrounding upland necessary to sustain the hydrological function of protected, restored, and created wetlands.

The Plan anticipates loss of wetlands, including vernal pool wetlands. Restoration and creation of wetlands will specifically provide in-kind compensatory habitat in the Reserve Acquisition Area (RAA) or Stream System in order to achieve conservation of the Covered Species and no overall net loss of wetland habitat through the term of the permit.

Two reserve unit management plan templates will be used for the entire Reserve System: one for the Valley and one for the Foothills. Reserve management plan templates will serve as guiding management plans for the entire Reserve System and for the development of reserve unit management plans. Reserve unit management plans will be developed for individual reserve units— multiple parcels in the same area with similar management needs—based on the appropriate template (i.e., whether the reserve unit is in the Valley or Foothills). Reserve unit management plans will be updated through the adaptive management and monitoring process. Reserve-unit management plans will tailor the appropriate management plan template to the conditions of each reserve unit (e.g., communities and Covered Species present, site-specific management needs).

Preparation of reserve unit management plans will tier off the Plan conservation strategy and reserve management plan templates. Reserve unit management plans will incorporate the Plan conservation strategy that applies to that reserve unit (e.g., a new reserve unit in the Valley with vernal pool complexes will incorporate vegetation management plans for vernal pool complexes) as reserve units are added to the Reserve System. The PCA will formally review and, where appropriate, systematically revise reserve unit management plans at least every 5 years. This review will be based on an evaluation of the success of management methods (i.e., knowledge gained through the monitoring and adaptive management program) in achieving objectives of the reserve, as well as on results of outside research.

Each reserve unit management plan will include a discussion of the management and enhancement of natural communities and Covered Species’ habitat. Enhancement measures for each reserve unit will be determined on a case-by-case basis, based on the conditions of a reserve, to promote recruitment of Covered Species by managing vegetation, controlling invasive species, and promoting hydrological and other natural processes. Management and enhancement measures will be based on existing information, including knowledge of historic management regimes and observed outcomes of ongoing management, while incorporating new information resulting from research and monitoring. Various alternative methods and techniques for enhancing natural communities and Covered Species’ habitat are described in Section 5.3.2.3, Natural Community–level Management and Enhancement, and Section 5.3.2.4, Species-level Management and Enhancement Measures. If these approaches do not provide the desired outcomes, then the PCA will utilize adaptive management to achieve the biological goals and objectives (see Chapter 7, *Monitoring and Adaptive Management Program*).

Therefore, CDFW finds that the Plan provides for the protection of habitat, natural communities, and species diversity on a landscape or ecosystem level through the creation and long-term management of habitat reserves or other measures that provide equivalent conservation of Covered Species appropriate for land and aquatic habitats within the Plan Area.

**Finding 4.1.4.A**

**CDFW finds that the development of reserve systems and conservation measures in the Plan Area provides, as needed for the conservation of species: conservation, restoration, and management of representative natural and semi-natural landscapes to maintain the ecological integrity of large habitat blocks, ecosystem function, and biological diversity (Section 2820(a)(4)(A)).**

The Plan’s conservation strategy is designed to achieve landscape-, natural community-, and species-level biological goals and objectives established for the Plan, through the implementation of the conservation measures. Goals are organized by planning level and are provided in Section 5.2.5,

*Landscape-level Biological Goals and Objectives*, Section 5.2.6, *Natural Community–level Biological Goals and Objectives*, and Section 5.2.7, *Species-level Biological Goals and Objectives*. Conservation measures (Section 5.3) will be implemented to achieve the biological goals and objectives at each planning level. The goals and objectives, and their corresponding conservation measures, are listed in Table 5-8. Each goal and objective are coded using the abbreviations listed in Table 5-1. Each objective is also titled to facilitate cross referencing with the conservation measures.

The fundamental landscape-level goal for the Plan is the creation of the Reserve System. The Reserve System will provide the means and assurances to protect, maintain, enhance, and restore the representative landscapes of the Plan Area and the diversity of communities that make up the landscapes. Importantly, the Reserve System will also provide habitat for Covered Species and the occurrences of Covered Species necessary to ensure their recovery in the Plan Area (Goals L-1 through L-3, Section 5.2.5, *Landscape-level Biological Goals and Objectives*).

Landscape-level Objective L-1.1 (Section 5.2.5) is to establish a large, interconnected Reserve System of at least 47,300 acres of natural communities, agricultural habitat, and Covered Species' habitat. All natural communities in the Plan Area will be represented within the Reserve System, primarily within the RAA, irrespective of the amount of natural communities and Covered Species lost as a result of Covered Activities, including at least 33,000 acres in the Valley and at least 14,300 in the Foothills.

Conservation Measure 1, *Establish Reserve System* (Section 5.3.1) describes how the PCA will establish the Reserve System to benefit the Covered Species, natural communities, and ecosystems of the Plan Area. Reserve System assembly is described in terms of land acquisition procedures, land acquisition methods, and land selection criteria. These components, applied at each planning level as described in Conservation Measure 1, will ensure the Reserve System meets applicable biological goals and objectives related to the acreage, configuration, and quality of lands in the Reserve System.

Reserve System design will focus on maintaining landscape-level processes, natural and seminatural communities, and habitat for Covered Species. The Reserve System will provide adequate representation of community types within the Plan Area. Priorities for acquisition into the Reserve System will emphasize the acquisition of habitat occupied by Covered Species.

Table 5-2 summarizes the Plan's goal of acquisition of 47,300 acres of natural and semi-natural lands. Of the total acreage acquired, the Plan proposes to maintain 41,080 acres (87 percent) in their original (or enhanced) condition for habitat protection; the 6,220-acre balance would be available for restoration to other communities. Restoration commitments are described in Conservation Measure 3, *Restore and Create Natural Communities and Covered Species' Habitat* (Section 5.3.3). Table 5-4 provides the acres of each natural community that will be restored and total 4,375 acres independent of effect and 1,845 acres dependent on effects from Covered Activities. Table 5-5 provides a summary overview of the protection and restoration commitments and permanent and temporary direct effects.

All restoration/creation construction independent of effect will be completed by Year 35 (i.e., for all natural communities and constituent habitats). This will allow sufficient time for monitoring and adaptive management to ensure that the relevant success criteria and occupancy standards are met. To ensure that the PCA makes steady progress toward the total restoration/creation commitment independent of effects (Table 5-4), milestones are established for natural community types and

constituent habitats in Table 5-7. Milestones are established for Years 15, 25, and 35. The interim milestones for restoration/creation independent of effect (Years 15 and 25) will be achieved when the restoration/creation activities have been completed (e.g., ground-moving activities, planting) for each acreage milestone. The PCA will monitor performance standards, report to the Wildlife Agencies, and take remedial actions in the event performance standards are not met when the interim milestones have been reached.

All restoration/creation dependent on effect will be completed by Year 40 (i.e., for all natural communities and constituent habitats). The later milestone for the completion of the restoration/creation commitments dependent on effect is to allow an additional 5 years of mitigation from projects that affect natural communities and constituent habitats to finance restoration/creation before the restoration/creation must be completed. Section 5.3.3.3.1, *Vernal Pool and Grassland Natural Communities*, describes special provisions for vernal pools restored/created after Year 35 but by Year 40.

Reserve acquisitions will be distributed across the Plan Area to link and provide spatial diversity of protected communities. The main geographical considerations are (1) division between West (Valley) and East (Foothills), (2) division between North and South, (3) location of the Stream System drawn around Plan Area watercourses, and (4) the designation of the RAA (Figure 5-1). The RAA is subdivided into five conservation zones: Valley North Conservation Zone, Valley South Conservation Zone, Valley PFG, Foothills North Conservation Zone, and Foothills PFG (community and constituent habitat acreages summarized in Table 5-3). The potential location of linkages between these conservation zones and surrounding open space/conserved lands outside of the Plan Area are illustrated on Figure 5-1. The PCA will prioritize acquisitions that contribute to protection of these linkages. Reserve lands along the axes of these linkages will provide east-west connectivity (Objective L-2.3), mainly along major watersheds, and north-south connectivity (Objective L-2.4), mainly across watersheds.

Although the focus of acquisition will be on land in the RAA, the conservation zones include the EXR because the Plan's Reserve System will be building from the EXR. The combination of the EXR and the new reserves created by the Plan will contribute to landscape, natural community, and Covered Species' goals. Four EXR have been identified as being suitable for partial inclusion into the Reserve System (see Section 5.3.1.3.5, *The Role of Existing Protected Areas in the Conservation Strategy*), Hidden Falls Regional Park, Doty Ravine Preserve, Swainson's Grassland Preserve, and the Big Hill Area. These four EXR are also identified on Figure 5-1.

The land acquisition process is described in Section 8.4, *Establishing the Reserve System*. All land acquisition will be approved by CDFW and USFWS to ensure consistency with the biological goals and objectives. All land acquisition that includes suitable habitat for covered fish will also be approved by NMFS to ensure consistency with the biological goals and objectives for covered fish.

The Reserve System will be assembled over the term of the Permit, according to the Stay-Ahead provision (see Section 8.4.3, *Stay-Ahead Provision*). Progress toward assembling the Reserve System must stay ahead of progress toward proposed total maximum take allowed under the permit. This Stay-Ahead provision applies for each community type. This ensures that reserve assembly is keeping pace with loss and that the PCA is making steady progress toward completing the Reserve System. This will be demonstrated by showing that, at any given time, the cumulative conservation expressed as a

percentage of the protection commitment is greater than the cumulative take expressed as a percentage of the maximum extent of effects as proposed in the Plan.

Conservation Measure 2, *Manage and Enhance the Reserve System* (Section 5.3.2) describes how the Plan will meet the biological objectives presented in Section 5.2.5, *Landscape-level Biological Goals and Objectives*, Section 5.2.6, *Natural Community-level Biological Goals and Objectives*, and Section 5.2.7, *Species-level Biological Goals and Objectives*, as they relate to management and enhancement of the Reserve System. The conservation measure describes: the process for development of reserve management plans and the required contents of management plans (Section 5.3.2.1); management and enhancement actions to be implemented at the landscape level, such as increasing permeability in the Reserve System (Section 5.3.2.2); management and enhancement requirements and techniques for each community (Section 5.3.2.3); and management and enhancement to meet Covered Species' needs that are not met through landscape- or natural community-specific measures (Section 5.3.2.4).

As described above in Finding 4.1.2, the Reserve System will be actively monitored and managed pursuant to the provisions of Chapter 7, *Monitoring and Adaptive Management Program*, to ensure compliance with the Plan and achieve the biological goals and objectives identified at the landscape, community, and Covered Species planning levels.

Therefore, CDFW finds that the acquisition, enhancement, and restoration of the Reserve System and conservation measures in the Plan Area provides, as needed, for the conservation of species: conservation, restoration, and management of representative natural and seminatural landscapes to maintain the ecological integrity of the large existing habitat blocks, ecosystem function, and biological diversity.

**Finding 4.1.4.B**

**CDFW finds that the development of reserve systems and conservation measures in the Plan Area provides, as needed for the conservation of species: the establishment of one or more reserves or other measures that provide equivalent conservation of Covered Species within the Plan Area and linkages between them and adjacent habitat areas outside the Plan Area (Section 2820(a)(4)(B)).**

Landscape Goal L-2 and the corresponding Objectives L-2.1 through L-2.5 (Section 5.2.5, *Landscape-level Biological Goals and Objectives*) describe the ways in which the Plan ensures effective movement and genetic interchange of organisms between natural communities in a manner that maintains the ecological integrity of the natural communities within the Plan Area. These Landscape-level Objectives address the following elements:

- Protection of habitat linkages between natural communities for the Covered Species (Objective L-2.1).
- Maintenance and enhancement of Reserve System permeability (Objective L-2.2).
- Establishment of east-west corridors for Covered Species along the Stream System via acquisition and restoration of riverine/riparian communities to provide movement corridors between the Valley and Foothills, and between reserves within and adjacent to the Plan Area (Objective L-2.3).

- Protection and restoration of north-south connectivity in the RAA from the border of the Plan Area A with Sutter County to the border of Yuba and Nevada Counties, an “Essential Connectivity Area” identified by the California Essential Habitat Connectivity Project (Spencer et al. 2010) and shown on Figure 5-1 (Objective L-2.4).
- Protection of upland natural communities surrounding aquatic habitats to provide the life history requirements for native amphibians and Covered Species with both aquatic and upland habitat requirements.

To address regional connectivity at the Landscape-level, the Plan includes Measure CM1 L-3 (*Connectivity and Conservation within the Region*). CM1 L-3 requires that the PCA connect the final Reserve System with conservation lands outside of the Plan Area that are associated with other regional conservation efforts (Figure 5-5). This includes protecting the Stream System to provide connectivity along the streams that flow through and beyond the Plan Area. These efforts will focus on the major stream corridors of the Bear River, Racoon Creek, Auburn Ravine, and Dry Creek, which support runs of Central Valley steelhead and Central Valley fall-/late fall-run Chinook salmon moving between the Pacific Ocean through the Sacramento River system to spawning grounds in Plan Area A. These riverine and associated riparian corridors also provide critical connections for other aquatic and terrestrial species moving through urban or cultivated agricultural areas. The PCA will also protect and manage giant garter snake habitat to provide dispersal corridors that may facilitate the colonization of habitat in Plan Area A from adjacent areas to the west in Sutter County (Figure 5-3). Providing connectivity with conservation lands outside the Plan Area will enhance regional connectivity for a diversity of native species.

To address habitat connectivity within the Plan Area, the Plan includes Measure CM1 L-4 (*Connectivity within Plan Area*). East-West connectivity within watersheds will be achieved by expanding and linking reserves with terrestrial, riparian, aquatic, and stream habitats, particularly within the Bear River, Racoon Creek, Markham Ravine, Auburn Ravine, and Pleasant Grove-Curry Creek watersheds (see Figure 3-7). Acquisition of lands for both protection and restoration, in conjunction with project-level avoidance of stream zones, will enhance connectivity within watersheds, from the western boundary of the Plan Area in the Central Valley to the upper reaches of the watersheds in the Foothills in the eastern portion of the Plan Area. The conservation strategy emphasizes restoration of riparian habitat (CM1 RAR-2, *Siting Riparian Restoration*) to reconnect fragmented habitat. Figure 5-1 shows potential linkages for east-to-west connectivity in riverine and riparian complex habitats.

The American River and Dry Creek watersheds are too fragmented and developed to consider for long-term preservation and inclusion into the Reserve System. Only a small amount of the northwest corner of the Dry Creek watershed is in the RAA. The balance of the Dry Creek watershed is in the non-participating cities and the PFG, and all of the American River watershed is in the PFG and non-participating cities. Instead, the conservation strategy for the American River and Dry Creek watersheds will focus on protection of specific Covered Species, with a particular emphasis on salmonids and those species dependent upon viable riparian corridors, such as valley elderberry longhorn beetle, western pond turtle, and the covered frogs if population(s) were to be identified within those watersheds.

Protection of the Stream System, which includes riparian communities, aquatic habitat, and other aquatic resources, is vital for ensuring the long-term viability of Covered Species. Figure 3-10 depicts the location of the Stream System. Covered Activities will avoid or minimize effects within the Stream System throughout the Plan Area (see Section 6.3.3, *Conditions to Avoid, Minimize, and Mitigate Effects*

on the Stream System). Covered Activities that affect natural communities within the Stream System boundary must contribute to restoration of the Stream System at a ratio of 1.52:1 by paying a Stream System fee (see Section 6.3.3.3.1, *Stream System Fee*). Covered Activities throughout the Plan Area must also implement Low Impact Development Standards (LIDS) (Objective L-3.1).

Conservation activities may occur in portions of Plan Area B to help achieve the biological goals and objectives related to connectivity within and adjacent to the Plan Area. Figure 5-4 depicts the location of conservation opportunities that could occur within Sutter County in Plan Areas B3 (Raccoon Creek Floodplain Conservation) and B4 (Fish Passage Channel Improvement). Conservation measures performed by the Permittees, including land acquisition, land management, and monitoring activities, within Plan Area B will count toward applicable Plan commitments. These actions will be covered by the state and federal permits.

As part of Measure CM1 L-4, the PCA will ensure that the final Reserve System provides:

- North-south connectivity within and across the North Valley and South Valley RAA (Figure 5-1) through an interconnected network of vernal pool grassland reserves.
- Connectivity of foothill oak woodlands with protected oak woodlands to the north (see Section 2.4.2, *Placer County*).
- Connectivity for Central Valley steelhead and Chinook salmon between the Sacramento River to spawning grounds in Plan Area streams.
- A network of reserves within Plan Area A that will prevent further fragmentation of the landscape and increase permeability (e.g., movement) for species to move through Plan Area A and to habitats adjacent to Plan Area A.

As the PCA is able to acquire parcels, it will remove or modify terrestrial movement barriers (such as fences, culverts, and access roads) where biologically feasible and when needed to meet the Plan's biological goals and objectives (CM2 L-3, *Maintenance and Enhancement of Reserve System Permeability*). More important, barriers to natural hydrology will be removed, thereby restoring some physical continuity between adjacent reserve parcels (i.e., where those reserve parcels are not separated by roads or other barriers that cannot feasibly be modified). Even where roads cannot be eliminated, the consistent conservation management of adjacent parcels will provide most of the reserve design benefits of large blocks of land.

Pursuant to Measure CM2 RAR-2 (*Removal and/or Modification of Barriers to Fish Passage*), the PCA will initiate partnerships with managing agencies or private parties to remove or modify two high-priority fish passage barriers: the barrier at Doty Ravine at Garden Bar Road and one other barrier identified in Table 3-5. When partnerships allow, the PCA will remove or modify up to three more of the fish passage barriers identified in Table 3-5 (see Figure 5-8). The PCA must have the cooperation of private landowners and the owner/operator to remove or modify any of these barriers. As part of this conservation measure, the PCA will initiate partnerships with managing agencies and landowners to identify and prioritize removal or modification of these barriers, and to provide planning, technical, and financial support.

The implementation of the Plan's Conservation Measures (Section 5.3) to achieve the Landscape, Natural Community, and Species-Level Goals and Objectives discussed above will result in a large,

interconnected, Reserve System that provides both east-west and north-south habitat corridors for the Covered Species within the Plan Area and beyond. Therefore, CDFW finds that the acquisition of preserves and conservation measures in the Plan Area provides, as needed, for the conservation of species, the establishment of one or more reserves or other measures that provide equivalent conservation of covered species within the Plan Area and linkages between them and adjacent habitat areas outside of the Plan Area.

**Finding 4.1.4.C**

**CDFW finds that the development of reserve systems and conservation measures in the Plan Area provides, as needed for the conservation of species: the protection and maintenance of habitat areas large enough to support sustainable populations of Covered Species (Section 2820(a)(4)(C).).**

As stated in Fish and Game Code Section 2820(a)(4)(C), the Plan Area must contain conserved habitat areas large enough to support sustainable populations of the fourteen (14) Plan Covered Species. To conserve sustainable populations of the Covered Species in the Plan Area, a Conservation Strategy was developed for each species that identifies specific biological goals and objectives on the Landscape-, Natural Community-, and Covered Species-scale (see Plan Section 5.2.7). The RAA is based on modeled suitable habitat available to be protected and conserved by the Plan that integrates newly protected lands with EXR lands (see Plan Section 5.3.1.3.5) into the Reserve System. A subset of these EXR lands will be credited to the PCA as “jump-start” lands enabling the PCA to meet the Stay-Ahead provision for the Plan (see Section 8.4.3, *Stay-Ahead Provision*, and Section 8.4.4, *Jump Start*). Table 8-1 lists the specific jump-start sites and amounts of natural communities within each site to be enrolled in the Reserve System.

The Reserve System will be assembled primarily within the Valley and Foothill regions of the RAA (Figure 5-1) and the Stream System (for acquisition of Riverine and Riparian Complex habitats), based on the location and availability of natural communities and populations of Covered Species, the acquisition commitments for the each of the conservation zones (Table 5-3 and Table 5-6), and the Stay-Ahead requirement (Section 5.3.1.2, *Tracking Progress toward Reserve System Assembly*, and Section 8.4.3, *Stay-Ahead Provision*). The assembly of the Reserve System will be a dynamic process; as new reserves are acquired, they will be acquired to expand upon and connect existing reserves where possible. Land acquired for the Reserve System within the proposed Conservation Zones (Figure 5-1) will start with a core area in each zone and prioritize building the Reserve System outward from there. This is done to ensure that, if full buildout is not reached under the Plan, the Reserve System will not be a patchwork of small reserves that will not provide the landscape-level conservation benefit intended by the Plan.

The PCA will prioritize acquisition of large blocks of habitat occupied by Covered Species. Species-specific reserve occupancy requirements are described in Section 5.3.1.6, *Species-level Reserve Design*. Additionally, the PCA will prioritize acquisition of parcels with less edge (i.e., length of boundary, perimeter) in proportion to total habitat over parcels with large amount of edge in proportion to total habitat. For example, given the same type of habitat, a large, square-shaped parcel is preferable to a long, narrow parcel of the same total area. These criteria may not apply to riverine/riparian, which are naturally more linear and narrower (i.e., have more edge) than other natural communities in the Plan Area. Finally, the PCA will focus acquisition of parcels to be used for creation, restoration, or enhancement of natural communities in areas that will reduce habitat fragmentation within the RAA.

Implementation of the Plan will result in 47,300 acres of modeled Covered Species habitat being protected and restored independent of effects (Table 5-6), with up to an additional 1,393 acres of natural community restoration dependent on effects (Table 5-4). Figure 5-6 depicts the restoration opportunity areas identified during development of the Plan.

The Reserve System will provide a means for protecting, managing, enhancing, and restoring or creating the natural and semi-natural communities and habitats that support the Covered Species. The Reserve System will mainly be located in the western and northern Valley and in the northern Foothills, regionally separated from future urban and suburban growth while providing important north-south and east-west linkages for species movement within the Reserve System and beyond the Plan Area. The geographic aspect of the conservation strategy is expressed on Figure 5-1.

The habitat protection/restoration commitments and associated Conservation Measures for each Covered Species are discussed below with regards to the life-history requirements of the species and the habitat necessary to provide a sustainable population of the species within the Plan Area based on the best available scientific information.

### **Swainson's Hawk**

Swainson's hawk inhabits grasslands, sage-steppe plains, and agricultural regions of western North America during the breeding season and winters in grassland and agricultural regions from Central Mexico to southern South America (Woodbridge et al. 1995a; Bechard et al. 2010). The majority of Swainson's hawks in California nest in Sacramento, San Joaquin, and Yolo counties with Solano, Merced, Stanislaus, Sutter, Glenn, and Colusa counties all important to the central range of the bird (Bradbury 2009). Also important are the Swainson's hawks found in Owens Valley and Klamath Basin, though these are considered part of the Great Basin population since they nest east of the Sierra crest (Bradbury 2009).

Swainson's hawk is typically present in California from early March, when individuals arrive on breeding grounds, through mid-October, when birds have departed for wintering grounds in Central and South America. In California, Swainson's hawk habitat generally consists of large, flat, open, undeveloped landscapes that include suitable grassland or agricultural foraging habitat and sparsely distributed trees for nesting (Bechard et al. 2010). Swainson's hawk usually nests in large, native trees such as valley oaks (*Quercus lobata*), cottonwoods (*Populus fremontia*), and willows (*Salix spp.*), although nonnative trees such as eucalyptus (*Eucalyptus spp.*) are also used (Bechard et al. 2010). Nests occur in riparian woodlands, roadside trees, trees along field borders, isolated trees, small groves, trees in windbreaks, and on the edges of remnant oak woodlands (Bechard et al. 2010). Nesting pairs in California have high fidelity to nesting territories and nesting trees (Fitzner 1980; Bechard et al. 2010). Many nest sites in the Sacramento Valley have been occupied annually since 1979 (Estep in prep.), and banding studies conducted since 1986 confirm a high degree of nest and mate fidelity (Estep in prep.).

Swainson's hawk requires wide-open landscapes for foraging, generally within 10 miles of their nest (California Department of Fish and Game 1994). Historically, the species used grass dominated and desert habitats throughout most of lowland California. Over the past century, conversion of much of the historic range to agricultural use has shifted the nesting distribution into open agricultural areas that mimic grassland habitats or otherwise provide suitable foraging habitat. Agricultural uses that provide

suitable foraging habitat include a mixture of alfalfa and other hay crops, grain, row crops, and lightly grazed pasture with low-lying vegetation that support adequate rodent prey populations (Estep 1989; Bechard et al. 2010). Habitats generally considered unsuitable for foraging include any crop where prey are not available due to the high density of vegetation, or have low abundance of prey (i.e., flooded rice fields, mature corn, orchards, vineyards, and cotton fields).

There are seventeen extant occurrences of Swainson's hawk nesting in the Plan Area (CDFW 2020). Within western Placer County, suitable nesting habitat for Swainson's hawk is limited to the Valley portion of the Plan Area, where abundant foraging habitat is found adjacent to suitable breeding habitat, primarily located in oak woodland/savanna and riparian corridors along Auburn Ravine, Raccoon Creek, Markham Ravine, Pleasant Grove Creek, Dry Creek, and Curry Creek.

The Plan will result in the permanent protection and restoration of riverine/riparian and valley oak woodland natural communities, for a total of 1,268 acres of nesting habitat protected and 720 acres of riparian habitat restored (Table 5-6). Additionally, the Plan will result in the protection and restoration of grasslands and vernal pool complexes, for a total of 17,003 acres of foraging habitat protected and 3,920 acres of foraging habitat restored (Table 5-6). Swainson's hawk habitat will be provided in a large, interconnected Reserve System that accommodates the large home range size for this species. The PCA will also protect at least four active nest trees (Objective SWHA-1.1, Protect Swainson's Hawk Nest Trees), and will protect at least 741 acres of modeled foraging habitat surrounding each active nest tree protected for a total of 2,964 acres of suitable Swainson's hawk foraging habitat in the Reserve System. (Objective SWHA-1.2, Protect Swainson's Hawk Foraging Habitat). The PCA will maintain or increase prey availability for Swainson's hawk by strategically planting shrubs or placing debris piles or other substrate that provides cover and refugia for prey, on at least four sites, each within a mile of one of the protected nest trees (Objective SWHA-1.3, Enhance Foraging Habitat). The PCA will also protect at least 20 isolated trees with the potential to be used as nesting sites for Swainson's hawk (Objective SWHA-1.4, Protect Isolated Trees).

Within the Valley RAA, the 20,923 acres of grassland, vernal pool grassland complex, and pasture to be protected and restored (Table 5-6) to achieve Objectives VPCG-1.1, VPCG-1.2, VPCG-1.3, and VPCG-1.4 are located within 10 miles of several documented nesting occurrences within the Plan Area and adjacent in Sacramento and Sutter counties. Additionally, achieving the natural community objectives listed above will result in the protection and restoration of at least 1,988 acres of suitable nesting habitat for Swainson's hawk within the Reserve System (Table 5-6). These protection and restoration objectives, in addition to SWHA-1.1 and SWHA-1.4, provide for the conservation of Swainson's hawk in the Plan Area.

Therefore, CDFW finds that the development of a Reserve System in the Plan Area protects and maintains habitat areas that are large enough to support sustainable populations of Swainson's hawk.

### **California Black Rail**

California black rail populations were previously thought to be restricted to the San Francisco Bay Area, Bolinas Lagoon, Tomales Bay, Morro Bay, Suisun Bay, the Delta region to White Slough in San Joaquin County, the Salton Sea area, and the Lower Colorado River Valley (Grinnell and Miller 1944; Manolis 1978; Garrett and Dunn 1981; Evens et al. 1991; Eddleman et al. 1994). In 1994, populations were

discovered in the western Sierra Nevada Foothills of Yuba County (Aigner et al. 1995), and subsequent surveys revealed previously unknown populations in the Foothills of Butte, Nevada, Placer, and San Joaquin Counties (Richmond et al. 2008). As of 2006, California black rail has been found in 103 marshes in the Foothills of Butte, Nevada, Yuba, Placer, and San Joaquin Counties, almost all below 1,155 feet (Richmond et al. 2008). California black rail occurs in a small proportion of the fresh emergent marshes in the Plan Area. There are 10 recently confirmed California black rail occurrences in Placer County (Tecklin and Beedy 2014). Additionally, of 32 wetland sites evaluated in 2014, 20 were rated as likely to contain black rails and therefore worthy of formal, protocol-level surveys to assess occupancy (Tecklin and Beedy 2014). Plan Appendix D, *Species Accounts*, provides more detail on the status and distribution of the California black rail throughout its range and in the Plan Area.

Modeled California black rail habitat is found in the Plan Area within the fresh emergent marsh land-cover type (Plan Tables 3-9 and 4-10). California black rail modeled habitat is defined as fresh emergent wetlands greater than 0.2 acre in the Plan Area (Richmond et al. 2010). The scale of the land-cover data and mapping is too coarse to specifically identify suitable year-round black rail habitat, but the estimated fresh emergent marsh component of mapped marsh complex land-cover type is a reasonable measure of modeled habitat. Based on this model assumption, there are 1,112 acres of modeled year-round habitat for the species within Plan Area A (Table 5-6).

The Plan's conservation goal for California black rail is a sustained population of the species within the Plan Area (Plan Section 5.2.7.2, Goal BLRA-1). Implementation of the Conservation Measures (including but not limited to CM1 AW-1, CM2 AW-1 through AW-8, and CM3 AW-1) to achieve the Landscape-, Natural Community-, and Species-level Goals and Objectives will result in the protection of 256 acres and restoration of 175 acres of suitable California black rail habitat, permanently protecting 56% of the modeled habitat present in Plan Area A (Table 5-6).

Conservation Measure CM1 BLRA-1 requires that the PCA, as part of the natural community protection commitments, protect at least five sites occupied by the species (detected two times during the March through July breeding period, at least 10 days apart) (Plan Section 5.3.1.6.2). As part of this requirement, occupancy of at least three sites must be demonstrated by year 20 of Plan implementation, with additional occupancy requirements at five-year intervals thereafter, totaling five occupied sites required by year 45. If additional criteria are met, up to four occupied sites may be taken by Covered Activities if eleven occupied sites are protected. California black rail protection and restoration/creation sites must have the five habitat elements described in Plan Section 5.3.1.6.2 as adapted from Richmond et al. 2010: water duration (fresh emergent marsh with permanently or semi-permanently flooded regimes), water depth (shallow, gently sloping, generally less than 1.2 inches deep), vegetation (high stem density and canopy coverage), patch size (sites at least 2 acres), and landscape factors (prioritize sites no more than 0.6 miles from other occupied sites). Implementation of CM2 BLRA-1 and CM3 BLRA-1 will ensure that the PCA will manage created/restored and protected black rail habitat as described above and as required by CM1 BLRA-1. Additionally, CM2 BLRA-2 will further enhance protected and restored/created habitat within the Reserve System by requiring the exclusion of livestock from fresh emergent marsh habitat during the breeding season (March 1 – August 15).

The implementation of the Plan Conservation Measures (Section 5.3) to achieve the Landscape-, Community-, and Species-level Goals and Objectives will result in a large, interconnected, Reserve System that is occupied by the species at no less than five Reserve sites and managed to provide

suitable habitat for the expansion of the Sierra-Nevada metapopulation within the Plan Area. Therefore, CDFW finds that the development of the Reserve System protects and maintains habitat areas that are large enough to support a sustainable population of California black rail.

### **Western Burrowing Owl**

Western burrowing owl ranges from southern Canada southward into the western half of the United States and into Baja California, Mexico, and central Mexico (Bates 2006). The species is widely distributed in grassland habitat throughout the lowlands of California but has been extirpated from a portion of its former range. Breeding in Central California has been reduced to the Central Valley, southern San Francisco Bay between Alameda and Redwood City, and areas near Livermore (Bates 2006). Wilkerson and Siegel (2010) estimated the number of burrowing owl pairs statewide from 2006-2007 at 9,298 pairs. The population of burrowing owls was found to be highly concentrated in the Imperial Valley (68.9% of the statewide population) and to a lesser extent, the Southern Central Valley (12% of the statewide population) (Wilkerson and Siegel 2010).

Western burrowing owl requires burrows for roosting and nesting (CDFW 2012). In California, nest and roost burrows are most commonly dug by ground squirrels (e.g., *Otospermophilus beecheyi*), but the owl may also use the dens or holes of other species such as badger (*Taxidea taxus*) and coyote (*Canus latrans*) (Ronan 2002). In some instances, burrowing owls have been known to excavate their own burrows (Barclay 2007 as cited in CDFW 2012) or use natural rock cavities, debris piles, culverts, and pipes (Rosenberg et al. 1998). Foraging habitat is essential to burrowing owls (CDFW 2012). Foraging occurs primarily within 600 meters of their nests during the breeding season (CDFW 2012).

There is no information on historic population size and distribution of western burrowing owl in the Plan Area and the species is currently relatively rare in the Plan Area with observations ranging from only five recently documented occurrences (CNDDDB 2020) to approximately 20 (eBird 2017). Populations in the Plan Area are on the eastern edge of the species' central range in California. The species occurs primarily as overwintering birds in the Plan Area, through a pair nested in artificial burrows in 2012, 2013, and 2015 at the Swainson's Grassland Preserve (Wages pers. comm.). Additional breeding pairs may be present within the Placer Vineyards Specific Plan area as well based on observations of a population of overwintering birds but breeding season surveys have not yet occurred (CDFW 2020). Plan Appendix D provides more detail on the status and distribution of the western burrowing owl throughout its range and in the Plan Area.

Modeled western burrowing owl habitat is restricted to the Valley Plan Area within the grassland/pasture, vernal pool complex, oak savannah, valley oak woodland, and field crop land-cover types (Plan Tables 3-9 and 4-10). There are 55,101 acres of modeled year-round habitat for the species within the Valley Plan Area (Table 5-6). The species is also likely to be found in urban, rural residential, managed open water, and agricultural community land-cover types where natural or manmade burrow or burrow surrogates are available that provide overwintering and/or breeding sites.

The Plan's conservation goal for western burrowing owl is to provide sufficient habitat to maintain or increase the population size of overwintering western burrowing owls within the Reserve System and to promote the expansion of a breeding population of burrowing owls within the Reserve System (Goal BUOW-1). Implementation of the Conservation Measures (including but not limited to CM1 VPCG-1,

CM1 VPCG-3, CM1 OW-1, CM1 AO-1, CM3 VPCG-1, CM3 VPCG-2, and CM3 OW-1) to achieve the Landscape and Natural Community Goals and Objectives will result in the protection of 17,129 acres and restoration of 4,126 acres of western burrowing owl habitat, permanently protecting 53% of the modeled habitat present in Plan Area A (Table 5-6). The PCA will prioritize protection of areas occupied by western burrowing owls within the previous five years (CM1 BUOW-2). The PCA will protect ground squirrel populations on the Reserve System lands, providing prey and burrows for western burrowing owl (CM2 VPCG-3). The species-specific biological objective for this species (Objective BUOW-1.1 Protect and Manage Ground Squirrel Colonies) will provide at least three protected ground squirrel colonies on three separate sites (one by year 15 and at least two more by year 30) that will provide nesting opportunities for western burrowing owl or will provide five artificial burrows as substitute for each ground squirrel colony if ground squirrel colonies are not available to protect (CM1 BUOW-1).

The implementation of the Plan Conservation Measures (Section 5.3) to achieve the Landscape-, Community-, and Species-level Goals and Objectives will result in a large, interconnected, Reserve System that is occupied by the species and managed to expand the population of overwintering owls and breeding pairs within the Plan Area. Therefore, CDFW finds that the development of the Reserve System protects and maintains habitat areas that are large enough to support a sustainable population of western burrowing owl.

### **Tricolored Blackbird**

Tricolored blackbird is largely endemic to California; more than 99 percent of the global population occurs in the state. As of 2014, Placer County supported an estimated 12 percent of the statewide tricolored blackbird breeding population (Meese 2014). Both the CNDDDB and Tricolored Blackbird Portal (UC Davis 2020) identify approximately 15 active or recently active colony sites within the Plan Area, with most of those occurrences found within the RAA and Existing Protected Areas (CDFW 2020). Plan Appendix D, *Species Accounts*, provides more detail on the status and distribution of the tricolored blackbird throughout its range and in the Plan Area.

The Plan models two types of habitat for tricolored blackbirds, nesting habitat and foraging habitat, both of which are found in the Valley and in the western portion of the Foothills below an elevation of 300 feet (Plan Tables 3-9 and 4-10). Tricolored blackbirds have three basic requirements for selecting their breeding colony sites: open accessible water within 1,500 feet of a colony site; a protected nesting substrate, including either flooded, thorny, or spiny vegetation (e.g., cattails, bulrushes, and blackberries); and suitable foraging habitat providing adequate insect prey within a few miles of the nesting colony. Foraging habitat in all seasons includes annual grasslands, vernal pool complexes, seasonal wetlands, valley foothill riparian, and agricultural fields (e.g., large tracts of alfalfa with continuous mowing schedules and recently tilled fields). Based on the species habitat model, the Plan identifies 633 acres of suitable nesting habitat and 60,974 acres of foraging habitat within Plan Area A.

The Plan's conservation goal for tricolored blackbird is a sustained population of the species within the Plan Area (Plan Section 5.2.7.4, Goal TRBL-1). Implementation of the Conservation Measures found in Plan Section 5.3 (including but not limited to CM1 AW-1, CM1 AO-1, CM1 VPCG-1 through VPCG-3, CM2 AW-1 through AW-8, CM3 VPCG-1 and -2, and CM3 AW-1) to achieve the Landscape-, Natural Community-, and Species-level Goals and Objectives will result in the protection of 18,325 acres (187 nesting, 18,138 foraging) and restoration of 4,087 acres (87 nesting, 4,000 foraging) of suitable

tricolored blackbird habitat, permanently protecting 50% (73% nesting, 49% foraging) of the modeled habitat present in Plan Area A (Table 5-6).

As described in Plan Section 5.3.1.6.4, Conservation Measure CM1 TRBL-1 requires that the 22,138 acres of protected and restored foraging habitat be located within three miles of the 187 acres of protected nesting habitat in the Reserve System. The PCA will prioritize foraging habitat for protection by locating areas that are frequently used by foraging tricolored blackbirds via pre-acquisition or road-side surveys. Additionally, the PCA will protect at least two tricolored blackbird colonies by Year 15 and another three colonies by Year 30, for a total of five colonies, with at least 200 acres of protected foraging habitat within 3 miles of each protected colony. These protected colonies shall be located within 1,640 feet of open water. Within the Reserve System, the PCA will document at least five breeding colonies that have each supported a minimum of 1,500 individuals for at least one breeding season during the permit term. Finally, the 87 acres of restored or created nesting habitat will include at least five fresh emergent wetlands that provide suitable nesting habitat (CM3 TRBL-1). These wetland sites shall be at least two acres in size, within 1,640 feet of open water, and will have at least 200 acres of suitable foraging habitat adjacent to nesting habitat that is protected. Expanding an existing fresh emergent wetland may count toward achieving this objective if at least two acres are restored/created adjacent to an existing wetland.

The protected and restored/created tricolored blackbird nesting and foraging habitat within the Reserve System will be maintained by the PCA to benefit the species (Plan Section 5.3.2.4.3). The PCA will manage and enhance fresh emergent wetland vegetation to provide suitable tricolored blackbird nesting habitat in the Reserve System by maintaining large continuous stands of bulrush/cattail that are at least 30-45 feet wide at a ratio of 50:50 to 60:40 bulrush/cattail marsh to open water in areas intended to support nesting (CM2 TRBL-1). The PCA will protect stands of Himalayan blackberry that have supported an active tricolored blackbird nest colony within the prior three years in addition to avoiding removal of known occupied stands on the Reserve System unless the colony site has been abandoned for at least 10 breeding seasons (CM2 TRBL-2). The PCA will monitor sources of predation on tricolored blackbird nests and if monitoring indicates detrimental effects on tricolored blackbirds, develop a predator management plan (CM2 TRBL-3).

The implementation of the Plan Conservation Measures (Section 5.3) to achieve the Landscape-, Community-, and Species-level Goals and Objectives will result in a large, interconnected, Reserve System that is occupied by the species with no less than five breeding colony sites permanently protected that support a minimum of 1,500 individuals for at least one nesting season. Therefore, CDFW finds that the development of the Reserve System protects and maintains habitat areas that are large enough to support a sustainable population of tricolored blackbird.

### **Giant Garter Snake**

The giant garter snake is endemic to California, found only in the Sacramento and San Joaquin Valleys. Records of giant garter snake coincide roughly with the historical distribution of the large flood basins, freshwater marshes, and tributary streams of the Central Valley of California (Plan, Appendix D). Although the western third of the Plan Area occurs within the Central Valley and supports numerous low-elevation tributaries and wetlands that could have provided suitable habitat for giant garter snake, there are no historic or current records for this species in the Plan Area. A population of giant garter

snake occurs immediately to the west and south of the Placer county line in the Sutter and Natomas Basins of Sutter and Sacramento Counties, with the closest occurrence recorded in the Natomas Basin of Sacramento County, approximately 1.5 miles to the southwest of the Placer county line (Plan Figure 5-3, *Potential Giant Garter Snake Dispersal Corridors*).

Dudek Consulting (2014) identified suitable habitat for giant garter snake within the Plan Area from approximately Sheridan south to the area of Baseline Road and South Brewer Road (U.S. Fish and Wildlife Service 1999, 2006; Dudek Consulting 2014). Several locations within this area are used for growing rice, and the associated agricultural ditches, wetlands, and sloughs containing emergent vegetation in conjunction with suitable adjacent upland habitat could be used by giant garter snake during both the active and inactive seasons (Dudek Consulting 2014).

Giant garter snake is dependent on ponds, fresh emergent marsh, flooded rice, and riverine habitats for aquatic habitat, and associated upland habitats (such as annual grassland, pasture, vernal pool complex, and croplands) located within 200 feet of the edge of aquatic habitats, which the Plan models as habitat for giant garter snake (Appendix D; Plan Table 3-9). Modeled year-round suitable habitat in the Plan Area is only found in the far western portion of the Plan Area in the Valley, below 100 feet in elevation. Individuals have been found using burrows as far as 164 ft from marsh edges during the active season, and as far as 820 ft from the edge of wetland habitats while overwintering, presumably to reach hibernacula above the annual high water mark (Hansen 1986, Wylie et al. 1997, USFWS 1999). The species habitat model in the Plan uses 200 feet from the edge of aquatic habitat to define upland habitat for the species. This relatively narrow habitat definition amounts to an estimated total of 23,049 acres of modeled habitat (19,511 acres aquatic, 3,537 acres upland) in the Valley portion of Plan Area A (Plan Table 5-6).

The Plan's conservation goal for giant garter snake (Goal GGS-1) provides protected giant garter snake habitat to facilitate the expansion of this species into the Reserve System. As described in Plan Section 5.2.7.5, achieving the landscape-level biological goals and objectives (Objectives L-1.1, L-2.1, L-2.2, L-3.1, and L-3.3) will result in the establishment of a large, interconnected Reserve System with upland and aquatic habitat for the giant garter snake, enabling the species to disperse between habitat areas and facilitating genetic exchange if the species occupies the Plan Area in the future.

Achieving Objective GGS-1.1 will result in the protection of 2,000 acres of flooded rice land (or fresh emergent marsh as a seasonal equivalent) and associated water supply, which will be managed to provide aquatic and adjacent upland habitat for giant garter snake. Protection of the 2,000 acres of rice and additional protection and restoration of aquatic and wetland natural communities to meet the biological goals and objectives will result in the protection of 2,702 acres and restoration of 529 acres of aquatic habitat and the protection of 1,763 acres and restoration of 449 acres of upland habitat for giant garter snake in the Plan Area (Plan Table 5-6).

The protection commitment of 2,000 acres of rice land will provide habitat to facilitate the expansion of giant garter snake into Plan Area A and will include associated drainage and irrigation channels, upland areas along channel edges, and field banks to provide upland overwintering and movement habitat for giant garter snake. Because there are no known occurrences of giant garter snake in Plan Area A, the PCA will focus acquisition of rice lands (and preservation and restoration of fresh emergent wetland) adjacent to potential dispersal corridors (Raccoon Creek, Auburn Ravine, King Slough, Pleasant Grove

Creek, and Curry Creek) in the western portion of the RAA, to facilitate the colonization of the Reserve System from the adjacent populations in the Sutter and Natomas Basins by way of the East Side Canal, Cross Canal, and Pleasant Grove Creek Canal (Figure 5-3). Acquisition will focus on facilitating the colonization of the Reserve System by giant garter snake however, if giant garter snake is found within the Plan Area, priority will be given to occupied sites. Land acquisition will include the necessary acquisition of water rights or other mechanisms to ensure adequate perennial water supply to support the species year-round, including suitable water supply in associated canals and ditches when rice fields are dry (CM1 GGS-1, Section 5.3.1.6.5).

The habitat protection and restoration commitments described above with incorporation of Existing Protected Areas (660 acres modeled aquatic habitat, 549 acres modeled upland habitat) will result in the permanent protection of approximately 29% (6,652 acres) of all modeled habitat found in Plan Area A (Table 5-6). The Plan's conservation strategy for giant garter snake, will provide for the conservation of the species by providing a large, interconnected Reserve System containing suitable aquatic and upland habitat that is contiguous with known populations of giant garter snake located immediately to the west in the Natomas and Sutter Basins. The Plan will provide opportunities for the species to colonize suitable habitat in the Reserve System and prioritize acquisition of occupied sites if the species is found within the Plan Area. Therefore, CDFW finds that the development of the Reserve System in the Plan Area protects and maintains habitat areas that are large enough to support sustainable populations of giant garter snake.

### **Western Pond Turtle**

Historically, western pond turtle occurred in suitable habitat throughout the American River drainage, including the Plan Area (USFWS 1999). Within the Plan Area and immediate vicinity there are four recently documented occurrences occurring on Raccoon Creek in the Hidden Falls Park, within a reservoir northwest of Newcastle, on the western edge of Folsom Lake, and on the southern border of Placer County at Baldwin Reservoir (CNDDDB 2020).

The Plan's conservation strategy for western pond turtle prioritizes protection or acquisition of aquatic habitats including rivers, streams, lakes, ponds, wetlands and reservoirs with emergent basking sites and upland refugia and nesting sites is of highest priority. Within the Plan Area, modeled western pond turtle aquatic habitat is defined by fresh emergent wetlands, seasonal wetland, riverine/riparian, and ponds (Plan, Appendix D). Upland habitat (nesting, burrowing habitat) is defined in the model as any land cover type within 150 feet of aquatic habitat, except for urban/suburban, rural residential, agricultural types, barren, and disturbed land cover types. Based on its presence elsewhere and historical habitat, the species' model is applied to the entire Plan Area, both the Valley and Foothills (see Table 4-10).

The Plan's conservation goal for western pond turtle is to provide suitable habitat for a sustained population of this taxon within the Reserve System (Goal WPT-1). As described in Plan Section 5.2.7.6, achieving the landscape- and natural community-level biological objectives will result in a large, interconnected Reserve System containing suitable upland and aquatic habitat for the western pond turtle (Objectives L-1.1, L-2.1, RAR-1.1, RAR-1.2, RAR-1.3, VPG-1.1, VPG-1.2, VPG-1.3, VPG-1.4, OW-1.1, OW-1.2, and VOW-1.4), enabling the species to disperse between primary habitat areas, and facilitating genetic exchange. The maintenance and enhancement of Reserve System permeability will facilitate

western pond turtle movement through the Reserve System (Objective L-2.2), and implementation of LIDS will protect water quality for western pond turtle in its aquatic habitat (Objective L-3.1; CM4 L-1). The reduction of invasive non-native plant species could minimize degradation of western pond turtle habitat (e.g., controlling plants that invade open basking sites), and the control of non-native invasive animal species will minimize predation of young western pond turtles by invasive predators (Objective L-3.2; CM2 WPT).

Achieving Objectives WPT-1.1 and WPT-1.2 will protect 2,800 acres and restore 1,850 acres of suitable western pond turtle aquatic habitat and protect 3,859 acres and restore 1,930 acres of associated western pond turtle upland habitat (Plan Table 5-6). The 10,439 acres of habitat protection and restoration commitments, combined with Existing Protected Areas (1,053 acres aquatic, 1,970 acres upland) will result in the permanent protection of roughly 55% of the 24,507 acres of modeled habitat in Plan Area A.

The Plan's conservation strategy for western pond turtle, will provide for the conservation of the species by providing a large, interconnected Reserve System containing suitable aquatic and upland habitat capable of supporting all life stages of the species within both the Valley and Foothills. Reserve lands will be adaptively managed for the benefit of the species. The Plan will provide opportunities for the species to colonize suitable habitat in the Reserve System from populations within and adjacent to the Plan Area and will prioritize acquisition of occupied sites where the species is found within the Plan Area. Therefore, CDFW finds that the development of the Reserve System in the Plan Area protects and maintains habitat areas that are large enough to support sustainable populations of western pond turtle.

### **Foothill Yellow-legged Frog**

Foothill yellow-legged frog occupies rocky streams in valley-foothill hardwood, valley foothill hardwood conifer, valley foothill riparian, ponderosa pine, mixed conifer, coastal scrub, mixed chaparral, and wet meadow habitat types (Zeiner et al. 1988) from sea level to 6,370 feet (Jennings and Hayes 1994). It is nearly always found within a few feet of water. Foothill yellow-legged frog is frequently found in moving but not swiftly flowing water (Stebbins 1954). The species is most common along streams with rocky bottoms but has also been found along streams with mud bottoms (Stebbins 1951). Foothill yellow-legged frog requires permanent streams or, at a minimum, streams where pools persist through the dry season (Stebbins 1951). Foothill yellow-legged frog exhibits fidelity to breeding sites, using the same areas for reproductive activity annually for many years (Kupferberg 1996; Wheeler 2006). Females tend to move greater distances than males during and following the breeding season (Wheeler et al. 2006). Little information is available regarding the distances foothill yellow-legged frog will travel. Twitty et al. (1967) observed that newly metamorphosed foothill yellow-legged frogs consistently moved upstream during fall and winter over a three-year period. Foothill yellow-legged frogs are usually absent from habitats where introduced aquatic predators, such as sunfish (*Lepomis* spp.) and bullfrogs (*Lithobates catesbeianus*), are present (Jennings and Hayes 1994).

There is very little information on the historical occurrence of foothill yellow-legged frog in Placer County. There are sixty-one recent records (1998–2019) for this species in Placer County outside of the Plan Area (CDFW 2020). However, there are no documented occurrences of foothill yellow-legged frog within the Plan Area (Dudek 2014). The closest extant occurrence of foothill yellow-legged frog to the

Plan Area is located just downstream of the Clementine Reservoir, approximately 2.5 miles east of the northeastern boundary of the Plan Area. Additional occurrences are located at Dog Bar Bridge along the Bear River (just over the border in Nevada County), the Bear River upstream of Rollins Reservoir and upstream of Lake Combie, further upstream on the North Fork American River, and along the Middle Fork American River (just south of the border in El Dorado County) (CDFW 2020; Dudek 2014).

Foothill yellow-legged frog is dependent on riverine habitat, which the Plan models as year-round habitat (Table 3-9). Although foothill yellow-legged frog is found at lower elevations down to sea level, the only suitable stream habitat in the Plan Area is found in the Foothills. Modeled year-round habitat for foothill yellow-legged frog is defined by riverine land cover above 500 feet in elevation (Table 4-10). This relatively narrow habitat definition amounts to an estimated total of 1,837 acres of year-round habitat in the Foothills Plan Area (Plan Table 5-6).

The Plan's conservation goal for foothill yellow-legged frog is to provide suitable habitat to facilitate the expansion of this species into the Plan Area. As described in Plan Section 5.4.7, achieving the Plan's biological goals and objectives will result in a large interconnected Reserve System that provides riverine and riparian habitat for foothill yellow-legged frog, minimizes edge effects of development, and potentially facilitates movement and genetic exchange between populations if foothill yellow-legged frogs expand into the Plan Area. Achieving the Plan's biological goals and objectives will also minimize degradation of foothill yellow-legged habitat from urban stormwater runoff and reduce non-native species that may adversely affect foothill yellow-legged frog, such as bullfrogs. Achieving the species-level biological goals and objectives will result in the protection of 83 acres and restoration of 83 acres of foothill yellow-legged frog habitat in the Plan Area (Table 5-6; Objective FYLF-1.1, Protect Foothill Yellow-legged Frog Riverine Habitat; Objective FYLF-1.2, Protect Riparian Habitat for Foothill Yellow-legged Frog; Objective FYLF 1.3, Restore Riparian Habitat for Foothill Yellow-legged Frog). If foothill yellow-legged frogs are found within the Plan Area, the PCA will attempt to acquire occupied sites because foothill yellow-legged frog uses the same sites for breeding year after year.

Achieving Objectives FYLF-1.1 through 1.3 (Plan Section 5.2.7.7) will provide for the conservation and recovery of foothill yellow-legged frog in Plan Area A by protecting 6 miles of in-stream habitat (this is the extent of modeled habitat available for protection in the RAA), protecting 83 acres of adjacent riparian habitat, and restoring 83 acres of riparian habitat for foothill yellow-legged frog, including open areas suitable for supporting the species. Additionally, the Stream System Conditions on Covered Activities (Plan Section 6.3.3) are designed to incentivize avoidance and minimization of effects on the Stream System (Plan Section 3.2.7) and avoid potential impacts to modeled foothill yellow-legged frog habitat through the application of variable-width Stream System avoidance buffers for Covered Activities that will avoid additional habitat beyond the acquisition and restoration commitments in Objectives FYLF-1.1 through 1.3.

The habitat protection and restoration commitments described above with incorporation of existing protected areas (11 acres) will result in the permanent protection of approximately 10% (178 acres) of all modeled habitat found in Plan Area A (Table 5-6). The Plan's conservation strategy for foothill yellow-legged frog, described above, will provide for the conservation of the species by permanently protecting modeled suitable habitat within the Plan Area, providing opportunities for this species to occupy suitable habitat in the Plan Area, and prioritizing acquisition of occupied sites if the species is found within the Plan Area. Therefore, CDFW finds that the development of the Reserve System protects and

maintains habitat areas that are large enough to support sustainable populations of foothill yellow-legged frog.

### **California Red-legged Frog**

California red-legged frog uses a variety of habitat types including various aquatic, riparian, and upland habitats (USFWS 2002). California red-legged frog can use many aquatic systems, provided a permanent water source is nearby, however, individual frogs may complete their entire life cycle in a single pond or other aquatic site that is suitable for all life stages (USFWS 2001). California red-legged frog breeds in aquatic habitats such as marshes, ponds, deep pools and backwaters in streams and creeks, lagoons, and estuaries. An important factor influencing the suitability of aquatic breeding sites is the general lack of introduced aquatic predators (USFWS 2002). California red-legged frog spends a substantial amount of time resting and feeding in riparian and emergent vegetation which provides good foraging habitat and may facilitate dispersal in addition to providing pools and backwater aquatic areas for breeding. Dispersal sites typically provide forage or cover opportunities and include boulders or rocks and organic debris such as downed trees or logs; industrial debris; and agricultural features such as drains, watering troughs, spring boxes, and abandoned sheds (USFWS 2001). California red-legged frog also uses small mammal burrows and moist leaf litter (Jennings and Hayes 1994).

During summer, California red-legged frog generally remains in or near water. If water is not available, it often disperses from the breeding habitat to forage and seek summer habitat (USFWS 2002). This habitat may include shelter under boulders, rocks, logs, industrial debris, agricultural drains, watering troughs, abandoned sheds, or hay ricks. California red-legged frog will also use small mammal burrows and moist leaf litter and incised stream channels (Jennings and Hayes 1994; USFWS 1996, 2002). This summer movement behavior, however, has not been observed in all California red-legged frog populations studied.

During the wet season, dispersing California red-legged frog can travel long distances (over 2 miles) over land, mostly in point-to-point, straight-line trajectories, between breeding and non-breeding locations, through a diversity of pristine and modified habitats including pastureland, fallow and planted agricultural land, forestland, fields, and grasslands (Bulger et al. 2003; Fellars and Kleeman 2007). Nonmigratory frogs generally stay year-round at a breeding location and rarely travel more than 100 feet from water (Bulger et al. 2003; Fellars and Kleeman 2007). During dry periods, California red-legged frog generally remains in or near water (USFWS 2002).

There are only three historical records for California red-legged frog in Placer County. Two of these are located within the Plan Area, including one near Placer County Superior Courthouse in Auburn and one near Michigan Bluff (Barry and Fellers 2013). Of these occurrences, only the population within Plan Area B5 is currently extant. This population is a large population of California red-legged frog near Michigan Bluff at Big Gun Diggings (Barry and Fellers 2013). Previously undesignated as critical habitat (USFWS 2001), 1,243 acres of the Michigan Bluff area are currently designated as critical habitat unit PLA-1 (USFWS 2010). Big Gun Diggings, now called the Big Gun Conservation Bank, was acquired by Westervelt Ecological Services in 2007 and is now privately held as a California red-legged frog habitat mitigation bank (Barry and Fellers 2013; Westervelt Ecological Services 2012). The site includes six mine tailing ponds situated on a bluff northeast of the Middle Fork of the American River.

Modeled breeding habitat for California red-legged frog (8,532 acres in Plan Area A) is defined by the following land-cover types: lacustrine (excluding the largest reservoirs such as Camp Far West, Folsom Lake), fresh emergent wetlands, seasonal wetlands, riverine, valley foothill riparian, stock ponds, urban riparian, and urban wetland at elevations above 200 feet (Plan Tables 3-9 and 4-10). Upland refugia habitat is defined as all oak woodland land-cover types, annual grassland, and pasture within 100 feet of modeled breeding habitat. Movement habitat is defined as all oak woodland, annual grassland, pasture, valley foothill riparian, all agricultural land-cover types, urban riparian, urban wetland, and landscape and golf course ponds beyond 100 feet but within one mile of modeled breeding habitat. Total modeled upland habitat within Plan Area A is 75,306 acres (Plan Section 4.7.8; Appendix D). Plan Area B5 Big Gun Conservation Bank is 52 acres in size (Plan Section 2.5.2).

The Plan's conservation goals for California red-legged frog are to protect occupied habitat in the Plan Area (Big Gun Conservation Bank) and provide additional, suitable California red-legged frog habitat in the Plan Area. Achieving the landscape- and natural community-level biological objectives will provide a large, interconnected Reserve System with an estimated 1,168 acres of protected and 1,241 acres of restored aquatic habitat, and 12,484 acres of protected and 160 acres of total restored upland habitat (Table 5-6) to facilitate the expansion of the California red-legged frog population in the Plan Area. Additionally, implementation of the Plan conservation strategy will minimize and potentially reduce invasive, non-native species that may adversely affect California red-legged frog, such as bullfrogs or non-native fish species; and provide at least 2,200 acres of riparian natural community and 88.6 stream miles in the Reserve System, providing habitat for the California red-legged frog and facilitating dispersal of this species. Achieving species specific biological goals and objectives (Objective CRLF-1.1, Protect Occupied California Red-legged Frog Habitat; Objective CRLF-1.1, Protect and Enhance Suitable California Red-legged Frog Habitat; Objective CRLF-2.2, Restore Suitable California Red-legged Frog Habitat) will ensure protection, restoration, and creation of habitat suitable for the colonization and expansion of a California red-legged frog in the Plan Area and acquisition of at least four acres of occupied California red-legged frog habitat in the Plan Area at Big Gun Conservation Bank.

The habitat protection and restoration commitments described above with incorporation of existing protected areas will result in the permanent protection of approximately 25% (2,528 acres aquatic habitat, 18,630 acres upland habitat) of all modeled species habitat found in the Plan Area (Table 5-6). The protection, restoration, management, and enhancement of suitable California red-legged frog habitat in the Plan Area, and the protection of occupied habitat in Plan Area B5, will provide for the conservation of the species in the Plan Area. Therefore, CDFW finds that the development of the Reserve System in the Plan Area protects and maintains habitat areas that are large enough to support sustainable populations of California red-legged frog.

### **Salmonids**

The Central Valley fall-/late fall-run Chinook salmon evolutionarily significant unit (ESU) includes fall-run and late fall-run Chinook salmon in the Sacramento and San Joaquin Rivers and their tributaries. In the Plan Area, this ESU is present in the Raccoon Creek, Auburn Ravine, and Dry Creek watersheds and absent from the Pleasant Grove, Yankee Slough, Markham Ravine and Curry Creek watersheds, most likely because of water quality (e.g., temperature) and the lack of spawning and rearing habitat. Fall-run Chinook from hatcheries on the Feather River have been stocked in the tributaries of Dry Creek (ECORP 2003). The Bear River supports an occasional run of adult fall-run Chinook salmon in years when flows

are sufficient to provide passage (Yoshiyama et al. 1996). Plan Appendix D, *Species Accounts*, provides more detail on the status and distribution of the Central Valley fall-/late fall-run Chinook salmon ESU throughout its range and in the Plan Area.

The Central Valley steelhead Distinct Population Segment (DPS) occurs in the Sacramento and San Joaquin Rivers, along with all of their tributaries (National Marine Fisheries Service 2009). The Sacramento–San Joaquin steelhead run tends to use primarily tributaries of the Sacramento, Feather, Yuba, and lower American river drainages. In the Plan Area, Central Valley steelhead is known to be present in the Bear River, Raccoon Creek (including the Doty Ravine tributary), Auburn Ravine, and Dry Creek (including Secret Ravine and Miners Ravine tributaries) (Bailey 2003; Placer County 2009; National Marine Fisheries Service 2009). Raccoon Creek and one of its tributaries, Doty Creek, Dry Creek and two of its tributaries, Secret Ravine and Miners Ravine, are listed as Critical Habitat for Central Valley steelhead (National Marine Fisheries Service 2005). Appendix D, *Species Accounts*, provides more detail on the status and distribution of steelhead throughout its range and in the Plan Area.

The Plan’s habitat model for Central Valley steelhead within the Plan Area uses the spawning, migration, and rearing habitat identified by National Marine Fisheries Service (2014) in the Recovery Plan for Central Valley steelhead. The habitat model for Central Valley fall-/late fall-run Chinook salmon uses this model as well. Life history requirements are similar enough between these two species to generalize the application of modeled habitat for Central Valley steelhead to Central Valley fall-/late fall-run Chinook salmon at the level of scale and precision of this habitat model. Occurrence data for Central Valley fall-/late fall-run Chinook salmon within the Plan Area were generally consistent with the Central Valley steelhead model. Within the Plan Area Chinook salmon and Central Valley steelhead use 122 miles, or roughly 60%, of all major streams in western Placer County. They occur in the Bear River and the Raccoon Creek, Auburn Ravine, and Dry Creek Stream Systems (see Plan Table 3-17 and Table 3-18 for summaries of salmonid habitat in the Plan Area and Appendix D Species Maps 9 and 10 for visual depictions of these habitats).

The Plan’s conservation goal for Chinook salmon and Central Valley steelhead is increased spawning, rearing, and migratory success of the covered salmonids in the Auburn Ravine, Raccoon Creek, and Dry Creek watersheds (Plan Section 5.2.7.9, Goal FISH-1). Implementation of the Landscape- and Natural Community Conservation Measures found in Plan Section 5.3 (including but not limited to CM1 RAR-1, CM1 RAR-2, and CM3 RAR-1) with Species Conservation Measure CM1 FISH-1 will protect 88.6 stream miles in the Reserve System, including 25 stream miles of salmonid spawning habitat and 10 miles of salmonid migrating habitat, primarily on stream reaches along Raccoon Creek, Doty Ravine (a major tributary of Raccoon Creek), and Auburn Ravine (Objective FISH-1.1). 558 acres of riparian habitat along salmonid spawning stream reaches and 342 acres of riparian habitat along salmonid migrating reaches (primarily along Raccoon Creek, Doty Ravine, and Auburn Ravine) would also be protected to achieve Objective FISH-1.2. To protect and improve water quality and watershed integrity in the Raccoon Creek watershed, 12,490 acres of oak woodland and grassland would be protected in the Foothills portion of the Plan Area, and 9,869 acres in the Raccoon Creek watershed (Objective FISH-1.3). As part of the riparian natural community restoration commitments, the PCA will acquire at least 142 acres along spawning reaches and 74 acres along salmonid migrating reaches for restoration of riparian habitat (CM2 FISH-1). Up to an additional 110 acres will be acquired along salmonid streams to restore riparian habitat to meet a 1.5:1 ratio of restored: affected. Restoration of riparian habitat to benefit covered salmonids will occur primarily along Raccoon Creek, Doty Ravine, and Auburn Ravine.

In addition to the habitat protection and restoration commitments described above, the PCA will enhance the in-stream/riverine component of the riverine and riparian natural community to improve habitat for covered fish, natural community function, connectivity, and water quality. Enhancement will occur in streams on the Reserve System and outside of the Reserve System (i.e., in stream lengths not protected through fee title or conservation easements), in partnership with private and public landowners. As part of CM2 RAR-2, The PCA will initiate partnerships with managing agencies or private parties to remove or modify two high-priority fish passage barriers: the barrier at Doty Ravine at Garden Bar Road and one other barrier identified in Plan Table 3-5. When partnerships allow, the PCA will remove or modify up to three more of the fish passage barriers identified in Table 3-5 (see Figure 5-8). As part of this conservation measure, the PCA will initiate partnerships with managing agencies and landowners to identify and prioritize removal or modification of these barriers, and to provide planning, technical, and financial support. With implementation of CM2 RAR-3, the PCA will seek to modify all unscreened diversions on salmonid streams in the Reserve System. In some cases, diversions on the Reserve System may be owned or held under easement by a water agency or a private party. In such cases, the PCA will work with these parties to modify unscreened diversions, where feasible and if agreed to by the owner or easement holder. Finally, as part of CM2 RAR-4 the PCA will implement a number of in-channel enhancement measures to improve habitat for the Covered Species. Specific actions that will benefit steelhead and Chinook salmon include: reconstruction of the channel geometry to a more natural local slope, length, sinuosity, and dimensions; installation of large woody material and other in-stream structural elements, such as rocks and boulders, to improve channel complexity and in-stream cover conditions for covered fish species and to promote recruitment of woody material; removal of armored levees along stream channels and replacement with earthen levees to allow natural geomorphic processes; and replenishment and/or cleaning of spawning gravel.

In addition to project-specific mitigation (i.e., improvement of in-channel features sufficient to meet a 1.5:1 ratio of enhanced to affected), the PCA may conduct in-channel improvement measures and riparian restoration within and along the salmonid-bearing channels west of Placer County in Sutter and Sacramento Counties (e.g., Raccoon Creek, Doty Ravine, and Auburn Ravine). The Plan does not commit to conducting in-channel improvement in Plan Area B3 and B4 (Figure 5-4); actions may be conducted if funding is available. In-channel improvement and riparian restoration conducted by the PCA in Plan Area B3 and B4 will not contribute toward meeting project-specific mitigation requirements.

The implementation of the Plan Conservation Measures (Section 5.3) to achieve the Landscape-, Community-, and Species-level Goals and Objectives will result in a large, interconnected, Reserve System that will benefit covered salmonids through the protection and management of 2,200 acres of the riverine and riparian natural community, the enhancement of this natural community through removal and/or modification of barriers to fish passage, improvement of in-channel features, and non-native animal species control. Extensive amounts of high-quality spawning, rearing, and migration habitat will be protected for these species within the Raccoon Creek, Auburn Ravine, and Dry Creek watersheds, consistent with the Central Valley Chinook and Steelhead Recovery Plan (National Marine Fisheries Service 2014). The application of LIDS will improve water quality for covered fish species. The restoration of 1,060 acres of riparian natural community will further benefit these species by providing cover and shade for thermoregulation and by providing vegetation that is a source of invertebrates upon which the covered salmonids feed. Therefore, CDFW finds that the development of the Reserve System protects and maintains habitat areas that are large enough to support sustainable populations of Chinook salmon and steelhead.

### **Valley Elderberry Longhorn Beetle**

Valley elderberry longhorn beetle is endemic to the upland riparian areas of the Central Valley of California (Linsley and Chemsak 1972). The range of valley elderberry longhorn beetle extends from Shasta County in the north to Fresno County in the south, mostly concentrated at elevations below 3,000 feet in the watersheds of the American, San Joaquin, and Sacramento Rivers. In the Plan Area, valley elderberry longhorn beetle is known to occur in the American River watershed below Auburn in the vicinity of Folsom Lake, in the Dry Creek watershed along Secret Ravine and Miners Ravine, and at the Silvergate Mitigation Bank. The CNDDDB lists 15 occurrences of valley elderberry longhorn beetle in the Plan Area (CDFW 2020). Appendix D, *Species Accounts*, provides more detail on the status and distribution of the valley elderberry longhorn beetle throughout its range and in the Plan Area.

Valley elderberry longhorn beetle depends on its host elderberry shrubs in valley foothill riparian and valley oak woodlands. The Plan models year-round habitat as riparian and valley oak woodland that supports the valley elderberry longhorn beetle, which occurred historically along low-elevation creeks, streams, and rivers throughout western Placer County up to an elevation of 650 feet mean sea level (Plan Tables 3-9 and 4-10). The presence of host elderberry plants could not be determined from the land-cover data; therefore, modeled habitat for valley elderberry longhorn beetle is likely an overestimate of occupied habitat. Within the Plan Area, there are 6,367 acres of modeled valley elderberry longhorn beetle habitat occurring in both the Valley and Foothills (Plan Table 5-6).

The Plan's conservation goal for valley elderberry longhorn beetle is a sustained population of this species in the Reserve System (Goal VELB-1). Implementation of the Plan's Conservation Measures to achieve the landscape-level biological objectives will provide a large, interconnected Reserve System that minimizes edge effects of development and facilitates movement and genetic exchange between valley elderberry longhorn beetle populations (CM1 L1 through L5, CM2 L-1 through L-3). Achieving the natural community-level biological goals and objectives will result in the protection of 2,313 acres and restoration of 1,553 acres of habitat for this species, 68% of the modeled habitat in Plan Area A (Table 5-6) (CM1 RAR-1, CM1 RAR-2, CM1 OW-1, and CM1 OW-2). The species-specific biological objective (Objective VELB-1.1, Restore Valley Elderberry Longhorn Beetle Habitat) will ensure that the restored riparian natural community in the Reserve System will include appropriate habitat components for valley elderberry longhorn beetle (i.e., elderberry shrubs, consistent with USFWS standards) (CM3 RAR-1 and CM3 VELB-1). If the proposed maximum allowable effects on riverine/riparian complex and valley oak woodland occur (490 acres and 140 acres, respectively) up to 1,425 acres of riverine/riparian complex and 285 acres of valley oak woodland will be restored (Tables 5-4 and 5-5). Of the 1,425 acres of riverine and riparian constituent habitat restoration, 1,250 acres must be restored as riparian constituent habitat.

The implementation of the Plan Conservation Measures (Section 5.3) to achieve the Landscape-, Natural Community-, and Species-Level Goals and Objectives discussed above will result in a large, interconnected, Reserve System that is occupied by the species and managed to ensure the species' persistence within the Plan Area. Therefore, CDFW finds that the development of the Reserve System protects and maintains habitat areas that are large enough to support a sustainable population of valley elderberry longhorn beetle.

### **Vernal Pool Branchiopods**

The vernal pool fairy shrimp is endemic to vernal pools in California and Oregon. The Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon (U.S. Fish and Wildlife Service 2005) designates 104 core recovery areas for listed vernal pool branchiopods. Western Placer County includes a portion of one of these core recovery areas, the Southeastern Sacramento Vernal Pool Region, which has the greatest number of known occurrences of vernal pool fairy shrimp throughout the species' range (U.S. Fish and Wildlife Service 2005). The Plan Area is therefore important to the long-term survival and recovery of vernal pool fairy shrimp.

Vernal pool tadpole shrimp is endemic to the Central Valley of California (U.S. Fish and Wildlife Service 1994; Helm 1998; Rogers 2001). The species has patchy distribution from Shasta County in the north to Tulare County in the south, with disjunct populations occurring in Alameda and Contra Costa Counties (U.S. Fish and Wildlife Service 2007c). The largest known concentration of vernal pool tadpole shrimp is in Sacramento County (U.S. Fish and Wildlife Service 2005). The historical distribution of vernal pool tadpole shrimp in the Plan Area is unknown, and there are three known current occurrences of vernal pool tadpole shrimp in Plan Area A.

Conservancy fairy shrimp are endemic to vernal pools in California. This species is restricted to the Central Valley, except for one population in the Central Coast in Ventura County. A single male Conservancy fairy shrimp was detected in Placer County in the spring of 2007, and the species was detected again in one of 37 basins sampled on March 27, 2012 (the number of individuals and sex found in 2012 was not reported in the CNDDDB (CDFW 2020)). This occurrence is already protected at the Mariner Conservation Bank. The USFWS indicated in the 5-year review for this species that it did not have sufficient information to determine if this detection represents a population, or an anomaly, and that further surveys are required to determine if the Placer County locality represents a sustainable population of this species (U.S. Fish and Wildlife Service 2007b). This species is typically associated with large cool-water pools, which are not characteristic of the vernal pools found in Placer County. However, further surveys within the two watersheds that straddle the known occurrence may indicate that there are potentially additional occurrences of Conservancy fairy shrimp in Placer County (see Figure 5-7, *Conservancy Fairy Shrimp Survey Area*). Activities covered under the Plan will not take a Conservancy fairy shrimp until additional occurrences are found and protected.

The vernal pool branchiopod species covered by the Plan are restricted primarily to the vernal pools and seasonal wetlands that compose the vernal pool complex land-cover type in the Valley Plan Area. Within the Valley Plan Area, there are 44,278 acres of vernal pool complex natural community type (Table 3-13) with 2,230 acres of associated aquatic habitat constituents (Table 3-14). Modeled year-round habitat for vernal pool tadpole shrimp is defined by all densities of vernal pool grassland complex in the Valley (Plan Table 3-9, Table 4-10). Maps of known occurrences show that the more common vernal pool fairy shrimp is broadly distributed across modeled habitat, while vernal pool tadpole shrimp was recorded in only three locations, with one additional occurrence in a Non-participating City (Appendix D, *Species Accounts*). Conservancy fairy shrimp is not modeled because its known distribution in the Plan Area is restricted to a single vernal pool (in the Mariner Vernal Pool Conservation Bank).

The Plan's conservation strategy for the vernal pool branchiopods (summarized in Tables 5-6 and 5-8) provides protection of 17,000 acres of vernal pool complex, including at least 790 wetted acres of vernal pool constituent habitats (Objective VPCG-1.1; CM1 VPCG-1). Additionally, the Plan provides for the restoration or creation of at least 3,000 acres of vernal pool complex in the Reserve System (CM3 VPCG-

1), including at least 900 wetted acres of vernal pools and seasonal wetland habitat for covered vernal pool branchiopods, and additional acres, in-kind, to meet a 1.5:1 ratio of restored to affected habitat (Objective VPCG-1.2; CM3 VPB-1). If the proposed maximum allowable effect occurs, restoration totals will be 900 acres of vernal pool constituent habitat, of which a minimum of 326 acres would be delineated as vernal pool wetlands (CM3 VPCG-1) (Table 5-4). The Reserve System will include sufficient occupied vernal pool fairy shrimp and vernal pool tadpole shrimp habitat to ensure an occupancy rate that is equal to or greater than the occupancy rate of vernal pools lost as a result of Covered Activities, for each species (Objectives VPB-1.1, VPB- 1.2; CM1 VPB-1). The PCA will also protect two occurrences of Conservancy fairy shrimp for the first occurrence lost and three occurrences for each additional occurrence lost (CM1 VPB-2).

The Plan's conservation strategy provides for the recovery needs of the vernal pool fairy shrimp and vernal pool tadpole shrimp in the Plan Area, consistent with the Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon (U.S. Fish and Wildlife Service 2005). The Recovery Plan has no conservation goals for Conservancy fairy shrimp in Placer County. The vernal pool recovery plan sets a goal of 85% protection of suitable vernal pool fairy shrimp and vernal pool tadpole shrimp habitat in the western Placer County core recovery area. By the end of the NCCP Permit term, 27,067 acres of vernal pool complexes (2,245 associated wetland habitat acres there within) will be protected and restored in the Plan Area (Table 5-6), which is greater than the total core area acreage recommended for protection by the Recovery Plan for western Placer County (i.e., 85% of the suitable habitat in the core area, or approximately 26,420 acres). The Plan's protected and restored vernal pool complex and associated aquatic habitat, combined with Existing Protected Areas, is equal to 61% (27,067 acres out of 44,278) of the total vernal pool complex community type found in Plan Area A (Table 5-6). The total protected and restored wetland habitat constituents within the Reserve System vernal pool complex will include 101% (2,245 acres out of 2,237) of the current wetland habitat acreage found in Plan Area A.

The implementation of the Plan Conservation Measures (Section 5.3) to achieve the Landscape, Natural Community, and Species-Level Goals and Objectives discussed above will result in a large, interconnected, Reserve System that is occupied by the three covered Vernal Pool Branchiopod species and managed to ensure their persistence. Therefore, CDFW finds that the development of the Reserve System in the Plan Area protects and maintains habitat areas that are large enough to support sustainable populations of the covered Vernal Pool Branchiopods.

**Finding 4.1.4.D**

**CDFW finds that the development of reserve systems and conservation measures in the Plan Area provides, as needed for the conservation of species: a range of environmental gradients and high habitat diversity to provide for shifting species distributions due to changed circumstances (Section 2820(a)(4)(D)).**

The Plan Area is a portion of the Sacramento Valley and Sierra Nevada foothills and lies within the Great Valley geomorphic province. Elevations in Plan Area A range from approximately 40 feet above sea level in the extreme western part of the county to 1,600 feet in the Bear River watershed north of Auburn (see Figure 3-1). However, Plan Area B2 (PCWA Zone 1 O&M) extends from Auburn east to Lake Theodore at an elevation of 2,300 feet and Plan Area B5 (Big Gun Conservation Bank) is at an elevation of 3,500 feet.

The Plan uses topography to break Plan Area A into two principal analysis zones: the Valley and the Foothills. The Valley/Foothills divide reflects the slope transition from the flat Valley to the lower Foothills that falls roughly along the 200-foot elevation contour. The Valley analysis zone extends to the east to include all of the City of Lincoln.

The generalized geology of the Plan Area reflects its transition from the Sacramento Valley bottom to the Sierra Nevada foothills (see Figure 3-2). The low-elevation Valley is composed of Quaternary alluvium and sandstone sediments derived from the Sierra Nevada. Weathering of Sierra Nevada granite and other igneous rock produces sediments, ranging from very fine clay to coarse sand, which are deposited according to the hydrologic regime, usually in layers of different permeability. On the Valley terraces, most soils are well drained, moderately deep to deep over an impermeable claypan or hardpan, with a sandy loam or loam surface layer and a dense clay subsoil. The soils on alluvial bottoms are very deep, with a sandy loam or loam surface layer and a sandy loam to clay subsoil.

The Foothills are older, tertiary rocks (granitic granodiorite on the south and metamorphic mafic rocks on the north,<sup>1</sup> with a mixed band of igneous rocks along the fault zones that parallel State Route (SR) 49 and define the eastern edge of the Plan Area). Although mafic rock weathers faster and the resulting soils differ, both formations give rise to the dense clays that accumulate on the Sacramento basin floor. At higher elevations in the Foothills, the soils are generally well-drained sandy loams and loams derived from metamorphic and volcanic parent materials.

In Western Placer County the climate is characterized by hot, dry summers and cool, rainy winters. The normal annual precipitation, which occurs primarily from November through April, ranges across the Plan Area from 18 inches on the west to 36 inches on the east (Figure 3-3). Temperature is less variable across the Plan Area. Winter temperature averages 49 degrees Fahrenheit (°F). During the summer months, average daily temperatures range from 58°F to more than 91°F, and daily high temperatures can exceed 110°F (Western Regional Climate Center 2013).

The Plan identifies the RAA as the region of the Plan Area where the vast majority of the Reserve System will be assembled. The RAA comprises a largely contiguous arc of land extending from the North Foothills west to Sutter County in the Valley and south almost to Sacramento County (see Section 1.2.5, *Plan Designations and the Stream System Definition*, and Figure 1-5) (CM1 L-4). The layout of the RAA captures and spans the elevational, temperature, precipitation and geologic substrate gradients found within the larger Plan Area A. The entirety of the RAA is approximately 69,000 acres, largely in private ownership and primarily in agricultural use. Approximately 45,300 acres (approximately 96 percent of the Reserve System) of the RAA will be acquired through fee title or easement for inclusion into the Reserve System. A small portion of the Reserve System (approximately 2,000 acres) may be acquired in the PFG, if the land meets size and connectivity requirements specified in CM1 L-2, and the biological goals and objectives of the Plan.

The Reserve System has been designed to include the full representation of the natural/semi-natural communities found in the Plan Area in order to maintain sufficient habitat diversity, species diversity, and population dynamics. The Reserve System will be assembled primarily within the Valley and Foothill regions of the RAA (Figure 5-1) and the Stream System (for acquisition of Riverine and Riparian Complex habitats), based on the location and availability of natural communities and populations of Covered Species, the acquisition commitments for each of the conservation zones (Table 5-3 and Table 5-6), and

the Stay-Ahead requirement (Section 5.3.1.2, *Tracking Progress toward Reserve System Assembly*, and Section 8.4.3, *Stay-Ahead Provision*).

Additionally, the PCA will connect the final Reserve System with adjacent conservation lands outside Placer County which are associated with other regional conservation efforts (CM1 L-3) (Figure 5-5). This will include protecting the Stream System to provide connectivity along the systems that flow through and beyond the Plan Area. These efforts will focus on the major stream corridors of the Bear River, Raccoon Creek, Auburn Ravine, and Dry Creek. The PCA will also protect and manage giant garter snake habitat to provide dispersal corridors that may facilitate the colonization of habitat in Plan Area A from adjacent areas to the west in Sutter County. These riverine and associated riparian corridors provide critical habitat linkages for several of the Covered Species in addition to other aquatic and terrestrial species moving through urban, cultivated agricultural areas, and the RAA.

As the Reserve System is acquired, the PCA will ensure that the Reserve System is managed and enhanced to maintain or increase permeability for the Covered Species (CM2 L-3). Potential management/enhancement actions include but are not limited to: removing fences that serve as barriers or hazards to wildlife movement or retrofitting them to allow wildlife movement; improving culverts and other road crossings to make them more attractive to and safer for wildlife; and managing vegetation and thatch to facilitate dispersal of species for which dense vegetation may hinder movement.

The assembly of the RAA will provide large contiguous blocks of natural/semi-natural communities for the Covered Species along north-south and east-west corridors, in addition to elevational, temperature, and precipitation gradients spanning the Plan Area. The Reserve System will be managed to provide permeability for Covered Species to move both within and outside the Plan Area in response to changing environmental conditions. Therefore, CDFW finds that the development of the Reserve System and conservation measures in the Plan Area provides, as needed for the conservation of the Covered Species, a range of environmental gradients and high habitat diversity to provide for shifting species distributions due to changed circumstances (Section 10.2.1, *Changed Circumstances*).

**Finding 4.1.4.E**

**CDFW finds that the development of reserve systems and conservation measures in the Plan Area provides, as needed for the conservation of species: for sustaining the effective movement and interchange of organisms between habitat areas in a manner that maintains the ecological integrity of the habitat areas within the Plan Area (Section 2820(a)(4)(E)).**

Over the proposed 50-year permit term for the Plan, the PCA will acquire approximately 47,300 acres of natural and semi-natural community for protection and restoration irrespective of loss (Table 5-2 and Table 5-3). Within that land, the PCA will restore at least 4,405 acres of natural communities independent of effects, and 6,220 acres of natural communities if all allowable loss proposed under the Plan occurs (Table 5-4). These protected and restored lands will augment the approximately 16,000 acres of EXR. Cumulatively, 38 percent of the present natural and semi-natural landscape in Plan Area A (Figure 1-2) would ultimately be subject to conservation management (Table 5-2). The Reserve System will mainly be located in the western and northern Valley and in the northern Foothills, regionally separated from future urban and suburban growth. The geographic aspect of the conservation strategy

RAA and ecological corridors providing habitat connectivity between natural communities inside and outside of the Plan Area are expressed on Figure 5-1.

The Plan includes multiple landscape and community-level biological goals and objectives that address the establishment of a Reserve System that provides for the effective movement and interchange of organisms in a manner that sustains the ecological integrity and processes of the protected and restored natural communities in the Plan Area (including but not limited to Goal L-2 and Objectives L-2.1 through L-2.5; and Goal L-3 and Objectives L-3.1 through L-3.3). In addition, the Plan includes species-specific biological goals and corresponding objectives for addressing movement and interchange of Covered Species that would not be addressed at the landscape or community-level (i.e. Goal GGS-1, Goal FYLF-1, Goal FISH-1).

Plan Section 5.3, *Conservation Measures*, details the conservation actions the PCA will implement to achieve these biological goals and objectives while establishing the Reserve System (Section 5.3.1), managing and enhancing the Reserve System (Section 5.3.2), and restoring/creating natural communities and Covered Species habitat (Section 5.3.3). The conservation measures, corresponding biological goals and objectives, and monitoring actions are summarized at the landscape-, community-, and species-level in Table 5-8. Specific conservation measures related to movement and interchange of organisms and particularly Covered Species include but are not limited to: CM1 L-2 through L-5, CM1 NC-1, CM1 VPCG-1, CM1 RAR-1, CM1 GGS-1, CM1 FISH-1, CM2 L-3, CM2 RAR-2, and CM3 VPCG-1. These conservation measures address the Plan's Reserve System acquisition strategy, Reserve design criteria, Reserve System connectivity both within and adjacent to the Plan Area, and larger connectivity and conservation benefits within the region. Specific examples of conservation actions to be undertaken by the PCA include: removing or retrofitting fences and culverts that act as wildlife barriers, managing vegetation and thatch to facilitate dispersal of Covered Species, and removal or modification of barriers to fish passage.

As part of the Monitoring and Adaptive Management Program (Chapter 7) the PCA will track acquisition of corridor lands. Prioritizing, acquiring, assessing, managing, and monitoring landscape linkages are important tasks at the landscape level. One of the primary goals of the conservation strategy is to sustain and enhance the effective movement and genetic exchange of native organisms within and between natural communities inside and outside the Plan Area. To monitor landscape linkages the PCA will use a combination of compliance monitoring (to ensure that land acquisition requirements are met) and effectiveness monitoring (to ensure that species utilize linkages effectively and that management actions to increase permeability or improve connectivity are successful). Effectiveness monitoring will include studies of wildlife and plants. The PCA will track permeability factors and report the number of barrier removals or modifications to the Wildlife Agencies.

The inventory phase of monitoring will prioritize acquisition of linkages, develop management protocols to enhance linkages, and develop success criteria for the effectiveness of linkages at sustaining movement and genetic exchange. Targeted studies may address whether linkages are successful at the small scale (e.g., testing use of culverts by target species using camera traps, track plates, or other techniques) and the large scale (e.g., testing connectivity by monitoring indicator species or through genetic testing of target species). The long-term monitoring phase will implement methodologies identified to assess and monitor landscape linkages.

In addition, structures specifically constructed for wildlife movement (tunnels, culverts, underpasses) will be monitored by the Permittee facility owner and repairs made promptly to ensure that the structure is in proper condition. For facilities owned by entities not participating in the Plan (e.g., California Department of Transportation) and where feasible, the PCA will secure access and data collection agreements with these entities to allow the PCA to conduct this monitoring.

Development of the Reserve System will maintain or enhance the movement and interchange of organisms between natural and semi-natural communities inside and outside of the Plan Area. Therefore, the development of reserve systems and conservation measures in the Plan Area provides, as needed for the conservation of species, for sustaining the effective movement and interchange of organisms between habitat areas in a manner that maintains the ecological integrity of the habitat areas within the Plan Area.

**Finding 4.1.5**

**CDFW finds that the Plan identifies activities, and any restriction on those activities, allowed within the reserve areas that are compatible with the conservation of species, habitats, natural communities, and their associated ecological functions (Section 2820(a)(5)).**

Plan Chapter 2 (*Land Use and Covered Activities*) Section 2.6.7, *Conservation Programs*, describes the Covered Activities associated with implementation of the conservation strategy and management activities within the Reserve System in Plan Area A for which the Plan provides take coverage. Additionally, some conservation activities may also occur outside of the Reserve System, specifically as associated with the in-stream conservation measures discussed above in Section 2.6.6, *In-Stream Activities*, and in Plan Area B Big Gun Conservation Bank (Plan Area B5), for California red-legged frog (see Figure 2-8). Conservation program Covered Activities include:

- Plan management activities such as habitat enhancement, restoration, creation, translocation, and reserve management; monitoring and research; fuel management; recreation; Reserve System infrastructure; and emergency activities (Section 2.6.7.1, *PCCP Management Activities*).
- Plan in-stream conservation activities such as in-channel habitat improvement, riparian restoration, and stream barrier removal/modification projects (Section 2.6.7.2, *In-stream Conservation Activities*).
- Non-PCCP Placer County Conservation Programs (Section 2.6.7.3).
- Resource Management Plans (Section 2.6.7.4).

The Plan will develop limited recreation opportunities within the Reserve System according to the requirements in Section 5.3.2.2.1, *Content of Reserve Unit Management Plans*, Section 5.3.2.1.2, *Content of Reserve Unit Management Plans/Allowable Recreational Uses*, and Chapter 6, *Program Participation and Conditions on Covered Activities*, Reserve Management Conditions 1 through 3.

Recreational uses will only be allowed within the Reserve System if the PCA determines that they are consistent with the biological goals and objectives of the Plan and are consistent with a reserve unit management plan approved by the Wildlife Agencies. The reserve unit management plans will describe the allowable recreational uses consistent with Section 6.3.6.1.1, *Restrictions on Recreational Uses in Future Reserves Acquired during Plan Implementation*. Allowable recreational uses in Jump-Start lands are described separately in Section 6.3.6.3, *Reserve Management Condition 3, Jump Start Lands*.

Recreational uses in the Reserve System are expected to be minimal but may include trails and associated infrastructure. The Plan limits future reserves (not including jump-start lands) to 70 total miles of trails, with an average width of 6 feet (approximately a 50-acre footprint). All new trails and recreation facilities will be constructed to minimize effects on Covered Species and vegetation communities and in compliance with the guidelines in Chapter 5, *Conservation Strategy*, Section 5.3.2.1, *Reserve Management Plans*). Covered Activities associated with trails and other public access within the Reserve System are addressed in Section 2.6.7.1, *PCCP Management Activities*. Effects from those recreation related Covered Activities are discussed separately in Section 4.4.7.3.1, *Plan Management Activities*. New trails will be sited to avoid streams and adjacent riparian vegetation in accordance with the requirements described in Chapter 5, *Conservation Strategy*, and Section 6.3.6.1.2, *New Trail Design and Use Standards for Future Reserves*.

Plan Chapter 4 (*Impact Assessment and Level of Take*) Section 4.4.7, *Conservation Programs*, analyzes the effects and potential for take associated with implementation of the conservation program activities described in detail in Chapter 5, *Conservation Strategy*. The overarching goal of the conservation program is to benefit species and natural communities. However, some temporary, negative effects may occur during the course of Plan implementation, and some land-cover types may be permanently converted (in the case of restored or created habitat).

The effects of conservation programs will be mainly in two areas: implementation of active management of reserve lands and natural community restoration. The measure of effect is proportional to the land area. The scope of reserve management plans is described in Chapter 5, Section 5.3.2.1, *Reserve Unit Management Plans*. Because of the disturbed condition of most of the lands available for incorporation into the Plan Reserve System, nearly all of the natural communities intended for preservation will require habitat management, including grazing and fuel reduction for exotic species control and fire risk management. The management plans are intended to maximize benefits for covered communities and species and minimize the adverse effects.

Plan restoration of natural communities is described in Chapter 5, *Conservation Strategy*. In general, restoration will take disturbed land and improve biological values through revegetation, reestablishment of natural hydrology, and alteration of use such as grazing regime. Some restoration will be fairly intensive and may represent a change in species presence, and there will be at least a short-term reduction in value to species. In some instances, restoration/creation may convert one community type into another. The Plan estimates that approximately 1,760 acres of agriculture (including rice land and other agriculture types) may be restored to natural communities. All restoration sites will be selected for maximum net benefit.

Chapter 6, *Program Participation and Conditions on Covered Activities*, details the Conditions on Covered Activities that will be employed by the PCA and other entities conducting the Reserve management/enhancement activities summarized above. Relevant Conditions on Covered Activities that will avoid, minimize, and in some instances mitigate effects of Covered Activities within the Reserve System are found in Section 6.3.2, *Conditions to Avoid and Minimize Effects of Specific Natural Communities*; Section 6.3.3, *Conditions to Avoid, Minimize, and Mitigate Effects on the Stream System*; Section 6.3.5, *Conditions to Minimize Effects on Covered Species*; and Section 6.3.6, *Reserve Management Conditions*.

As explained in Plan Section 8.4.1, *Criteria for Reserve System Lands*, to be incorporated into the Reserve System and counted toward Plan land acquisition commitments, all lands must be permanently protected. Permanent protection must be ensured by a conservation easement granted to the PCA or by fee title dedication of land with a conservation easement to the Reserve System (see Section 8.4.9, *Conservation Easements*). For lands owned by the PCA or a Permittee, permanent protection must be ensured through a conservation easement granted to a Wildlife Agency or an appropriate third-party easement holder approved by the Wildlife Agencies. Section 8.4.9.1, *General Guidelines*, describes the requirements all conservation easements acquired to fulfill the Plan’s land acquisition commitments must adhere to, and Section 8.4.9.2, *Prohibited Uses*, describes the activities that each conservation easement shall prohibit.

For lands with the purpose to conserve natural communities and habitat for Covered Species, the PCA will use the template “Conservation Easement” included in Appendix K, *Conservation and Agriculture Easement Templates*. For certain agricultural lands, the PCA will use the template “Agricultural Conservation Easement” also included in Appendix K, and further described in Section 8.4.9.3, *Conservation Easements on Agricultural Lands*. The PCA will follow these template conservation easements as closely as possible, any variation from the templates will require the review and approval of the Wildlife Agencies.

The Plan anticipates that circumstances, regulations, or scientific understanding may change over the 50-year permit term. The Plan anticipates there may be changes in survey protocols, BMPs, and other programs, such as LIDs. These measures will be refined throughout the life of the Plan, pursuant to the approval of new, revised, or deleted measures by the PCA, the Wildlife Agencies and other local, state or federal agencies and in accordance with the biological goals and objectives of the Plan and the adaptive management program (Section 7.6, *Adaptive Management Program Implementation*).

Therefore, CDFW finds that the Plan identifies activities, and any restriction on those activities, allowed within the Reserve System that are compatible with the conservation of Covered Species, habitats, natural communities, and their associated ecological functions.

**Finding 4.1.6**

**CDFW finds that the Plan contains specific conservation measures that meet the biological needs of Covered Species and that are based upon the best available scientific information regarding the status of Covered Species and the impacts of permitted activities on those species (Section 2820(a)(6)).**

Plan Appendix D, *Species Accounts*, summarizes ecological information, distribution, status, population trends, habitat associations, and threats to each of the fourteen Covered Species in the Plan Area. The species accounts represent the best available scientific data for each Covered Species at the time of Plan development. The species accounts are not intended to summarize all biological information known about a species. Rather, each species account summarizes scientific information that is relevant to the Plan. The biological data in the species accounts form the basis for the effects analysis (Chapter 4, *Effects of Covered Activities*) and conservation strategy (Chapter 5, *Conservation Strategy*) in the Plan.

Effects from Covered Activities and protection, restoration, and/or creation of habitat are assessed in area (acres) of modeled habitat for terrestrial Covered Species and as stream length for covered salmonids. Modeled species habitat identifies habitat suitable for each Covered Species by the species

known association with the constituent habitat types identified during landcover mapping conducted for Plan development. The habitat model is summarized in Table 3-9 and is described in the species accounts for each Covered Species in Appendix D. The resulting modeled habitat is depicted along with known species occurrences for each Covered Species in Appendix D in the species map series, *Species Modeled Habitat and Occurrence Maps*. Habitat was modeled for the Covered Species to distinguish different types of habitat used for different life history functions. Habitat functions were divided into general categories for terrestrial and aquatic species (i.e. nesting habitat, foraging habitat, aquatic habitat, upland habitat, spawning habitat, etc.).

Determinations of suitable land-cover types and additional physical parameters used for development of the Covered Species habitat models were based on available data from the CNDDDB, peer-reviewed scientific literature, survey reports, and environmental documents. Local survey data were used whenever possible to evaluate model parameters. Documented occurrences of Covered Species were used to inform development of the Covered Species models, as well as the effects analysis, and guide the development of the conservation strategy. Species-habitat relationships (based on land-cover types) were used to supplement occurrence data for Covered Species and predict where within Plan Area A the Covered Species occur or could occur. When data were inconclusive or contradictory, conservative values were assumed in estimating modeled habitat.

These habitat distribution models were used to analyze effects on Covered Species and help develop the conservation strategy. Land-cover types are the basic unit of evaluation for modeling habitat, analyzing potential effects, and developing conservation strategies for Covered Species. Most Covered Species are associated with one or more land-cover types. These land-cover associations, plus other habitat features (e.g., elevation), were used to develop habitat distribution models for all but one of the terrestrial Covered Species. Habitat for Conservancy fairy shrimp was not modeled because its known distribution is highly restricted in the Plan Area to a single vernal pool and because the type of vernal pool this species typically occurs in (e.g., generally large and turbid pools) (Helm 1998; U.S. Fish and Wildlife Service 2007) is not known to occur at other sites in the Plan Area at the time of Plan development. Vernal pools were mapped for the Plan at the coarse scale of the vernal pool complex natural community; however, this mapping did not distinguish between types and sizes of constituent vernal pools.

Chapter 5, *Conservation Strategy*, describes 21 biological goals and 58 biological objectives that will result in conservation of the Covered Species within the Plan Area. The biological goals and objectives are described at the Landscape- (Section 5.2.5), Natural Community- (Section 5.2.6), and Species-level (Section 5.2.7). Species-level goals and objectives supplement goals and objectives at the landscape- and community-levels with conservation measures tailored to meet the specific needs of individual species that cannot be fulfilled at the other planning levels (i.e. protecting individual Swainson's hawk nest trees, purchase of California red-legged frog credits at Big Gun Conservation Bank). However, the majority of conservation of Covered Species occurrences and modeled habitat will be facilitated by protecting, maintaining, enhancing, restoring, and creating appropriate habitat for these species within the context of broader landscape- and community-level goals. Table 5-6 summarizes the Covered Species habitat protection and restoration commitments by modeled habitat type, and includes a summary of protected habitats as a proportion of all modeled habitat in Plan Area A.

The Plan's biological goals, objectives, and associated conservation measures and monitoring and reporting actions are summarized in Table 5-8. Collectively, implementation of the Conservation Measures (Section 5.3) to achieve the conservation strategy's biological goals and objectives will contribute to the recovery of and mitigate for impacts to the Covered Species associated with the Covered Activities (Chapter 2).

The conservation strategy is based on the best scientific data available at the time of Plan preparation and takes into account the limitations of the baseline data available for the Plan Area. The primary sources of data used to develop the conservation strategy were the ecological accounts of Covered Species and the species distribution models (Appendix D, *Species Accounts*), and the inventory of existing conditions summarized in Chapter 3, *Physical and Biological Setting*. An independent group of scientists retained by Placer County (Section 1.4.5, *Science Advisors*) identified the ecosystems described in Chapter 3 and made recommendations for their conservation and management. Those recommendations were considered during the development of the biological goals, objectives, and conservation measures in Chapter 5, *Conservation Strategy*.

Therefore, CDFW finds that the Plan contains specific conservation measures that meet the biological needs of Covered Species and that are based upon the best available scientific information regarding the status of Covered Species and the impacts of permitted activities on those species.

**Finding 4.1.7**                      **CDFW finds that the Plan contains a monitoring program (Section 2820(a)(7)).**

Two separate types of monitoring will be required under the Plan. (Chapter 7, *Monitoring and Adaptive Management Program*). First, compliance monitoring documents the Permittee's activities and ensures that the Permittees complete obligations as specified in the Plan. Second, effectiveness monitoring measures the biological success of the Plan's conservation strategy (Chapter 5).

Compliance monitoring (also known as implementation monitoring) tracks the status of Plan implementation and documents that the requirements of the Plan are being met. Compliance monitoring verifies that the Permittees are carrying out the terms of the Plan, permits, and IA. The PCA will track compliance monitoring internally to ensure the Plan is working as planned and will provide the monitoring results to the Wildlife Agencies who will verify the Plan remains in compliance. As defined by the Plan, compliance monitoring will track the following components:

- Location, extent, and timing of loss of natural communities and constituent habitats (as defined in Table 3-5) to ensure the proposed maximum extent of take is not exceeded and to ensure compliance with the Stay-ahead requirements. This includes the time commitments for restoration/creation not tied to impacts and time commitments for other conservation measures (see Chapter 5, *Conservation Strategy*).
- Tracking impacts to Critical Habitat for vernal pool fairy shrimp.
- Habitat enhancement, restoration, and creation actions and affected acres.
- Location, extent, and timing of land acquisition, acquisition requirements, and Plan reserve establishment.
- Implementation of avoidance and minimization requirements (see Chapter 6, *Program Participation and Conditions on Covered Activities*).

- Reporting of management actions (e.g., proportion of reserves fenced) and monitoring activities (e.g., what monitoring activities were implemented and resulting reports produced) (Atkinson et al. 2004).
- Location, extent, and timing of implementation of other conservation actions (e.g., preparation of reserve specific management plans) on and off the Reserve System.

Effectiveness monitoring assesses the biological success of the Plan. Effectiveness monitoring evaluates whether the effects of implementing the conservation strategy described in Chapter 5 is consistent with the assumptions and predictions made during development of the conservation strategy (U.S. Fish and Wildlife Service and National Marine Fisheries Service 2016). Effectiveness monitoring is used to assess whether implementation of the conservation strategy is achieving the Plan’s biological goals and objectives. Effectiveness monitoring typically measures the effects of management actions on targeted communities (e.g., cover of invasive plants in vernal pools before and after grazing treatment) and Covered Species (e.g., status of overwintering and breeding western burrowing owl on the Reserve System), status and trends in resources (e.g., percent cover of land-cover types), and status and trends of stressors to the biological resources (e.g., distribution of invasive species) (Atkinson et al. 2004). To conduct effectiveness monitoring, it is necessary to first develop thresholds of success for management actions. These may include quantitative measures such as occupancy rates for vernal pool branchiopods, area of habitat suitable for Covered Species, etc. Quantifying these conditions before and after management is the basis for judging success. In most cases, success will not be immediately apparent, and monitoring must be conducted over a sufficiently long period for results to manifest.

Effectiveness monitoring is focused on the status of Covered Species within the Reserve System and the results of conservation measures, almost all of which will be implemented within the Reserve System. Understanding the effects of management actions is a critical component of the monitoring and adaptive management program. The purpose of this monitoring is to ascertain the success of management in achieving desired outcomes, to provide information and mechanisms for altering management if necessary, and to evaluate whether the conservation strategy described in Chapter 5 was successful.

**Finding 4.1.8**

**CDFW finds that the Plan contains an adaptive management program (Section 2820(a)(8)).**

Plan Section 7.6, *Adaptive Management Program Implementation*, describes how the monitoring data gathered during Plan implementation will be utilized to inform management actions during the life of the Plan to ensure that the biological goals and objectives identified in the conservation strategy (Chapter 5, *Conservation Strategy*) are achieved. Key to the success of the adaptive management program is a clear and effective structure for making decisions on the basis of new data from Plan monitoring and information from other sources. The PCA will be advised by four groups that play an important role in adaptive management: Wildlife Agencies, science advisors, land managers, and the public.

As a preliminary planning step to coordination, the PCA will inventory monitoring projects and programs in the Plan Area, their goals, timelines, design, protocols, etc. This will help coordinate information and will be an important first step in developing the monitoring component of the reserve unit management

plans (see Section 7.2.2.1.2, *Initiate Management and Monitoring Planning*). The PCA's responsibilities for executing the adaptive management program are listed below.

- Designing and implementing a scientifically robust effectiveness monitoring program (described above).
- Gathering monitoring and research data, including relevant information developed by others, and maintaining databases.
- Disseminating monitoring and research data generated by the Plan, including monitoring reports, conference presentations, and published papers to others.
- Assessing the effectiveness of conservation measures relative to the conservation strategy described in Chapter 5, *Conservation Strategy*.
- Identifying the need to modify existing or to adopt additional conservation measures and defining what to change and how to change it.
- Identifying the need to modify the monitoring program and defining what to change and how to change it.
- Identifying the need for and implementing experimental pilot projects.
- Identifying and prioritizing targeted studies and conducting studies that inform critical uncertainties.
- Developing and updating the monitoring and adaptive management elements of reserve unit management plans.
- Incorporating monitoring, directed studies, and other adaptive management–related activities into reserve unit management plans.
- Creating and maintaining a network of science advisors (see below) to provide advice to the PCA, as needed, on adaptive management and monitoring issues including important data gaps, monitoring and management methods, and data interpretation.
- In Year 20 of implementation, work with the Wildlife Agencies to conduct a formal and complete review of progress toward building the Reserve System.

The PCA will solicit input regarding adaptive management from the Wildlife Agencies, Water Resource Agencies, science advisors, land managers, and the public. In addition, the PCA may convene technical committees to seek focused advice on key adaptive management topics. The responsibility for which course of action to take in adaptive management rests with the PCA and its senior staff or senior contract biologists. However, the Wildlife Agencies will be consulted by the PCA and provide input with the adaptive management program, where appropriate.

Major shifts in the adaptive management program need to be reviewed and approved by the Wildlife Agencies. Major shifts include, but are not limited to, proposed actions that may be inconsistent with the Plan or detrimental to a Covered Species, introducing new and untested management techniques, discontinuing and replacing ineffective management techniques that are recommended in the conservation strategy, or applying management techniques on a much larger or smaller scale than envisioned in the Plan. Decisions made in the adaptive management program will be based primarily on which course of action is most likely to meet the conservation strategy described in Chapter 5, *Conservation Strategy*.

A primary role of the Wildlife Agencies is to provide feedback to the PCA regarding changes to Plan implementation based on the results of targeted studies and monitoring and on the recommendations

of the science advisors, academic scientist partners, and others. Where possible, Wildlife Agency staff will provide expertise in the biology and conservation of Covered Species and natural communities, management tools, monitoring program, and all other Plan implementation.

The PCA and the Wildlife Agencies will strive at all times to work in good faith with each other to reach mutual agreement on key implementation tasks such as adaptive management, monitoring, and conservation actions. The primary forum in which these discussions will occur is the Interagency Working Group described in Chapter 8, *Plan Implementation*, Section 8.2.6.4, *Interagency Working Group*. Additional meetings with the Wildlife Agencies may be needed to discuss and resolve key issues related to adaptive management and monitoring. If disagreements arise that cannot be resolved easily, the PCA will follow the “meet and confer” dispute resolution process outlined in Section 6.6.1 of the Implementing Agreement, and if necessary, the “elevation of dispute” process outlined in Section 6.6.3 of the Implementing Agreement (Plan Appendix B).

The PCA will consult science advisors who will provide regular advice on Plan implementation. The role of the science advisors is to provide the PCA with science-based expert opinion and recommendations, focused “white papers,” peer review, and feedback regarding key scientific aspects of Plan implementation such as reserve assembly, reserve management, and monitoring protocols. Science advisors will be contacted by the PCA and its partners, including the Wildlife Agencies, as needed. Science advisors will be selected by the PCA with input from the Wildlife Agencies.

The PCA will share information and resources in implementing management across reserve boundaries and on a regional scale with other land management agencies in the Plan Area (e.g., County Parks, State Parks). Input from other land management agencies in the Plan Area is an important component of successful adaptive management. Land management agencies that manage land on behalf of the PCA (i.e., as part of the Reserve System) will form a Technical Advisory Committee to coordinate management and ensure consistency across the Reserve System.

Finally, members of the public will have opportunities to learn about Plan status and provide input to the PCA on adaptive management during periodic (at least annual) public hearings and regular meetings of the public advisory committee, which will be open to the public. Members of the public may offer important contributions to a successful adaptive management program, such as providing data on Covered Species, critical reviews of monitoring data, and suggestions for improved land management. Members of the public may also participate in data collection through a volunteer program supervised by the PCA or its designee.

Data on monitoring methods, results, and analysis must be managed, stored, and made available to PCA staff, decision-makers, scientific advisors, Wildlife Agencies, other interested government agencies, including the Water Resource Agencies, and other appropriate parties. The requirements for database development, maintenance, and data reporting for monitoring are described in Chapter 8, *Plan Implementation*.

Therefore, CDFW finds that the Plan contains an adaptive management program.

**Finding 4.1.9**

**CDFW finds that the Plan includes a timeframe and process by which reserves or other conservation measures are to be implemented, including the obligations**

**of landowners and plan signatories, and the consequences of the failure to acquire lands in a timely manner (Section 2820(a)(9)).**

The Reserve System will be assembled over the term of the Permit, according to the Stay-Ahead provision. Demonstrating progress toward assembly of the Reserve System is a requirement under both the ESA and the NCCPA. The Stay-Ahead provision in this Plan described in Section 8.4.3, *Stay-Ahead Provision*, addresses this requirement.

The timing and sequence of Reserve System assembly relative to adverse effects of Covered Activities are critical to the success of the Plan. Progress toward assembling the Reserve System must stay ahead of progress toward proposed total maximum take allowed under the permit. This Stay-Ahead provision applies for each natural community type. This ensures that reserve assembly is keeping pace with loss and that the PCA is making steady progress toward completing the Reserve System. The Stay Ahead provision requires that the amount of each natural community and constituent habitat protected, restored, or created by the PCA as a proportion of the total requirement for each natural community and constituent habitat (Table 5-6 and Table 5-3) must be equal to or greater than the take impacts on that community and constituent habitat as a proportion of the total take impacts authorized for all Covered Activities (Table 5-5).

The Plan's reserve acquisition strategy (CM1 L-2, Reserve Acquisition Strategy), allows enough flexibility to enable the PCA to assemble the Reserve System within the constraints of a willing seller program while ensuring that the assembled Reserve System will meet the biological goals and objectives of the Plan. Land acquisition for the Reserve System will be undertaken in accordance with the process described in Section 8.4, *Establishing the Reserve System*, while maintaining flexibility in how the Reserve System is ultimately assembled. However, some natural community types have specific requirements associated with timing of conservation measures and habitat protection, restoration, and creation commitments which are described further below.

The PCA will stay ahead of the loss of both vernal pool complex and vernal pool constituent habitats with an advance acquisition of vernal pool complex lands as described in Section 5.3.1.5.2, *Vernal Pool Complexes and Grassland Natural Communities*. Within 2 years of adopting the implementing ordinances, the PCA will acquire vernal pool complex lands containing a minimum of 160 acres of vernal pool constituent habitats, of which at least 53 acres will be delineated as vernal pools. The advance acquisition of these vernal pool complex lands will be subject to Wildlife Agency review and approval and must meet the criteria for Reserve System lands in Section 8.4.1, *Criteria for Reserve System Lands*. In addition, no more than 1,800 acres of vernal pool complex and 80 wetted acres of vernal pool constituent habitats (15 percent of the total allotted effects) will be authorized for take under the Plan until the advance acquisition goal described above has been met.

All habitat restoration/creation construction to occur independent of effects of Covered Activities will be completed by Year 35 (i.e., for all natural communities and constituent habitats). This will allow sufficient time for monitoring and adaptive management to ensure that the relevant success criteria and occupancy standards are met. To ensure that the PCA makes steady progress toward the total restoration/creation commitment independent of effects (Table 5-4), milestones are established for natural community types and constituent habitats in Table 5-7. Milestones are established for Years 15, 25, and 35. The interim milestones for restoration/creation independent of effect (Years 15 and 25) will

be achieved when the restoration/creation activities have been completed (e.g., ground-moving activities, planting) for each acreage milestone. The PCA will monitor performance standards, report to the Wildlife Agencies, and take remedial actions in the event performance standards are not met when the interim milestones have been reached.

All habitat restoration/creation that will occur dependent on effects of Covered Activities will be completed by Year 40 (i.e., for all natural communities and constituent habitats). The later milestone for the completion of the restoration/creation commitments dependent on effect is to allow an additional 5 years of mitigation from projects that affect natural communities and constituent habitats to finance restoration/creation before the restoration/creation must be completed. Section 5.3.3.3.1, *Vernal Pool and Grassland Natural Communities*, describes special provisions for vernal pools restored/created after Year 35 but by Year 40.

Some EXR acquired through the Placer Legacy Program using non-mitigation funds will be included in the Reserve System as Enrolled Lands. These lands will count toward the Plan's protection commitments for communities and Covered Species' habitat. These lands will also "jump-start" reserve acquisition, enabling the PCA to meet the Stay-Ahead provision for the Plan (see Section 8.4.3, *Stay-Ahead Provision*, and Section 8.4.4, *Jump Start*). Table 8-1 lists the specific jump-start sites and amounts of natural communities within each site enrolled in the Reserve System. On some of the EXR, a portion has been acquired as mitigation for past non-Plan activities, and a portion has been acquired through other funds associated with the Placer Legacy Program. The portions of these Existing Protected Lands that have been acquired as mitigation for past non-Plan activities will not be incorporated into the Reserve System as Enrolled Lands, existing protected areas that are enrolled in the Plan's Reserve System, and will not contribute toward the Plan's acre commitments.

When Plan implementation begins, the PCA will be establishing its structure, collecting implementation fees, and pursuing land acquisitions. To allow time for these start-up tasks to occur, the Stay Ahead provision will not apply during the first 2 years of implementation (i.e., during the first 2 years after the last implementing ordinance takes effect). After this time, the PCA will ensure compliance with the Stay Ahead requirement by showing that, at the end of each calendar year, the amount of each natural community and constituent habitat protected, restored, or created by the PCA as a proportion of the total requirement for each natural community and constituent habitat is equal to or greater than the take impacts on that community and constituent habitat as a proportion of the total take impacts authorized for all Covered Activities (Section 8.4.3.2, *Measure of Compliance*).

To provide flexibility during implementation, the PCA may fall behind its Reserve System assembly requirement for each natural community or semi-natural community by a maximum of 10 percent for limited periods of time and still remain in compliance with the Stay Ahead provision. The allowance for up to a 10 percent deficit from the Stay Ahead requirement for limited periods of time accounts for the likely pattern of relatively infrequent land acquisition of parcels that provide mitigation for more than one Covered Activity. The PCA will most likely accumulate fee revenues from several Covered Activities, as well as other funding, and will in some cases temporarily fall behind its land acquisition commitments for purposes of meeting the Stay Ahead requirement. It will also very likely jump ahead of the Stay Ahead requirement once such acquisitions are completed.

The PCA will not fall behind in protection, restoration, or creation by more than 10 percent for each natural community or semi-natural community (not for the total acreage required for conservation) or allow any deficit to continue for a prolonged period. To ensure that there is not a prolonged deficit from the Stay Ahead requirement, the PCA will not allow a deficit of any size to last for 3 years. Specifically, the PCA will not allow a deficit of any size in any land acquisition or restoration commitment needed to meet the Stay Ahead requirement to exist at the end of three consecutive calendar years. Once the permits end (i.e., through expiration, suspension, revocation), the Permittees will be held responsible for any outstanding requirements in the permits, the Plan, and Implementing Agreement.

The PCA will monitor the status of the Stay Ahead provision throughout Plan implementation and will report the status of the Stay Ahead provision in each annual report, beginning with the third annual report. In addition, the PCA will provide quarterly updates regarding land acquisitions and compliance with the Stay Ahead provision on the PCCP webpage. The Wildlife Agencies will evaluate compliance with the Stay Ahead requirement annually. If the Wildlife Agencies determine that the requirements of Section 8.4.3, *Stay Ahead Provision*, have not been fulfilled, they will so notify the PCA in writing, and the PCA and Wildlife Agencies will meet to develop a mutually agreeable plan of action that will fulfill such requirements, in accordance with the Implementing Agreement. The mutually agreeable plan of action may include a range of potential solutions, including but not limited to: waiting for key pending land acquisition negotiations to close that will bring the Plan into compliance with the Stay Ahead provision; seeking to speed delivery of funding sources or partnerships that will enable more land acquisition to bring the Plan into compliance with the Stay Ahead provision; purchasing appropriate credits (i.e., the credits must meet all applicable conditions of the Plan; see Section 8.4.7, *Private Mitigation and Conservation Banks*) from an approved conservation/mitigation bank; initiating the land in lieu of fee requirement (see Section 8.4.3.7, *Requirement for Land Dedication*); and slowing or stopping extending take authorization to Covered Activities until land acquisition catches up with take impacts.

Therefore, CDFW finds that the Plan includes a timeframe and process by which the reserves or other conservation measures are to be implemented, including the obligations of Plan signatories, and consequences of the failure to acquire lands in a timely manner.

**Finding 4.1.10**

**CDFW finds that the Plan contains provisions that ensure adequate funding to carry out the conservation actions identified in the Plan (Section 2820(a)(10)).**

Over the 50-year permit term, the cost of Plan implementation is estimated at approximately \$1,097,761,000. This estimate includes the cost of reserve acquisition, habitat creation/restoration, land management and enhancement, habitat and species monitoring, environmental compliance, administration, and contingency funding.

Table 9-1, *Summary of Capital and Total Cumulative Operating Costs through 50-Year Permit Term* shows the anticipated cost of each category for the Plan by 5-year period and cumulatively for the 50-year permit term. The capital budget refers to the acquisition and replacement of assets while the operating budget refers to all other ongoing implementation costs such as labor. Costs are expressed throughout Chapter 9, *Costs and Funding* in constant 2019 dollars. Cost estimates summarized in Table 9-1 by 5-year periods are generalized predictions of the timing of funding needs. Annual costs will vary over the 50-year permit term due to the increase in the size and complexity of the Reserve System over

time and the schedule of restoration/creation actions. Actual costs will be assessed at least every 5 years during Plan implementation, and land cost and other inflation factors will be applied annually to the Plan development fees ensure that funding keeps pace with Plan costs (see Section 9.4.1.7, *Adjustment of Development Fees*).

To estimate the costs of the Plan, the Permittees developed a cost model identifying specific cost estimates in the major categories listed above. Plan Appendix L, *Cost Model and Assumptions*, provides the assumptions and output of the cost model. The Permittees designed the cost model to generate reasonable estimates of Plan-related costs based on models developed for other regional HCPs and NCCPs, with input from local stakeholders, a Finance Committee assembled by Placer County in 2013, and peer review commissioned by the Placer County Landowners Group in 2015. The cost model generates estimates of the expenses of the PCA over the permit term and in perpetuity to allow the Permittees to determine funding needs and develop an appropriate fee structure. During Plan implementation, the PCA will update the cost model and funding plan as cost assumptions are refined based on actual experience.

Plan funding will come from several different sources, which fall into one of three categories.

- **HCP/NCCP Development Fees.** This source includes a land conversion fee on private and public sector development. Fees are also charged for effects specific to wetlands, streams, and other particularly sensitive habitats (special habitat fees) and temporary effects (temporary impact fee). These development fees are described in Section 9.4.1, *HCP/NCCP Development Fees*.
- **Local Funding.** Other local funding will come from several sources and, depending on the source, be allocated to either mitigation or conservation actions and contributions to recovery of Covered Species. Sources include other development funding for open space, credit for dedication of existing open space, investment and interest income, and leases on rice land. Local funding sources are described in Section 9.4.2, *Local Funding*.
- **State and Federal Funding.** This source includes federal and state grant programs. Most state and federal funding can only be used for portions of the Plan that provide for conservation actions and contributions to recovery that benefit Covered Species in the Plan Area (i.e., not for mitigation). Potential state and federal funding sources are described in Section 9.4.3, *State and Federal Funding*.

Table 9-4, *Funding Plan* summarizes the expected revenues and their sources over the 50-year permit term. The funding plan fully funds all costs associated with the Plan described in Section 9.3, *Cost Estimate Methodology and Assumptions*. In addition to the costs shown in Table 9-1, the funding plan shown in Table 9-4 includes costs associated with endowment contributions (see Section 9.3.8, *Costs in Perpetuity*). Funding from development fees and other local sources shown in Table 9-4 under the Mitigation Funding heading is calculated to fund the fair share of total costs associated with compensatory mitigation. Non-fee funding from state, federal, and other local sources shown in Table 9-4 under the Other Funding heading is calculated to fund the fair share of total costs associated solely with the conservation commitment of the Plan.

Development Fees are based on the maximum allowable permanent loss of land-cover types presented in Chapter 4, *Effects of Covered Activities* and also, in part, on the conservation strategy (see Chapter 5, *Conservation Strategy*, for details that determines Plan costs). Table 9-5 (*Chart of Effects and*

*Development Fees*) provides a summary of the rationale for each of the development fees. Tables 9-6 (*Land Conversion Fee Schedule*) and 9-7 (*Special Habitat Fee Schedule*) provide the amount of each development fee described in Table 9-5. Figure 9-1 provides a schematic of how the fees would be applied across the landscape, focusing on application of the special habitat fees within the Stream System. See Figure 2-4 in Chapter 2, *Covered Activities*, for a map of Plan Area components referred to in Table 9-6.

Permittees will collect all fees paid by private applicants to their jurisdictions. Permittees will transfer these fees to the PCA on a regular basis, at least twice annually. The transfer schedule and process will be determined by the PCA early in Plan implementation. All fees paid by the Permittees for their own Covered Activities will be similarly collected and transferred to the PCA according to the same process and schedule developed by the PCA for fees from private applicants. The Plan includes two mechanisms for adjusting fee levels over course of Plan implementation: automatic adjustments (Section 9.4.1.7.1) and periodic assessments (Section 9.4.1.7.2).

Costs associated with the PCA's management, monitoring, and administrative responsibilities that will continue in perpetuity beyond the permit term are described in Section 9.3.8, *Costs in Perpetuity* and Section 9.4.6, *Funding for Post-Permit Management and Monitoring*. Annual costs beyond the permit term are estimated to be about 16 percent of average annual costs in the final years of the permit term—about \$69 per reserve acre (Table 9-3, *Western Placer County HCP/NCCP Implementation Budget: Post Permit*). Appendix L, *Cost Model and Assumptions*, describes the assumptions used to estimate these costs.

Additional revenue may be secured from sources not included in the funding plan shown in Table 9-4, such as fees on Special Participating Entities, fees for temporary effects, or other mitigation fee programs that are not a part of the regulatory framework of this Plan (e.g., Placer County Tree Ordinance mitigation fees or National Pollutant Discharge Elimination System mitigation fees). Despite conservative assumptions and these additional revenue sources, the potential exists that revenue may fall short of Plan costs. Section 9.4.5, *Funding Adequacy* further discusses the adequacy of the Plan's funding in the event of funding shortfalls or non-compliance with the Stay-Ahead provision (Section 8.4.3).

Therefore, CDFW finds that the Plan contains provisions that ensure adequate funding to carry out the conservation actions identified in the Plan.

## **4.2 Findings Regarding the IA**

### **Finding 4.2.1**

**CDFW finds that the IA contains provisions defining species coverage, including conditions of coverage (2820(b)(1)).**

The IA identifies 14 species for take coverage under the NCCP Permit. Take of the Covered Species is authorized contingent on the Permittees' adoption of the Plan, including but not limited to: approval of the Plan, adoption of implementation ordinances, and signing of the IA. All of the Covered Species are proposed for take pursuant to the NCCPA.

Section 8 of the IA specifies that all Permittees and third-party participants must comply with the terms and conditions of species coverage detailed in the Plan to avoid, minimize, and mitigate impacts on the Covered Species and natural communities. Therefore, CDFW finds that the IA contains provisions defining species coverage, including conditions of coverage.

**Finding 4.2.2**

**CDFW finds that the IA contains provisions for establishing the long-term protection of any habitat reserve or other measures that provide equivalent conservation of Covered Species (2820(b)(2)).**

Section 7 of the IA contains provisions for establishment and protection of the Reserve System. The PCA will establish the Reserve System on behalf of the Permittees as set forth in Sections 8.4 and 5.3.1 of the Plan. The Reserve System will be created by permanently protecting land containing certain terrestrial and aquatic land cover types and managing and monitoring them in perpetuity. Lands will be added to the Reserve System at a pace that is roughly proportional to the rate at which Covered Activities are implemented and Authorized Take occurs, as provided in IA Section 7.1.3 and further described in Chapter 8.4.3 of the Plan.

All reserve acquisitions shall adhere to the Plan principles and priorities for Reserve System design, and for species population and habitat preservation and enhancement, as set forth in Conservation Measure 1 of the Plan's conservation strategy (Section 5.3.1) and the criteria for establishing the Reserve System during Plan implementation (Section 8.4). This includes specific governing criteria for instances where the PCA may accept land (fee title or conservation easement) dedications in lieu of a fee payment if the land contributes to Plan goals and objectives and is approved by the PCA and Wildlife Agencies (Section 8.4.13), acceptance of land dedications as a gift or charitable donation (Section 8.4.12), and acceptance of credits sold in private mitigation and conservation banks if they meet the terms of the Plan (Section 8.4.7).

The total acquisition of all Reserve System lands is quantified in Table 5-2. Specific natural community and constituent habitat protection commitments to achieve protection-related objectives are provided in Table 5-3. Natural community restoration commitments are described in Conservation Measure 3, *Restore and Create Natural Communities and Covered Species' Habitat*, and summarized in Table 5-4. Table 5-6 provides the acres of modeled habitat that will be protected and restored for each Covered.

Species. The protection and restoration commitments in Table 5-6 are based on the community-level and constituent habitat protection commitments (Table 5-3) and community-level and constituent habitat restoration commitments (Table 5-4). Achieving all of the community-level and constituent habitat protection and restoration commitments will therefore meet all of the species-level protection and restoration commitments identified in Table 5-6. The table also shows the percent of total available modeled habitat in the Plan Area that will be protected and restored in the Plan Area, if the proposed maximum allowable effects occur. In total, implementation of the Plan will result in 47,300 acres of natural and seminatural communities that include:

- Protection of 41,080 acres of natural/semi-natural communities and Covered Species habitat.
- Up to 6,220 acres of habitat restoration/creation/enhancement dependent on effects associated with Covered Activities.

- 15,957 acres of EXR lands, of which, 2,047 acres will be enrolled into the Reserve System as “jump start” lands.

Reserve System lands will be permanently protected. For purposes of this NCCP Permit, the Plan, and the IA, Reserve System lands will be regarded as permanently protected if the biological functions and values on the lands that contribute to meeting the goals and objectives of the Plan are protected by a permanent, recorded conservation easement that meets the requirements of Section 8.4.9 of the Plan.

The PCA will negotiate the specific terms and conditions of conservation easements used to permanently protect Reserve System lands with each landowner on a case-by-case basis, based on site conditions, land uses, and Covered Species and habitat needs. However, the PCA will use either the “Conservation Easement” template (IA Exhibit B) or, for certain agricultural lands, as further described in Chapter 8.4.9.3.2 of the Plan, the “Agricultural Conservation Easement” (IA Exhibit C) as a model for Reserve System lands. Alternatively, for agricultural lands added to the Reserve System as described in Plan Section 8.4.9.3.2, where the use of other forms of agricultural conservation easements are required by state or federal agencies, such as conservation easement forms approved by the Department of Conservation for use with its grant programs, the PCA may use such other forms of conservation easements with the concurrence of the Wildlife Agencies. The PCA and the Wildlife Agencies must review and approve any variations from the conservation easement templates, including, but not limited to, the use of other state- or federally- approved forms of agricultural conservation easements.

Therefore, CDFW finds that the IA contains provisions for establishing the long-term protection of any habitat reserve or other measures that provide equivalent conservation of Covered Species.

**Finding 4.2.3**

**CDFW finds that the IA contains specific terms and conditions, which, if violated, would result in the suspension or revocation of the NCCP Permit, in whole or in part. CDFW further finds that the IA includes a provision requiring notification to the Plan participant of a specified period of time to cure any default prior to suspension or revocation of the NCCP Permit in whole or in part (2820(b)(3)).**

As described in Section 14.3 of the IA, CDFW may suspend or revoke the NCCP Permit for a material violation of the NCCP Permit or material breach of the IA by the Permittees. If the Permittees are out of compliance with the Federal Permit issued for the Plan, that constitutes a material breach of the IA (Section 14.1).

CDFW may revoke or terminate the NCCP Permit for a material violation of the State Permit or material breach of this Agreement by the Permittees if the CDFW determines in writing that (1) such violation or breach cannot be effectively redressed by other remedies or enforcement action, or (2) revocation or termination is required to avoid jeopardizing the continued existence of a Covered Species and to fulfill a legal obligation of the CDFW under the NCCPA.

CDFW agrees that it will not revoke or terminate the NCCP Permit without first (1) attempting to resolve any disagreements regarding the implementation or interpretation of the Plan or the IA in accordance with Section 16.2, (2) requesting that the Permittees take appropriate remedial action, and (3) providing the Permittees with notice in writing of the facts or conduct which warrant the revocation or

termination and a reasonable opportunity (not less than forty-five (45) days) to demonstrate or achieve compliance with the NCCPA, the NCCP Permit, and the IA.

However, in the event that CDFW has determined that the Permittees have failed to meet the rough proportionality standard provided in IA Section 7.1.3, and if the Permittees have failed to cure the default or to enter into an agreement to do so within forty-five (45) days of the written notice of such determination, CDFW will revoke the NCCP Permit in whole or in part in accordance with California Fish and Game Code section 2820 (IA Section 14.4).

Therefore, CDFW finds that the IA contains specific terms and conditions, which, if violated, would result in the suspension or revocation of the permit, in whole or in part. CDFW also finds that the IA includes a provision requiring notification to the Plan Permittee of a specified period of time to cure any default prior to suspension or revocation of the NCCP Permit in whole or in part.

**Finding 4.2.3A**      **CDFW finds that the IA specifies the action CDFW shall take if the participant fails to provide adequate funding (2820(b)(3)(A)).**

In the event there is inadequate funding to implement the Plan, the Wildlife Agencies will assess the impact of the funding deficiency on the scope and validity of the permits. Unless the Permittees exercise the authority to withdraw, as provided in Section 15.5, or the Wildlife Agencies revoke the Permits, in whole or in part, as provided in Section 14, the Parties agree that they will meet and confer to develop a strategy to address the funding shortfall and to undertake all practicable efforts to maintain the level of conservation and authorized take coverage afforded by the Permits until the funding deficiency can be remedied (IA Section 11.3).

Therefore, the IA specifies the action CDFW shall take if the participant fails to provide adequate funding.

**Finding 4.2.3B**      **CDFW finds that the IA specifies the action CDFW shall take if the participant fails to maintain rough proportionality between impacts on habitat or Covered Species and conservation measures (2820(b)(3)(B)).**

If the Wildlife Agencies determine that the requirements of Plan Section 8.4.3 or IA Section 7.1.3 have not been fulfilled, the PCA will either regain rough proportionality within forty-five (45) days or will enter into an agreement with the Wildlife Agencies within forty-five (45) days, which will set a course of action to expeditiously regain rough proportionality. The agreement may include any of a variety of commitments or adjustments to the Plan designed to regain rough proportionality, including but not limited to, a plan to acquire, restore, or enhance lands of the appropriate land cover type expeditiously. However, if the PCA and the Wildlife Agencies meet to develop a plan of action, as described above, the agreement will be based on that plan of action. The PCA will provide written notice of the agreement to the other Permittees. Each Permittee will implement all actions set forth in the agreement that apply to the Permittee.

If the PCA does not regain rough proportionality within forty-five (45) days or enter into an agreement with the Wildlife Agencies within forty-five (45) days setting a course of action to regain rough proportionality, the Wildlife Agencies may suspend or revoke the permits, in whole or in part. All Parties

acknowledge that failure to fulfill the requirements of the Plan and the state/federal permits would constitute a violation of the permits and the Wildlife Agencies will take appropriate responsive actions to address any such violation in accordance with the ESA, NCCPA, and their implementing regulations, which could include suspension or revocation of the permits, in whole or in part. The partial suspension or revocation may include removal of one or more Covered Species or reduction in the scope of the authorized take. Before suspending or revoking the NCCP permit due to a failure to maintain rough proportionality, CDFW will meet with the Permittees to determine whether mutually agreeable modifications to the Plan would obviate a suspension or revocation.

Therefore, CDFW finds that the IA specifies the action CDFW shall take if the participant fails to maintain rough proportionality between impacts on habitat or Covered Species and conservation measures.

**Finding 4.2.3C**

**CDFW finds that the IA specifies the action CDFW shall take if the Plan participant adopts, amends, or approves any plan or project without the concurrence of the Wildlife Agencies that is inconsistent with the objectives and requirements of the approved Plan (2820(b)(3)(C).).**

As described in IA Section 9.4 and Plan Section 8.9.3, the Wildlife Agencies will monitor implementation of the Plan to ensure overall compliance with the permits, the Plan, and the IA. To ensure that the Wildlife Agencies are adequately informed about the Permittees' use and extension of authorized take coverage, the Permittees will provide copies of any application and supporting information required in Chapter 6 for any Covered Activity upon the request of any Wildlife Agency. Furthermore, the Wildlife Agencies may conduct inspections and monitoring of the site of any Covered Activity, and may inspect any data or records required by the IA, the Plan, or the permits, in accordance with applicable law and regulations. The PCA will also provide the Wildlife Agencies reasonable access to conduct inspections of the Reserve System.

If CDFW objects to any action or inaction by any Permittee on the basis that the action or inaction is inconsistent with the NCCP Permit, the Plan, and/or the IA, it will provide a written notice explaining the basis of the objection to the Permittee, the PCA, and any other third parties whose involvement is necessary to resolve the dispute. The Party that is the subject of the written notice will respond to the notice in writing within thirty (30) days of receiving it, stating what actions it proposes to take to resolve the objection or, alternatively, explaining why the objection is unfounded. If the response resolves the objection to the satisfaction of CDFW, CDFW will so notify all involved Parties, and the responding Party will ensure implementation of the actions, if any, proposed in the response. If the response does not resolve the objection to the satisfaction of CDFW, CDFW will so notify all involved Parties and request that all involved Parties meet and confer to attempt to resolve the dispute. The meeting will occur within thirty (30) days after the involved Parties receive the notice and meeting request, or at such later time that CDFW may agree to. If the parties do not resolve a dispute after completing the dispute resolution procedure in Section 16.2.1, any one of the parties may elevate the dispute to a meeting of the chief executives of the involved parties. The meeting will occur within forty-five (45) days of a request by any party following completion of the dispute resolution procedure.

Therefore, CDFW finds that the IA specifies the action CDFW shall take if the Plan participant adopts, amends, or approves any plan or project without the concurrence of the Wildlife Agencies that is inconsistent with the objectives and requirements of the approved Plan.

**Finding 4.2.3D**

**CDFW finds that the IA specifies the action CDFW shall take if the level of take exceeds that authorized by the NCCP Permit (2820(b)(3)(D)).**

As described in IA Section 9.4 and Plan Section 8.9.3, the Wildlife Agencies will monitor compliance with the permits primarily by reviewing and commenting on annual reports and monitoring reports (see Section 8.11, *Reporting*, and Section 8.12, *Schedule and Milestones*). The Wildlife Agencies may also monitor the Permittees as they extend take for Covered Activities, including both projects implemented by the Permittees and third-party projects that receive take authorization from the County or the City. Effects that occur beyond the take limits identified in the Plan may result in suspension or revocation of the NCCPA Permit and a Plan amendment would be required to increase the allowable take limits (see Chapter 8, Plan Implementation).

Section 14.3 of the IA allows CDFW to suspend the NCCP Permit in whole, or in part, in the event of any material violation of the State Permit or material breach of the IA by the Permittees, provided, however, that it will not suspend the NCCP Permit without first (1) attempting to resolve any disagreements regarding the implementation or interpretation of the Plan or the IA in accordance with Section 16.2, (2) requesting the Permittees to take appropriate remedial actions when such remedial actions are reasonable and available, and (3) providing the Permittees with written notice of the facts or conduct which may warrant the suspension and an adequate and reasonable opportunity for the Permittees to demonstrate why suspension is not warranted or to take steps necessary to cure the violation or breach.

Therefore, CDFW finds that the IA specifies the action CDFW shall take if the level of take exceeds that authorized by the NCCP Permit.

**Finding 4.2.4**

**CDFW finds that the IA contains provisions specifying procedures for amendment of the Plan and the IA (2820(b)(4)).**

The IA may be amended only with the written agreement of all of the Parties; provided, however, that any amendment or portion thereof pertaining to third party participants, implementing ordinances under Section 9.7, or any other provision of the IA pertaining to the land use or other regulatory decisions of the City or County will not require the consent of the PCWA, SPRTA, or PCA (IA Section 13.3).

The PCA may propose minor modifications to the Plan, as defined in IA Section 13.2 (Plan Section 10.5.2), by providing written notice to all of the other Parties. Such notice will include a statement of the reason for the proposed modification and an analysis of its environmental effects, if any, including any effects on Covered Species. The Wildlife Agencies will each approve or disapprove proposed modifications within sixty (60) days of receipt of such notice or will explain in writing to the PCA why such approval or disapproval cannot be provided within sixty (60) days and will specify when such approval or disapproval will be provided. Proposed modifications will become effective upon the Wildlife Agencies' written approval. The Wildlife Agencies will not approve minor modifications to the Plan if they determine that such modifications would result in adverse effects on Covered Species or

natural communities under the Plan that are significantly different from those analyzed in the Plan or would result in additional take of Covered Species not analyzed in the Plan. If any Wildlife Agency disapproves a proposed modification, it may be proposed as an amendment of the Plan and/or that Wildlife Agency's permit as provided in IA Section 13.4 and Plan Section 10.5.3.

The Permittees may substantially revise the Plan or apply to amend the Wildlife Agency permits by obtaining the applicable Wildlife Agency's approval of an amendment to one or more of the permits as provided in IA Section 13.4 and in accordance with all applicable laws and regulations, including but not limited to ESA, NEPA, NCCPA and CEQA. The Party proposing the amendment will provide written notice to all the other Parties of any proposed permit amendment. Such notice will include a copy of any required application for the proposed amendment, a statement of the reason for the amendment and an analysis of its environmental effects, if any, including any effects on Covered Species. The applicable Wildlife Agencies will review and approve or disapprove the proposed permit amendment in an expeditious manner, commensurate with the level of environmental review appropriate to the magnitude of the proposed amendment. However, each Wildlife Agency will use its best efforts to approve or disapprove any proposed permit amendment within one hundred eighty (180) days after receipt of an application to amend the permit, except where a longer period of time is required by law. Revisions of the Plan that would require an amendment of one or more of the Wildlife Agency permits include, but are not limited to, the examples described in Plan Section 10.5.3.

Unless and until CDFW adopts regulations that set forth specific requirements for the amendment of NCCPA take authorizations, for purposes of proposed amendments to the NCCP Permit, CDFW will accept an application for a NCCP Permit amendment that meets the requirements of IA Section 13.4 and ESA requirements for an application for an amendment of an incidental take permit; provided, however, that CDFW's approval or disapproval of the proposed NCCP Permit amendment will be based on the requirements of the NCCPA and CEQA and not on the requirements of the ESA.

Therefore, CDFW finds that the IA contains provisions specifying procedures for amendment of the Plan and the IA.

**Finding 4.2.5**

**CDFW finds that the IA contains provisions ensuring implementation of the monitoring program and adaptive management program (2820(b)(5)).**

The PCA, on behalf of the Permittees, will implement the Plan's Monitoring and Adaptive Management Program (Plan Chapter 7) as described in IA Section 7.4 and Plan Sections 8.3.3 and 8.8. The PCA will implement the Monitoring and Adaptive Management Program in order to gauge the effectiveness of the Plan and respond to changed circumstances (see Plan Section 10.3). The PCA may delegate monitoring responsibilities to other Parties or qualified third parties, including but not limited to public agencies, private conservation organizations, scientists, and contractors. However, the PCA will remain solely responsible for all monitoring and reporting requirements in perpetuity and for the timeliness and quality of the monitoring and reporting plan.

Decisions made in the adaptive management program will be based primarily on which course of action is most likely to meet the biological goals and objectives of the Plan (Chapter 5) within budget constraints and while avoiding or minimizing conflicts with other biological goals and objectives. The PCA will collect and consider feedback from the Wildlife Agencies in determining management and

monitoring practices, and the Wildlife Agencies' approval will be required for any major changes in management plans (Section 8.2.6.6). The adaptive management program will be based on the results of compliance monitoring (Section 7.2.1.1), effectiveness monitoring (Section 7.2.1.2), and targeted studies (Section 7.2.1.3) and will be informed by science advisors and local land managers (Section 8.2.7). And as described in findings 4.2.6 and 4.2.7, the PCA will report on and manage information regarding Plan implementation, including implementation of the monitoring and adaptive management program, via an annual report submitted to the Wildlife Agencies.

Therefore, CDFW finds that the IA contains provisions ensuring implementation of the monitoring program and adaptive management program.

**Finding 4.2.6**                    **CDFW finds that the IA contains provisions for oversight of Plan implementation for purposes of assessing mitigation performance, funding, and habitat protection measures (2820(b)(6)).**

The PCA, on behalf of the Permittees, will report on and manage information regarding Plan implementation as provided in IA Section 12 and further described in Plan Sections 8.10 and 8.11. As part of this requirement, the PCA will prepare an annual report on implementation of the Plan (the "Annual Report"), as further described in Plan Section 8.11. The Annual Report will summarize actions taken to implement the Plan during each calendar year and will be submitted to the Wildlife Agencies by March 1 of the following calendar year, beginning the calendar year after the first full calendar year of implementation.

As further described in Plan Section 8.10.1, the PCA will be responsible for tracking compliance with the Wildlife Agency permits. To track compliance, the PCA will maintain baseline data for the purpose of tracking the amount of take that has been authorized, the amount of authorized take that has occurred, and the PCA's progress toward achieving the Plan's goals and objectives for Covered Species. Within one (1) year after the adoption of the first implementation ordinance as provided in IA Section 9.7.3, the PCA will develop and maintain a comprehensive Plan data repository for information regarding Wildlife Agency and Water Resource Agency permit compliance and all other information regarding Plan implementation for which reporting is required, as further described in Plan Section 8.10.2.

The Wildlife Agencies will provide technical assistance and review, collaboration, and consultation to the Permittees regarding implementation of the Plan (IA Section 6.2). The Wildlife Agencies will have oversight over the implementation of the adaptive management program, as described in Chapter 7 of the Plan (IA Section 7.4.1). Additionally, Wildlife Agency concurrence is required for certain components of the conservation strategy such as approval of new Reserve System lands (IA Section 7.1.2), revisions to the Conservation Easement templates (IA Section 7.1.1.1), oversight on maintaining rough proportionality (IA Section 7.1.3), and strategies to address funding shortfalls (IA Section 11.3).

Additionally, the Wildlife Agencies may also monitor the Permittees as they extend take for Covered Activities, including both projects implemented by the Permittees and third-party projects that receive take authorization from the County or the City. The purpose of Wildlife Agency monitoring take authorization for Covered Activities will be to ensure compliance with the state and federal permits, not to determine whether take authorization may be extended to any individual Covered Activity. However, consultation with, or review and approval of, the Wildlife Agencies is required for specific Conditions on

Covered Activities before take authorization can be provided. Those Conditions on Covered Activities requiring explicit Wildlife Agency approval are listed in Section 8.9.3 of the Plan and include:

- Updates to best management practices used to minimize Stream System effects, as described in Section 6.3.3.2, *Stream System Condition 2, Stream System Mitigation: Restoration*.
- Updates to conditions to minimize effects on specific Covered Species, as described in Section 6.3.5, *Conditions to Minimize Effects on Specific Covered Species*.
- The frequency and timing of surveys for projects implemented over multiple years, and any changes to modeled habitat maps used to determine the location of surveys, as described in Section 6.3.5.1, *Surveys for Select Covered Wildlife Species*.
- Waivers of Swainson's hawk avoidance measures, as described in Section 6.3.5.6.2, *Applicable Measures*.
- Survey protocols for California black rails, as described in Section 6.3.5.7.1, *Survey Requirements*.
- Burrowing owl exclusion plans, as described in Section 6.3.5.8.2, *Applicable Measures*.
- Tricolored blackbird survey protocols, as described in Section 6.3.5.9.1, *Survey Requirements*.
- Exceptions to no-activity buffer distances for tricolored blackbirds, as described in Section 6.3.5.9.2, *Applicable Measures*.
- Survey requirements for Conservancy fairy shrimp, as described in Section 6.3.5.14.1, *Survey Requirements*.
- Conservancy fairy shrimp avoidance measures, as described in Section 6.3.5.14.2, *Applicable Measures*.

As described in IA Section 11, the Permittees will ensure that all required mitigation, conservation, monitoring, and reporting measures are adequately funded throughout the term of the Plan and associated permits, and that certain monitoring, reporting and adaptive management measures are adequately funded in perpetuity. The Permittees are responsible to seek feasible increases in revenues as necessary to keep pace with rising costs, as described in Plan Chapter 9. Each Permittee will promptly notify the Wildlife Agencies of any material change in the Permittee's financial ability to fulfill its obligations under the Plan, the permits, or the IA. In addition, the PCA will include in its Annual Report reasonably available financial information to demonstrate the Permittees' collective ability to fulfill their obligations under the Plan/IA in light of a material change in a Permittee's finances, if any.

As described in Plan Section 9.4.5, the Plan includes conservative assumptions and safeguards intended to ensure adequate funding for implementation, as well as a range of actions that the Permittees can take in the event of a temporary funding shortfall. In the event there is inadequate funding to implement the Plan despite these assumptions, safeguards, and actions, the Wildlife Agencies will assess the impact of the funding deficiency on the scope and validity of the permits. Unless the Permittees exercise the authority to withdraw, as provided in IA Section 15.5, or the Wildlife Agencies revoke the Permits, in whole or in part, as provided in IA Section 14, the Parties agree that they will meet and confer to develop a strategy to address the funding shortfall and to undertake all practicable efforts to maintain the level of conservation and authorized take coverage afforded by the permits until the funding deficiency can be remedied.

Section 11.4 of the IA and Plan Section 9.4.6 describe the endowment funding requirements necessary to cover the costs of managing and monitoring the Reserve System following the conclusion of the Plan's term and expiration of the NCCP Permit.

Therefore, CDFW finds that the IA contains provisions for oversight of Plan implementation for purposes of assessing mitigation performance, funding, and habitat protection measures.

**Finding 4.2.7**                    **CDFW finds that the IA contains provisions for periodic reporting to the Wildlife Agencies and the public for purposes of information and evaluation of Plan progress (2820(b)(7).).**

As described in Finding 4.2.6 above, the PCA, on behalf of the Permittees, will report on and manage information regarding Plan implementation as provided in IA Section 12 and further described in Plan Sections 8.10 and 8.11. As part of this requirement, the PCA will prepare an annual report on implementation of the Plan (the “Annual Report”). The Annual Report will summarize actions taken to implement the Plan during each calendar year and will be submitted to the Wildlife Agencies by March 1 of the following calendar year, beginning the calendar year after the first full calendar year of Plan implementation. Annual reports will be submitted to the Permittees, the Wildlife Agencies, and other interested parties, and will be available to the public and posted on the Plan web site. The PCA will also distribute these reports to science advisors periodically for their review (Plan Section 8.2.7).

As further described in Finding 4.4 below, at least once annually, the PCA will convene a meeting to report on the progress of Plan implementation directly to the public (see Section 8.2.8.1, *Annual Public Meeting*). The public meeting will generally coincide with the issuance of the annual report (IA Section 8.11). The meeting(s) will provide a forum for the public to pose questions and provide comments directly to the PCA on the overall progress of Plan implementation and may coincide with one of the regular PCA Board meetings.

Within one (1) year after the adoption of the first implementation ordinance as provided in IA Section 9.7.3, the PCA will develop and maintain a comprehensive Plan data repository for information regarding permit compliance and all other information regarding Plan implementation for which reporting is required, as further described in Sections 8.3.7 and 8.10.2 of the Plan. The PCA will make the Plan data repository accessible to the Permittees and Wildlife Agencies. The PCA will oversee and control access to the Plan data repository as necessary to ensure the integrity of the repository and data therein. In some instances, the PCA may grant access to the data repository to third parties, including third party participants under the Plan. The PCA will comply with the information sharing requirements of the Implementing Agreement. If the PCA allows additional access to the project databases, such access will require strict controls and monitoring to ensure that the integrity of the databases are maintained (e.g., use of passwords to limit access of a particular entity to selected database functions, sampling data entry forms to ensure that entered information is complete, compatible, and accurate).

Therefore, CDFW finds that the IA contains provisions for periodic reporting to the Wildlife Agencies and the public for purposes of information sharing and evaluation of Plan progress.

**Finding 4.2.8**                    **CDFW finds that the IA contains mechanisms to ensure adequate funding to carry out the conservation actions identified in the Plan (2820(b)(8).).**

The PCA, County, City, PCWA, and SPRTA will ensure that all required mitigation, conservation, monitoring, and reporting measures are adequately funded throughout the term of the Wildlife Agency permits, the Plan, and the IA (Section 11), and that certain monitoring, reporting and adaptive

management measures are adequately funded in perpetuity via an endowment (IA Sections 11.2 and 11.4).

As described in IA Section 11, the Permittees intend to obtain sufficient funds for Plan implementation through a comprehensive strategy further described in Plan Chapter 9 that includes: development fees, dedications, special taxes, and ongoing assessments; federal and state grants; private grants; and ongoing conservation efforts by local and state agencies that have a demonstrated record of acquiring and managing lands for recreational and conservation purposes in the Plan Area. The Permittees may use or establish other local funding measures, including, but not limited to, utility surcharges, special taxes or assessments, or bonds, to the extent allowed by law. The Permittees are responsible to seek feasible increases in revenues as necessary to keep pace with rising costs, as described in Chapter 9. Each Permittee will promptly notify the Wildlife Agencies of any material change in the Permittee's financial ability to fulfill its obligations under the Wildlife Agency permits, the Plan, and the IA. In addition, the PCA will include in its Annual Report reasonably available financial information to demonstrate the Permittees' collective ability to fulfill their obligations under the Wildlife Agency permits, the Plan, and/or the IA in light of a material change in a Permittee's finances, if any.

In the event there is inadequate funding to implement the Plan, the Wildlife Agencies will assess the impact of the funding deficiency on the scope and validity of the Wildlife Agency permits. Unless the Permittees exercise the authority to withdraw, as provided in IA Section 15.5, or the Wildlife Agencies revoke the permits, in whole or in part, as provided in Section 14, the Parties agree that they will meet and confer to develop a strategy to address the funding shortfall and to undertake all practicable efforts to maintain the level of conservation and authorized take coverage afforded by the permits until the funding deficiency can be remedied.

Section 11.4 of the IA and Plan Section 9.4.6 describe the endowment funding requirements necessary to cover the costs of managing and monitoring the Reserve System following the conclusion of the Plan's term and expiration of the NCCP Permit. The PCA, as the public agency formed to implement the Plan on behalf of the Permittees, shall ensure that the endowment is managed, invested, and disbursed in furtherance of the long-term stewardship of the Reserve System by:

- Managing endowment funds efficiently;
- Achieving a reasonable long-term rate of return on investment of endowment funds similar to those of other prudent investors for endowment funds;
- Achieving a long-term rate of return that at a minimum is equal to the capitalization rate of 3.25 percent annually assumed in the Plan, after deducting inflation and fees, and as adjusted by the periodic assessment and adjustment of fees;
- Fully funding the endowment by the end of the term of the NCCP Permit based on a schedule that allocates a fixed percentage of each land conversion fee payment to the endowment as adjusted by the periodic assessment and adjustment of fees;
- Managing and investing endowment funds in good faith and with the care an ordinarily prudent person in a like position would exercise under similar circumstances, consistent with the Uniform Prudent Management of Institutional Funds Act (Part 7 (commencing with Section 18501) of Division 9 of the Probate Code);
- Utilizing generally accepted accounting practices as promulgated by either the Financial Accounting Standards Board or any successor entity for nonprofit organizations or the

Governmental Accounting Standards Board or any successor entity for public agencies, to the extent those practices do not conflict with any other requirements of law; and

- Disbursing endowment funds on a timely basis and only for the long-term stewardship of the Reserve System.

Therefore, CDFW finds that the IA contains mechanisms to ensure adequate funding to carry out the conservation actions identified in the Plan.

**Finding 4.2.9**

**CDFW finds that the IA contains provisions to ensure that implementation of mitigation and conservation measures on the Plan basis is roughly proportional in time and extent to the impact on habitat or Covered Species authorized under the Plan. CDFW further finds that these provisions identify the conservation measures, including assembly of reserves where appropriate and implementation of monitoring and management activities, that will be maintained or carried out in rough proportion to the impact on habitat or Covered Species and the measurements that will be used to determine if this is occurring (2820(b)(9)).**

As further described in Section 8.4.3 of the Plan, the PCA will ensure that lands are proportionally added to the Reserve System, and habitat is restored or created, at or faster than the pace at which Covered Activities impact Covered Species and natural communities. This will fulfill the NCCPA's requirement to ensure that implementation of mitigation and conservation measures on a plan basis is roughly proportional in time and extent to the impact on habitat or covered species. This requirement is referred to in the Plan as the "stay-ahead" requirement (IA Section 7.1.3).

To measure compliance with the Stay Ahead provision, land-cover types will be aggregated by natural and semi-natural communities. The amount of each natural community conserved, restored, or created as a proportion of the total requirement by natural community (Table 5-6 and Table 5-7) must be equal to or greater than the impact on the natural community as a proportion of the total impact expected by all Covered Activities (Table 5-3). For example, if 25 percent of the total expected impacts on vernal pool complex land-cover types have occurred, then at least 25 percent of the overall protection and restoration commitment for all vernal pool complex land-cover types must also occur. This method of aggregating land-cover types only applies to the measurement of the Stay Ahead provision (i.e., requirements for acquisition by each land-cover type still apply for all other purposes). This aggregation method provides flexibility to the PCA to acquire, restore, or create the most sensitive and difficult land-cover types first within each natural community, even if impacts on these landcover types have not yet occurred.

When Plan implementation begins, the PCA will be establishing its structure, collecting implementation fees, and pursuing land acquisitions. To allow time for these start-up tasks to occur, the Stay Ahead provision will not apply during the first 2 years of implementation (i.e., during the first 2 years after the last implementing ordinance takes effect). After this time, the PCA will ensure compliance with the Stay Ahead requirement by showing that, at the end of each calendar year, the amount of each natural community and constituent habitat protected, restored, or created by the PCA as a proportion of the total requirement for each natural community and constituent habitat is equal to or greater than the

take impacts on that community and constituent habitat as a proportion of the total take impacts authorized for all Covered Activities (Section 8.4.3.2, *Measure of Compliance*).

To provide flexibility during implementation, the PCA may fall behind its Reserve System assembly requirement for each natural community or semi-natural community by a maximum of 10 percent for limited periods of time and still remain in compliance with the Stay Ahead provision. The allowance for up to a 10 percent deficit from the Stay Ahead requirement for limited periods of time accounts for the likely pattern of relatively infrequent land acquisition of parcels that provide mitigation for more than one Covered Activity. The PCA will most likely accumulate fee revenues from several Covered Activities, as well as other funding, and will in some cases temporarily fall behind its land acquisition commitments for purposes of meeting the Stay Ahead requirement. It will also very likely jump ahead of the Stay Ahead requirement once such acquisitions are completed. To ensure that there is not a prolonged deficit from the Stay Ahead requirement, the PCA will not allow a deficit of any size to last for 3 years. Specifically, the PCA will not allow a deficit of any size in any land acquisition or restoration commitment needed to meet the Stay Ahead requirement to exist at the end of three consecutive calendar years.

If the Wildlife Agencies determine that the requirements of Section 8.4.3 of the Plan or IA Section 7.1.3 have not been fulfilled, the PCA will either regain rough proportionality within forty-five (45) days or will enter into an agreement with the Wildlife Agencies within forty-five (45) days, which will set a course of action to expeditiously regain rough proportionality. The agreement may include any of a variety of commitments or adjustments to the Plan designed to regain rough proportionality, including but not limited to, a plan to acquire, restore, or enhance lands of the appropriate land cover type expeditiously. However, if the PCA and the Wildlife Agencies meet to develop a plan of action, as described above, the agreement will be based on that plan of action. The PCA will provide written notice of the agreement to the other Permittees. Each Permittee will implement all actions set forth in the agreement that apply to the Permittee. If the PCA does not regain rough proportionality within forty-five (45) days or enter into an agreement with the Wildlife Agencies within forty-five (45) days setting a course of action to regain rough proportionality, the Wildlife Agencies may suspend or revoke the permits, in whole or in part.

As further described in Section 8.4.3.7 of the Plan, if at any time the Plan fails to comply with the stay-ahead requirement, or if the PCA concludes there is a reasonable likelihood that the Plan will fall out of compliance within one (1) year, the PCA may recommend that the Permittees provide land or implement conservation actions described in Chapter 5, and that the County and City encourage third party participants to provide land or implement such conservation actions, in lieu of all or a portion of Development Fees, in accordance with Sections 8.4.3.6 and 8.4.3.7 of the Plan.

Therefore, CDFW finds that the IA contains provisions to ensure that implementation of mitigation and conservation measures on the Plan basis is roughly proportional in time and extent to the impact on habitat or Covered Species authorized under the Plan. These provisions identify the conservation measures, including assembly of reserves where appropriate and implementation of monitoring and management activities, that will be maintained or carried out in rough proportion to the impact on habitat or Covered Species and the measurements that will be used to determine if this is occurring.

#### **4.3 Findings Regarding Provisions for Permit Suspension or Revocation Findings Regarding Provisions for Permit Suspension or Revocation**

##### **Finding 4.3**

**CDFW finds that the IA contains provisions for suspension or revocation of the NCCP Permit, in whole or in part, if the Plan participant does not maintain proportionality between take and conservation measures specified in the IA and does not either cure the default with 45 days or enter into an Agreement with CDFW within 45 days to expeditiously cure the default (2820(c)).**

See Finding 4.2.3B.

#### **4.4 Findings Regarding Public Review of Monitoring Program Data and Reports Findings Regarding Public Review of Monitoring Program Data and Reports**

##### **Finding 4.4**

**CDFW finds that any data and reports associated with the monitoring program shall be available for public review and that the entity managing the CDFW finds that any data and reports associated with the monitoring program shall be available for public review and that the entity managing the Plan shall also conduct public workshops annually to provide information and evaluate progress toward attaining the conservation objectives of the Plan (2820(d)).**

The requirements for database development, maintenance, and data reporting for the Plan's monitoring program are contained in Chapter 8, *Plan Implementation*.

As described in Section 8.11, *Reporting*, the PCA will prepare annual reports over the term of the Plan that document permit compliance (see Section 8.10, *Compliance Tracking and Data Management*), conservation measures, management measures, restoration/creation measures, and monitoring results. The annual reports will summarize the previous calendar year's implementation activities and be completed by March 1 following the reporting year. No annual report will be required for the first partial calendar year. Annual reports will be submitted to the Permittees, the Wildlife Agencies, and other interested parties, and will be available to the public and posted on the Plan web site.

At least once annually, the PCA will convene a meeting to report on the progress of Plan implementation directly to the public (see Section 8.2.8.1, *Annual Public Meeting*). The public meeting will generally coincide with the issuance of the annual report (see Section 8.11). All public meetings of the PCA will adhere to the open meeting laws in California, including the Ralph M. Brown Act (Government Code Sections 54953(a), 54953(c), 54960.1(d)). The PCA will summarize habitat losses and gains, acquisition of land into the Reserve System, habitat restoration and creation, and management and monitoring accomplishments for the previous year. The meeting(s) will provide an informal forum for the public to pose questions and provide comments directly to the PCA on the overall progress of Plan implementation. The public meeting(s) may coincide with one of the regular PCA Board meetings. The PCA may also conduct periodic formal reviews of Plan progress in a public forum.

Additionally, The PCA will establish and appoint a public advisory committee (see Section 8.2.8.2, *Public Advisory Committee*) to solicit input from stakeholders with interest in Plan implementation. The committee will report to the PCA. Committee meetings will be open to the public and committee

members will be drawn from a variety of interest groups, including conservation advocacy organizations, landowner groups, and development interests. Staff from the Permittees and the Wildlife Agencies will very likely participate in advisory committee meetings to help assure broad coordination among those parties interested in and responsible for implementing the Plan.

Therefore, CDFW finds that any data and reports associated with the monitoring program shall be available for public review and the entity managing the Plan (PCA) shall also conduct public workshops annually to provide information and evaluate progress toward attaining the conservation objectives of the Plan.

#### **4.5 Findings Regarding Review of Subsequent Projects Findings Regarding Review of Subsequent Projects**

##### **Finding 4.5**

**CDFW finds that the Plan participant that is the lead agency or responsible agency shall incorporate in the review of any subsequent project in the Plan Area the feasible mitigation measures and alternatives related to the biological impacts on Covered Species and their habitat developed in the program EIR (2820(e)).**

The EIS/EIR for the Plan incorporates the Plan's conservation strategy and conditions on covered activities in providing for the avoidance, minimization, and mitigation of the Covered Species and natural communities associated with the effects of Covered Activities in the Plan Area (Final EIS/EIR Appendix A, *Western Placer County Habitat Conservation Plan/Natural Community Conservation Plan*). As such, any Covered Activities carried out by the Permittees, third parties within their jurisdiction, or approved Participating Special Entities must be consistent with the Plan and EIS/EIR.

This NCCP Permit provide the Permittees with take authorization, if the projects are Covered Activities and comply with the terms of the Plan. If a Permittee undertakes a Covered Activity, the Permittee must document consistency with the Plan and provide a copy of this documentation to the PCA before the Permittee's take authorization may be exercised. The documentation allows the PCA to track the amount of take coverage granted, to record the fee amount, and schedule of when fees will be paid.

Each Permittee will develop a documentation procedure, including modifications to its CEQA implementation guidelines or a special-purpose standardized template, within the first 18 months of permit issuance. It is expected that the documentation will be similar to the model Plan participation package required of applicants for private projects, as described in Section 6.2.2, *Application Process for Private Projects*, subheading *HCP/NCCP Participation Package*. Permittee project documentation may depart from that model so long as the Permittee is able to make the required determination of the project's consistency with the Plan.

When Permittees initiate projects that are subject to CEQA, Permittees are encouraged to consider and incorporate as appropriate the terms of the Plan; however, the HCP/NCCP participation package is not required until the Permittee is ready to seek take coverage for implementation of Covered Activities. To facilitate CEQA coordination, the Permittee may begin the Plan documentation process at the earliest stage of project planning.

Private projects proposed for take coverage will be reviewed exclusively by one of the two local jurisdictions who are Permittees, either the City of Lincoln or Placer County. Local jurisdictions will have authorization to grant take coverage for Covered Activities proposed by private parties under their jurisdiction that comply with the terms and conditions of the Plan. The process of initiating participation in the Plan will be integrated into the local jurisdictions' normal CEQA procedures for discretionary permits or, for ministerial projects, the normal land development review process. For Covered Activities that are also subject to CEQA review, applications for take authorization will generally be undertaken concurrently with CEQA review. To facilitate a concurrent approach, the local jurisdiction will request that project applicants submit the HCP/NCCP participation package at the same time as the application for the first discretionary action needed for the Covered Activity.

Upon receipt of a participation package, the local jurisdiction will review it for completeness in accordance with the checklist. Although a local jurisdiction may request technical assistance from PCA staff, determination that an HCP/NCCP participation package is complete rests with the local jurisdiction. However, any project applicant request to contribute land in lieu of fees, pay with mitigation/conservation bank credits, or call for other special project conditions must be reviewed and approved by the PCA. Once the HCP/NCCP participation package is complete, the local jurisdiction will identify project specific conditions that will apply and calculate the required fees, mitigation/conservation bank credit payments, and/or in-lieu dedication requirements based on the procedures described in Chapter 9, *Costs and Funding*, and consistent with the local ordinance implementing the Plan.

Permittee Covered Activities that may not be subject to CEQA include many operations and maintenance (O&M) activities or other actions that may be categorically or statutorily exempt from CEQA. Many projects that are exempt from CEQA will still be covered under this Plan (e.g., building permits) and still require compliance with the applicable conditions of this Plan, as described in Chapter 6, *Program Participation and Conditions on Covered Activities*.

The Permittee documentation process will need to address ongoing programs and CEQA-exempt activities. For example, public works O&M activities will be covered if the Permittee prepares a general description of work to be performed in the upcoming year. Preparation of such a description may be paired with the budget process that will fund the activities. The work description will allow the Permittee to determine if planned ground disturbance or potential work in the Stream System would trigger specific conditions, including the payment of Plan fees. That information and an assessment of work actually done would be provided to the PCA. It is foreseen that such program documentation may involve an annual review of Covered Activities (i.e., O&M) that fall into this category.

Therefore, CDFW finds that the Plan participant that is the lead agency or responsible agency shall incorporate in the review of any subsequent project in the Plan Area the feasible mitigation measures and alternatives related to the biological impacts on Covered Species and their habitat developed in the program EIR.

#### **4.6 Findings to Provide Assurances to Plan Participants**

**Finding 4.6**

**CDFW finds that the level of assurances provided to Plan participants is commensurate with long-term conservation assurances and associated implementation measures pursuant to the approved Plan (2820(f)).**

Section 10.2 of the IA provides assurances that CDFW will not require any Permittee or third party participant to provide, without its consent, additional land, water or financial compensation, or additional restrictions on the use of land, water, or other natural resources, in connection with any Covered Activity for the purpose of conserving Covered Species, even in the event of unforeseen circumstances, provided the Permittees are properly implementing the IA, the Plan, and the terms and conditions of the NCCP Permit. The provisions of the IA and the Plan that address changed circumstances (see Plan Section 10.3) are not unforeseen circumstances and therefore are not subject to these assurances. A portion of the Plan implementation budget has been allocated for actions in response to changed circumstances and, as a result, the changed circumstances provisions of the Plan are not intended to require modifications to the Plan that would require additional funding or to impose significant additional burdens on Permittees or third party participants.

Therefore, and for the reasons more fully described in Findings 4.6.1A through 4.6.1H and Finding 4.6.2, CDFW finds that the level of assurances provided to the Permittees is commensurate with long-term conservation assurances and associated implementation measures pursuant to the approved Plan.

**Finding 4.6.1A**

**CDFW finds that the level of assurances and time limits for assurances specified in the IA were based on the level of knowledge of the status of the Covered Species and natural communities (2820(f)(1)(A)).**

The *Species Accounts* (Plan Appendix D) summarize ecological information, distribution, status, population trends, habitat associations, and threats to each Covered Species in the Plan Area. The accounts represent the best available scientific data for each species that is relevant to the Plan. The Plan's habitat model for the Covered Species is summarized in Table 3-9 and is described in detail in the species accounts for each Covered Species. The resulting modeled habitat is depicted along with known species occurrences in the species map series, *Species Modeled Habitat* and *Occurrence Maps*, found in Appendix D. The biological summaries in the species accounts form the basis for the effects analysis (Chapter 4, *Effects of Covered Activities*) and conservation strategy (Chapter 5, *Conservation Strategy*) in the Plan.

Natural/semi-natural communities and the derived land-cover types and constituent habitats (see Tables 3-6, 3-7, 3-8, 3-10, 3-11, 3-12, and 3-13) are the basic unit of evaluation for modeling habitat, analyzing potential effects, and developing conservation strategies for terrestrial Covered Species. Most Covered Species are associated with one or more land-cover types (Table 3-9). These land-cover associations, plus other habitat features (e.g., elevation), were used to develop habitat distribution models for all but one of the terrestrial Covered Species. Habitat for Conservancy fairy shrimp was not modeled because its known distribution is highly restricted in the Plan Area to a single vernal pool and because the type of vernal pool this species typically occurs in (e.g., generally large and turbid pools) is not found in the Plan Area.

The habitat models for Central Valley steelhead and Central Valley fall-/late fall-run Chinook salmon uses the spawning, migration, and rearing habitat defined for Central Valley steelhead in the Recovery

Plan for Central Valley steelhead (National Marine Fisheries Service 2014) for both species. Life history requirements are similar enough between these two species to generalize the application of modeled habitat for Central Valley steelhead to Central Valley fall-/late fall-run Chinook salmon at the level of scale and precision of the habitat model used in the Plan.

The habitat models described in the species accounts were designed to estimate the extent and location of habitat characteristics of each Covered Species and to be repeatable and scientifically defensible, while remaining as simple as possible. The models are spatially explicit, GIS-based “expert opinion models” based on identification of land-cover types that provide important habitat for the Covered Species. Land-cover types were identified as suitable habitat based on the known or presumed habitat requirements and use patterns of each Covered Species. When supported by appropriate data, the models also incorporate physical parameters such as elevation limitations and distances from wetland or open water habitats that reflect an estimated extent of habitat use (e.g., the extent of upland habitat used by California red-legged frog, defined as being within a certain distance from aquatic habitat).

Determinations of suitable land-cover types and additional physical parameters were based on available occurrence records from the CNDDDB, peer-reviewed scientific literature, survey reports, and environmental documents (see Plan Section 3.3.2.3.1, *Data Sources*, and 3.3.2.3.2, *Data Precision and Limitations*). Local survey data were used whenever possible to evaluate model parameters. When data were inconclusive or contradictory, conservative values were assumed in estimating suitable habitat.

Over the proposed 50-year NCCP Permit term for the Plan, the PCA will acquire approximately 47,300 acres for natural and semi-natural community protection and restoration irrespective of loss (see Table 5-2 and Table 5-3) in the Reserve System. Within that land, the PCA will restore at least 4,375 acres of natural communities independent of effects, and 6,220 acres of natural communities if all allowable loss associated with the Covered Activities proposed under the Plan occurs (Table 5-4). These protected and restored lands will augment the approximately 16,000 acres of EXR. Cumulatively, 38 percent of the present natural and semi-natural landscape in Plan Area A (Figure 1-2) would ultimately be subject to conservation management (Table 5-2) by the conclusion of the 50-year NCCP Permit term.

Table 5-6 provides the acres of modeled habitat that will be protected and restored for each Covered Species. The protection and restoration commitments in Table 5-6 are based on the community-level and constituent habitat protection commitments (Table 5-3) and community-level and constituent habitat restoration commitments (Table 5-4). Achieving all of the community-level and constituent habitat protection and restoration commitments will therefore fulfill the species-level protection and restoration commitments identified in the species-level biological goals and objectives and conservation measures, summarized in Table 5-6. The table also shows the percent of total available modeled habitat in the Plan Area that will be protected and restored in the Plan Area, if the proposed maximum allowable effects occur.

Therefore, CDFW finds that the level of and time limits for assurances specified in the IA were based on the level of knowledge of the status of the Covered Species and natural communities.

**Finding 4.6.1B**

**CDFW finds that the level of assurances and time limits specified in the IA were based on the adequacy of analysis of the impact of take on Covered Species (2820(f)(1)(B)).**

As described in Finding 4.6.1D, the Plan identifies potential Covered Species habitat in two ways: by digitally mapping land-cover types within the Plan Area utilizing GIS (Section 3.3.1.2, *Mapping*) and by estimating the amount of a specific habitats associated with the land-cover types (Section 3.3.1.3, *Estimating Constituent Habitats*). Because certain habitat elements important to Covered Species occur at too fine a scale to map programmatically, their extent is estimated (in acres) as a percentage of a land-cover type. Habitats whose extent is estimated are called Constituent Habitats (see Section 3.3.1.1, *Definitions*, Tables 3-7 and 3-8).

Implementation of the Covered Activities will result in take of some Covered Species, as described in Chapter 4, *Effects of Covered Activities*. All of the impact estimates are summed to derive total proposed allowable maximum effects under the Plan and proposed for coverage under the NCCP Permit. These estimates of maximum effects are expressed as loss of natural communities, constituent habitats, and modeled habitat for Covered Species (see Tables 4-1, 4-3, 4-11, and 4-12). These maximum estimated effects represent the proposed limit, or cap, on total effects allowable under the Plan and the NCCP Permit. Effects that occur beyond the maximum estimated effects would not be covered by the Plan for that parameter (i.e., natural community type, wetland type, or modeled habitat for Covered Species). A Plan amendment would be required to increase the allowable take limits (see Chapter 8, *Plan Implementation*).

The in-stream effects associated with Covered Activities are mainly measured by the linear extent of riverine habitat affected. Tables 4-7A and 4-7B give a summary of stream length affected by classes of Covered Activities and shows the portion that is attributed to salmonid habitat. Table 4-7A gives the estimate of permanent effects; Table 4-7B gives the estimate of temporary effects.

The majority of take over the NCCP Permit term is expected to occur as a result of land conversion from continued urban, suburban, and rural residential development within the areas designated for potential future growth. Two methods were used to estimate the effects of land conversion from development, one specific to the Valley described in Section 4.3.1.1, *Land Conversion in the Valley*, and one specific to the Foothills described in Section 4.3.1.2, *Land Conversion in the Foothills*. Note that other effects associated with urban growth, including temporary and indirect effects, are summarized separately (Section 4.3.2, *Methods for Assessing Temporary Direct Effects*; Section 4.3.3, *Methods to Estimate Indirect Effects in the Valley*; Section 4.3.4, *Methods to Assess Indirect Effects from the Increase in Rural Densities in the Foothills*; Section 4.3.5, *Methods for Effects of Covered Activities on Streams*; and Section 4.3.6, *Methods for Effects of Covered Activities on Watersheds*).

The effects analysis for land conversion is described in detail in Plan Appendix G, *Take Assessment Methodology*. This methodology is based on the growth scenario described in Appendix M, *Growth Scenario Memo*. For the NCCP Permit, the land conversion estimates reflect the maximum extent of take proposed over the course of the 50-year permit term.

As Covered Activities are proposed and implemented, the effects of each Covered Activity will be quantified more precisely based on field surveys and compiled with respect to the maximum extent of take proposed over the course of the NCCP Permit term. The data will be used to track effects and ensure that no take limits defined by the Plan, IA, and/or permits are exceeded. It is important to note that the estimates of effects of each Covered Activity in Chapter 4 are provided only as a basis for the impact limits proposed in Tables 4-1, 4-3, 4-11, and 4-12. These estimates are not project-specific

estimates or estimates of the effects of categories of Covered Activities. The PCA expects that some Covered Activities will have less impact than estimated in Chapter 4, while others will have more impact than estimated. These variations in actual impact are consistent with the Plan as long as the total effects of all Covered Activities remain under the proposed total allowable effects in Tables 4-1, 4-3, 4-11, and 4-12.

Furthermore, the extent of potential take is limited by the Conditions on Covered Activities (Chapter 6, *Program Participation and Conditions on Covered Activities*), which are intended to minimize or avoid adverse effects associated with the Covered Activities.

Therefore, CDFW finds that the level of assurances and time limits specified in the IA were based on the adequacy of analysis of the impact of take on Covered Species.

**Finding 4.6.1C**      **CDFW finds that the level of assurances and time limits specified in the IA were based on the use of the best available science to make assessments about the impacts of take, the reliability of mitigation strategies, and the appropriateness of monitoring techniques (2820(f)(1)(C)).**

As described previously in Findings 4.1.4C, 4.1.6, 4.1.7, 4.2.5, and 4.6.1A and 1B, the Plan's effects analysis, conservation strategy, and monitoring and adaptive management programs are based on the best scientific data available at the time of Plan preparation and incorporate processes for periodic review and update based on new information that becomes available during Plan implementation.

The primary sources of data used to develop the effects analysis and conservation strategy were the Covered Species accounts and distribution models (Appendix D, *Species Accounts*), and the inventory of existing conditions summarized in Chapter 3, *Physical and Biological Setting*. An independent group of scientists retained by Placer County (Section 1.4.5, *Science Advisors*) identified the communities and constituent habitats described in Chapter 3 and made recommendations for their conservation and management in Plan development. Those recommendations were incorporated into the biological goals, objectives, and conservation measures in Chapter 5, *Conservation Strategy* (see Section 5.2, *Conservation Strategy Framework*).

Adaptive management is a critical element of the Plan because it addresses many of the uncertainties of the Plan and provides for continual adjustment and improvement toward meeting Plan goals and objectives. Key to the success of the adaptive management program is a clear and effective structure for making decisions on the basis of data generated by Plan monitoring in addition to new information from other available sources. The PCA will be advised by four groups that play an important role in the adaptive management process: the Wildlife Agencies, science advisors, land managers, and the public. The roles and responsibilities of these entities in providing input during Plan implementation and the adaptive management process are further described in Plan Section 8.2, *Implementation Structure*, and Section 8.8, *Monitoring and Adaptive Management*.

Therefore, CDFW finds that level of assurances and time limits specified in the IA were based on the use of the best available science to make assessments about the impacts of take, the reliability of mitigation strategies, and the appropriateness of monitoring techniques.

**Finding 4.6.1D**

**CDFW finds that the level of assurances and time limits specified in the IA were based on the appropriateness of the size and duration of the Plan with respect to quality and amount of data (2820(f)(1)(D)).**

The Plan identifies potential habitat in two ways: by digitally mapping land-cover types in a geographic information system (GIS) (Section 3.3.1.2, *Mapping*) and by estimating the amount of a habitat associated with a land-cover type (Section 3.3.1.3, *Estimating Constituent Habitats*). Because certain habitat elements important to Covered Species occur at too fine a scale to map programmatically, their extent is estimated (in acres) as a percentage of a land-cover type. Habitats whose extent is estimated are called Constituent Habitats (see Section 3.3.1.1, *Definitions*, Tables 3-7 and 3-8).

One of the primary sources of data for this Plan is a detailed map of land-cover types within Plan Area A maintained in GIS. The land-cover type classification used is based on the California Wildlife Habitat Relationships (CWHR) habitat classification system (California Department of Fish and Game 2011). During the initial vegetation mapping by Jones & Stokes Associates (2004), the CWHR system was slightly modified to reflect conditions in Placer County and was named the Placer County Wildlife Habitat Relationship (PCWHR) system. The PCWHR is similar to the CWHR, except that some landcover types were expanded for mapping purposes. For example, the CWHR “urban” land-cover type was divided into eight subtypes to distinguish among areas that are surrounded by native ecosystems and areas that are entirely developed (Jones & Stokes Associates 2004).

Initial land-cover mapping began when Jones & Stokes Associates mapped PCWHR habitat types occurring in western Placer County in 2002. All patches of vegetation and land cover 0.1 acre or larger were mapped using 2002 aerial photographs. Jones and Stokes botanists drew lines delineating land cover based on visible vegetation signatures—differences in color tones and textures—on the underlying photographs. The drawings were electronically scanned and imported into GIS. Jones & Stokes Associates botanists and wildlife biologists then conducted field surveys in 38 watersheds in Plan Area A from February 27 through May 4, 2003 to field verify the GIS based vegetation and land cover classification.

Land-cover mapping in the Valley was updated in 2006 and 2012 in conjunction with refined vernal pool mapping using May 2005 and April 2011 aerial photography (see Section 3.3.1.2.4, *Mapping Vernal Pool Complexes*). Because the new imagery allowed a broader and more detailed evaluation of low-density vernal pool presence, the new mapping replaced the original Jones & Stokes Associates 2002 map for most of the Valley, including the area from Lincoln to the west.

The Plan maps streams in the Plan Area three ways: (1) the Stream System (see Section 3.2.7, *Stream System*, for a description and definition of the Stream System); (2) an aerial mapping of riverine/riparian complex land-cover types, as described in Sections 3.3.1.2, *Mapping*, and 3.4.5.1, *Land-cover Types*; and (3) a linear mapping of riverine/riparian complex.

The mapped streams were derived from 2007 Placer County data and based on a manual digitization of USGS 7.5-minute quadrangle maps. The original USGS map differentiation of intermittent or perennial streams does not always match current conditions, as explained in Section 3.2.8, *Hydrologic Modifications*, and was not used. The natural drainages of western Placer County often intersect the system of canals, and natural drainages are used as part of the water-delivery system with irrigation

water inlets and turnouts from and back into the canal system (see Table 3-3 for the extent of streams, canals, and reservoirs in the Plan Area). In the flatter portions of the Valley, streams have been channelized and often intersect drainage ditches, irrigation supply, and irrigation return water channels.

Wetlands, riverine, and riparian habitat features occur in association with certain land-cover types; therefore, they are termed “constituent habitats.” Their presence in Plan Area A is estimated by applying a density factor to land-cover mapping. The density factors were derived by comparing mapped land-cover type to a collection of in-field wetland delineation results on 11,242 acres of land in the Valley. The crosswalking of delineated wetlands and riverine or riparian features to land cover was done by the consultant team and used to derive the proportion of constituent habitats by land-cover type (Tables 3-10, 3-11, and 3-12).

Documented occurrences of Covered Species were used to inform development of the Covered Species habitat models, the effects analysis (Chapter 4), and guide the development of the conservation strategy (Chapter 5). Species-habitat relationships (based on land-cover types) were used to supplement occurrence data for Covered Species and predict where within Plan Area A the Covered Species occur or could occur. The known species occurrences are shown in the *Species Map* series (Appendix D, *Species Accounts*).

The scope of the Plan was informed by abundant data regarding local land use, ecological processes, natural communities, and the status of the Covered Species populations, management, and trends in the Plan Area. Therefore, CDFW finds that the level of assurances and time limits specified in the IA were based on the appropriateness of the size and duration of the Plan with respect to quality and amount of data.

**Finding 4.6.1E**      **CDFW finds that the level of assurances and time limits specified in the IA were based on the sufficiency of mechanisms for long-term funding of all components of the Plan and contingencies (2820(f)(1)(E)).**

The cumulative cost of implementing the Plan during the 50-year NCCP Permit term is estimated at \$1,097,761,000. This includes the cost of land acquisition, reserve management and enhancement, community creation/restoration/enhancement, Plan administration, monitoring and reporting, environmental compliance, research, contingency funds, and costs in perpetuity.

Table 9-1, *Summary of Capital and Total Cumulative Operating Costs through 50-Year Permit Term* shows the anticipated cost of each category for the Plan by 5-year period and cumulatively for the 50-year permit term. Costs are expressed throughout Chapter 9, *Costs and Funding*, in constant 2017 dollars. Cost estimates summarized in Table 9-1 by 5-year periods are generalized predictions of the timing of funding needs. Annual costs will vary over the 50-year permit term due to the increase in the size and complexity of the Reserve System over time and the schedule of restoration/creation actions. Actual costs will be assessed at least every 5 years during Plan implementation, and land cost and other inflation factors will be applied annually to the HCP/NCCP development fees ensure that funding keeps pace with Plan costs (see Section 9.4.1.7, *Adjustment of Development Fees*).

To estimate the costs of the Plan, the Permittees developed a cost model identifying specific cost estimates in the major categories listed above. Plan Appendix L, *Cost Model and Assumptions*, provides

the assumptions and output of the cost model. The Permittees designed the cost model to generate reasonable estimates of Plan-related costs based on models developed for other regional HCPs and NCCPs, with input from local stakeholders, a Finance Committee assembled by Placer County in 2013, and peer review commissioned by the Placer County Landowners Group in 2015. The cost model generates estimates of the expenses of the PCA over the permit term and in perpetuity to allow the Permittees to determine funding needs and develop an appropriate fee structure. During Plan implementation, the PCA will update the cost model and funding plan as cost assumptions are refined based on actual experience.

Plan funding will come from several different sources, which fall into one of three categories.

- HCP/NCCP Development Fees. This source includes a land conversion fee on private and public sector development. Fees are also charged for effects specific to wetlands, streams, and other particularly sensitive habitats (special habitat fees) and temporary effects (temporary impact fee). These development fees are described in Section 9.4.1, *HCP/NCCP Development Fees*.
- Local Funding. Other local funding will come from several sources and, depending on the source, be allocated to either mitigation or conservation actions and contributions to recovery of Covered Species. Sources include other development funding for open space, credit for dedication of existing open space, investment and interest income, and leases on rice land. Local funding sources are described in Section 9.4.2, *Local Funding*.
- State and Federal Funding. This source includes federal and state grant programs. Most state and federal funding can only be used for portions of the Plan that provide for conservation actions and contributions to recovery that benefit Covered Species in the Plan Area (i.e., not for mitigation). Potential state and federal funding sources are described in Section 9.4.3, *State and Federal Funding*.

Table 9-4, *Funding Plan* summarizes the expected revenues and their sources over the 50-year permit term. The funding plan fully funds all costs associated with the Plan described in Section 9.3, *Cost Estimate Methodology and Assumptions*. In addition to the costs shown in Table 9-1, the funding plan shown in Table 9-4 includes costs associated with endowment contributions (see Section 9.3.8, *Costs in Perpetuity*). Funding from development fees and other local sources shown in Table 9-4 under the Mitigation Funding heading is calculated to fund the fair share of total costs associated with compensatory mitigation. Non-fee funding from state, federal, and other local sources shown in Table 9-4 under the Other Funding heading is calculated to fund the fair share of total costs associated solely with the conservation commitment of the Plan.

Development Fees are based on the maximum allowable permanent loss of land-cover types presented in Chapter 4, *Effects of Covered Activities* and also, in part, on the conservation strategy (see Chapter 5, *Conservation Strategy*, for details that determines Plan costs). Table 9-5 (*Chart of Effects and Development Fees*) provides a summary of the rationale for each of the development fees. Tables 9-6 (*Land Conversion Fee Schedule*) and 9-7 (*Special Habitat Fee Schedule*) provide the amount of each development fee described in Table 9-5. Figure 9-1 provides a schematic of how the fees would be applied across the landscape, focusing on application of the special habitat fees within the Stream System. See Figure 2-4 in Chapter 2, *Covered Activities*, for a map of Plan Area components referred to in Table 9-6.

Permittees will collect all fees paid by private applicants to their jurisdictions. Permittees will transfer these fees to the PCA on a regular basis, at least twice annually. The transfer schedule and process will be determined by the PCA early in Plan implementation. All fees paid by the Permittees for their own Covered Activities will be similarly collected and transferred to the PCA according to the same process and schedule developed by the PCA for fees from private applicants. The Plan includes two mechanisms for adjusting fee levels over course of Plan implementation: automatic adjustments (Section 9.4.1.7.1) and periodic assessments (Section 9.4.1.7.2).

Costs associated with the PCA's management, monitoring, and administrative responsibilities that will continue in perpetuity beyond the permit term are described in Section 9.3.8, *Costs in Perpetuity* and Section 9.4.6, *Funding for Post-Permit Management and Monitoring*. Annual costs beyond the permit term are estimated to be about 16 percent of average annual costs in the final years of the permit term—about \$78 per reserve acre (Table 9-3, *Western Placer County HCP/NCCP Implementation Budget: Post Permit*). Appendix L, *Cost Model and Assumptions*, describes the assumptions used to estimate these costs.

Additional revenue may be secured from sources not included in the funding plan shown in Table 9-4, such as fees on Special Participating Entities, fees for temporary effects, or other mitigation fee programs that are not a part of the regulatory framework of this Plan (e.g., Placer County Tree Ordinance mitigation fees or National Pollutant Discharge Elimination System mitigation fees). Despite conservative assumptions and these additional revenue sources, the potential exists that revenue may fall short of Plan costs. Section 9.4.5, *Funding Adequacy* further discusses the adequacy of the Plan's funding in the event of funding shortfalls or non-compliance with the Stay-Ahead provision (Section 8.4.3).

After the NCCP Permit term, the Permittees will continue to protect, manage, and maintain the Reserve System in perpetuity. This includes adaptive management and monitoring at a level sufficient to determine whether management is effective. Other obligations, however, end after the NCCP Permit term. For example, the Permittees will no longer be obligated to annually report the status of the Plan to the Wildlife Agencies. Preservation, enhancement, restoration, and creation obligations will also be completed prior to the end of the NCCP Permit term and will not continue post-permit. Responsive measures and contingencies will also no longer need to be funded after the NCCP Permit term because the regulatory assurances associated with these obligations end with the NCCP Permit. Responsibility for funding long-term management and monitoring rests solely with the PCA.

Overall, annual costs beyond the NCCP Permit term are estimated to be about 16 percent of average annual costs in the final years of the NCCP Permit term—about \$78 per reserve acre (Table 9-3). Many reserve management activities continue beyond the NCCP Permit term, but restoration, creation, and enhancement actions will be discontinued, and management planning will be reduced. The post NCCP Permit budget assumes that water costs for giant garter snake habitat are not reduced post-permit and the budget also includes a contingency factor to ensure that grazing continues as a vegetation management strategy. The costs for directed research, scientific review, monitoring plans, and natural communities monitoring will be discontinued, and ongoing species biological monitoring costs will be at about 25 percent of the level in place at the end of the NCCP Permit term (although monitoring of restored/created wetlands will continue at the same level as during the NCCP Permit term). Staffing and other administration costs will be at about 50 percent of the level in effect during the last 5 years of the

NCCP Permit term. Appendix L, *Cost Model and Assumptions*, describes the assumptions used to estimate these costs.

The PCA shall ensure that the endowment is managed, invested, and disbursed in furtherance of the long-term stewardship of the Reserve System by:

- Managing endowment funds efficiently
- Achieving a reasonable long-term rate of return on investment of endowment funds similar to those of other prudent investors for endowment funds
- Achieving a long-term rate of return that at a minimum is equal to the capitalization rate of 3.25 percent annually assumed in the Plan, after deducting inflation and fees, as adjusted by the periodic assessment and adjustment of fees (Section 9.4.1.7.2, *Periodic Assessment and Adjustment of Fees*)
- Fully funding the endowment by the end of the NCCP Permit term based on a schedule that allocates a fixed percentage of each land conversion fee payment to the endowment as adjusted by the periodic assessment and adjustment of fees (Section 9.4.1.7.2, *Periodic Assessment and Adjustment of Fees*)
- Managing and investing endowment funds in good faith and with the care an ordinarily prudent person in a like position would exercise under similar circumstances, consistent with the Uniform Prudent Management of Institutional Funds Act (Part 7 [commencing with Section 18501] of Division 9 of the Probate Code)
- Utilizing generally accepted accounting practices as promulgated by either the Financial Accounting Standards Board or any successor entity for nonprofit organizations or the Governmental Accounting Standards Board or any successor entity for public agencies, to the extent those practices do not conflict with any other requirements of law
- Disbursing endowment funds on a timely basis and only for the long-term stewardship of the Reserve System

Funding provided by development fee contributions and interest earnings on endowment fund balances during the NCCP Permit term will grow the endowment sufficient to fully fund post-permit costs in perpetuity. Any shortfalls in the endowment during the NCCP Permit term will be identified by the 5-year funding assessments conducted by the PCA. If the endowment is not growing fast enough to reach its target size, then the land conversion fee will be increased to make up the shortfall. With these built-in safeguards in the endowment, post-permit funding is expected to be adequate to fully offset necessary post-permit costs of management and monitoring in perpetuity.

Therefore, CDFW finds that the level of and time limits for assurances specified in the IA were based on the sufficiency of mechanisms for long-term funding of all components of the Plan and contingencies.

**Finding 4.6.1F**      **CDFW finds that the level of assurances and time limits specified in the IA were based on the degree of coordination and accessibility of centralized data for analysis and evaluation of the effectiveness of the Plan (2820(f)(1)(F)).**

The PCA will develop and maintain a comprehensive data repository to track NCCP Permit compliance and all other aspects of Plan implementation for which reporting is required (Section 8.10, *Compliance Tracking and Data Management*). The initial data repository to track Plan compliance will be operating

within 12 months after NCCP Permit issuance and the local implementing ordinances taking effect. Additional components of the data repository (e.g., monitoring) can be added later as these components of the Plan are developed. Compliance tracking data will be linked to supporting information documenting Plan compliance including but not limited to: participation packages submitted for Covered Activities; preconstruction survey reports; documentation related to the screening, selection, and acquisition of reserve lands; and designs for Covered Activities that demonstrate compliance with relevant conditions in Chapter 6, *Program Participation and Conditions on Covered Activities*.

The data repository will be designed to be “user friendly,” such that a trained staff person (as opposed to a technician or programmer) can enter data. Additionally, the data repository will allow for future expansion and integration with external databases (e.g., linkage to agency or other GIS map libraries). The primary types of information for which the data repository will be developed and maintained include: Covered Species occurrences, including pre-existing and newly identified occurrences; status of Covered Activities, including implementation and impacts on Covered Species and natural communities; status of Plan preservation/enhancement/ creation and restoration measures; Plan funding and expenditures; data from monitoring and targeted studies; adopted changes to the Plan, including administrative changes, minor amendments, or major amendments (all defined in Chapter 10, *Assurances*); and all reports and documents generated by the PCA or the Permittees related to the Plan.

Additionally, The PCA will prepare annual reports over the term of the Plan that document permit compliance (see Section 8.10, *Compliance Tracking and Data Management*), conservation measures, management measures, restoration/creation measures, and monitoring results. The annual reports will summarize the previous calendar year’s implementation activities and be completed by March 1 following the reporting year. Annual reports will be submitted to the Permittees, the Wildlife Agencies, and other interested parties, and will be available to the public and posted on the Plan web site.

The PCA may choose to develop a web-linked database to facilitate controlled transfer of information by others into and out of the database. The PCA will comply with the information sharing requirements of the IA. If the PCA allows additional access to the project databases, such access will require strict controls and monitoring to ensure that the integrity of the databases are maintained (e.g., use of passwords to limit access of a particular entity to selected database functions, sampling data entry forms to ensure that entered information is complete, compatible, and accurate).

Therefore, CDFW finds that the level of assurances and time limits specified in the IA were based on the degree of coordination and accessibility of centralized data for analysis and evaluation of the effectiveness of the Plan.

**Finding 4.6.1G**

**CDFW finds that the level of assurances and time limits specified in the IA were based on the degree to which a thorough range of foreseeable circumstances are considered and provided for under the adaptive management program (2820(f)(1)(G).).**

As described in Chapter 10, *Assurances*, changes in the environment during the Plan term are anticipated and will be addressed adaptively as part of the Plan’s conservation strategy and adaptive management program. The following foreseeable changed circumstances were recognized in the Plan:

listing of Covered Species, new listing of non-Covered Species, destruction of restoration projects due to fire, expansion of new or non-native species or disease, flooding of vernal pools and riparian restoration or enhancement sites, destruction of restoration projects through drought, and climate change. The Plan includes allocated implementation budget funds to address responsive actions for these changed circumstances.

Changed circumstances are focused on changes to the environment that could affect Covered Species or natural communities protected under the Plan. Section 10.3, *Changed and Unforeseen Circumstances Addressed by This Plan*, describes each of the changed and unforeseen circumstances associated with implementing the Plan's conservation strategy. These changed and unforeseen circumstances, along with associated responsive actions, are summarized in Table 10-1, which lists each changed circumstance and associated responsive actions, which are funded by the Plan. The table also lists the thresholds for unforeseen circumstances beyond which responses are not funded by the Plan.

Therefore, CDFW finds that the level of assurances and time limits for specified in the IA were based on the degree to which a thorough range of foreseeable circumstances are considered and provided for under the adaptive management program.

**Finding 4.6.1H**      **CDFW finds that the level of assurances and time limits specified in the IA were based on the size and duration of the Plan (2820(f)(1)(H)).**

The NCCP Permit term of 50 years was requested by the Permittees because it allows for the full and successful implementation of (1) the Covered Activities (Chapter 2, *Covered Activities*); (2) the conservation strategy (Chapter 5, *Conservation Strategy*); (3) the monitoring and adaptive management program (Chapter 7, *Monitoring and Adaptive Management Program*); and (4) the funding strategy (Chapter 9, *Costs and Funding*).

Major local planning documents have time horizons between 20 and 50 years, reflecting the time it takes to secure the funding and permits and construct the projects identified in the plans. The largest source of Covered Activities and associated fees is projected urban growth within the Placer County and City of Lincoln General Plans. The City of Lincoln's General Plan has a 50-year time frame. Placer County's General Plan and community plans have various timelines falling within the proposed 50-year time frame as well. The County began the process of updating its General Plan starting in 2018. The general plans describe how and where growth may occur, but full build-out is not anticipated within the next 50 years for the county and city, particularly for nonresidential development (e.g., commercial, professional office, and industrial). See Appendix M, *Growth Scenario Memorandum*, for additional details.

The length of the NCCP Permit term provides adequate time for the assembly of the 47,300 acres Reserve System and development of a management program on the Reserve System lands. A 50-year NCCP Permit term provides adequate time for willing landowners to become available and for the land agents of the Plan to negotiate a fair price for the land in fee title or conservation easement (see Chapter 5, *Conservation Strategy*, for a description of the land acquisition requirements of the Plan and Chapter 8, *Plan Implementation*, for a description of the land acquisition process). It may take several years to complete a single land acquisition or purchase a conservation easement. Because many such transactions will be required to assemble the Reserve System, adequate time is needed to ensure this

can happen before the end of the NCCP Permit term. Conservation actions that occur outside the Reserve System on stream segments (e.g., stream barrier removal or modification) may require similarly long time periods to negotiate and implement.

A NCCP Permit term of 50 years also allows the monitoring and adaptive management programs to become well established and successful. As described in Chapter 7, *Monitoring and Adaptive Management Program*, the monitoring and adaptive management program will go through three distinct phases: data inventory, targeted studies, and long-term monitoring. Each phase will take many years to complete successfully. One type of monitoring, called “status and trend monitoring,” will track long-term trajectories of species’ populations and other physical and biological conditions in the Plan Area. A NCCP Permit term of 50 years will provide adequate time to collect enough data to detect trends for all of the Covered Species; if management responses are necessary, the 50-year term will also allow sufficient time to adjust management actions. Monitoring the success of restoration actions (described in Chapter 5, *Conservation Strategy*) is expected to take 5 to 10 years for each restoration project. Most restoration actions cannot be initiated until after land is acquired. A NCCP Permit term of 50 years is necessary to allow enough time to complete land acquisition with at least 5 to 10 years remaining in which to successfully initiate or complete (and possibly remediate if necessary) all restoration actions.

Finally, a 50-year NCCP Permit term allows sufficient time to generate the necessary funding for Plan implementation. As described in Chapter 9, *Costs and Funding*, the Plan will be funded by a wide variety of local, state, and federal sources. Some of these sources will not be available for 10 to 30 years or more. To take advantage of these funding sources, the NCCP Permit term must be at least 50 years. Funding is also needed during the permit term to implement management and monitoring after the permit expires (e.g., an endowment). In Chapter 9, *Costs and Funding*, the Plan describes how and when this will be accomplished. The permit term must therefore allow sufficient time to accumulate long-term funding.

Take authorization for all Covered Activities, including covered O&M activities, will expire at the end of the NCCP Permit term, unless the NCCP Permit is renewed or extended. Near the end of the NCCP Permit term, the Permittees will determine whether to request a term extension through the formal amendment process described in Chapter 10, *Assurances*.

Therefore, CDFW finds that the level of assurances and time limits specified in the IA were based on the size and duration of the Plan.

**Finding 4.6.2**

**CDFW finds that the level of assurances provided to the Permittees is commensurate with long-term conservation assurances and associated implementation measures in regard to unforeseen circumstances pursuant to the approved Plan (2820(f)(2)).**

As discussed previously in Finding 4.1.6.G, Section 10.3, *Changed and Unforeseen Circumstances Addressed by This Plan*, describes each of the changed and unforeseen circumstances associated with implementing the Plan’s conservation strategy. These changed and unforeseen circumstances, along with associated responsive actions, are summarized in Table 10-1, which lists each changed circumstance and associated responsive actions, which are funded by the Plan. The table also lists the

thresholds for unforeseen circumstances beyond which responses are not funded by the Plan. Those unforeseen circumstances include:

- Fires collectively affecting more than 200 acres of woodland within any rolling 10-year period.
- Infestations of new diseases or new non-native invasive species affecting 25% or more of the extent (i.e., acres) of a predominant natural community (i.e., oak woodland) or occupied Covered Species' habitat within the Reserve System. Spread of existing non-native species or diseases to a level 25% or more above baseline conditions within the Reserve System.
- Three or more flood events affecting the Reserve System with a magnitude equal to or greater than the 10-year flood event within any 10-year (rolling) period.
- Eight or more flood events affecting the Reserve System with a magnitude equal to or greater than the 10-year flood event over the NCCP permit term.
- Two or more flood events affecting the Reserve System with a magnitude equal to or greater than the 100-year flood event over the NCCP Permit term.
- Four or more droughts within any 10-year rolling period (any drought defined by the Palmer Drought Severity Index as moderate, severe, or extreme that lasts 12 months or more).
- Six or more droughts (12 months or more) over the NCCP Permit term.
- Any single drought event lasting 47 months or more.
- Increases of 6.0°F or more in the 10-year running average compared to the baseline period for any of the three monthly mean temperature metrics.

Provided that the Plan is being implemented consistent with the substantive terms of the NCCP Permit, the Plan, and the IA, if an unforeseen circumstance occurs the Permittees are not required to provide additional land, water, or financial compensation or additional restrictions on the use of land, water, or other natural resources during the term of the NCCP Permit without the consent of the Permittees, as described in Section 10.2 of the IA.

Per Section 2823 of the Fish and Game Code, CDFW shall suspend or revoke any NCCP Permit, in part or in whole, issued for the take of a species subject to section 2835 of the Fish and Game Code if the continued take of the species would result in jeopardizing the continued existence of the species.

Therefore, CDFW finds that the long-term conservation assurances and associated implementation measures are commensurate with the level of assurances provided to the Permittees in regard to unforeseen circumstances pursuant to the approved Plan.

#### **4.7 Findings Regarding Whether Take and Coverage are Warranted**

##### **Finding 4.7.1**

**CDFW finds that the following species are authorized for take under the Plan and coverage is warranted based on regional or landscape level consideration, such as healthy population levels, widespread distribution throughout the Plan Area, and life history characteristics that respond to habitat-scale conservation and management actions (2821(a)(1)).**

No species covered by the Plan were found to fit these criteria.

**Finding 4.7.2**

**CDFW finds that the following species are authorized for take under the Plan and coverage is warranted based on regional or landscape level considerations with site-specific conservation and management requirements that are clearly identified in the Plan for species that are generally well-distributed, but that have core habitats that must be conserved (2821(a)(2)).**

Adequate landscape-level considerations, with additional species-specific conservation measures and monitoring, including participating in regional monitoring efforts, in an adaptive management framework will be implemented for the following species: Swainson's hawk, western burrowing owl, tricolored blackbird, western pond turtle, and valley elderberry longhorn beetle.

**Swainson's Hawk**

Suitable habitat for Swainson's hawk in the Plan Area is present in the western Valley portion of the Plan Area below an elevation of 200 feet. There are seventeen relatively recent records of nesting in the Plan Area according to CDFW CNDDDB and survey records. These documented nesting occurrences are generally evenly distributed across the western portion of the Valley Plan Area.

Table 4-10 in the Plan assigns riparian and valley oak woodland within the Valley as modeled nesting habitat. Within Plan Area A there are 1,968 acres of nesting habitat, less than 1% of the total Plan Area (Table 4-11). Because riparian habitats and remnant valley oak woodlands occur in narrow patches, there are additional isolated nest trees, which are not included in land-cover mapping.

Foraging habitat is modeled extensively throughout the Valley portion of Plan Area A. Open grassland including vernal pool complex lands and, to a much lesser extent, agricultural landscapes with a variety of seasonal crops and perennial cover types provide a relatively constant source of suitable foraging habitat for Swainson's hawks throughout the nesting season. Table 4-10 assigns grassland including vernal pool complex and cropland as foraging habitat. Foraging habitat is widespread in Plan Area A, modeled at 54,574 acres, three-quarters of the Valley non-urban land cover. The Plan will result in the permanent protection and restoration of riverine/riparian and valley oak woodland natural communities, for a total of 1,268 acres of nesting habitat protected and 720 acres of riparian habitat restored (Table 5-6). With the incorporation of existing protected area (301 acres) into the protected and restored Swainson's hawk nesting habitat (1,988 acres total) required by the Plan, the Plan Area will see an overall 16% net increase of nesting habitat within Plan Area A (Table 5-6).

Implementation of the Plan will result in the permanent protection and restoration of grasslands and vernal pool complexes, for a total of 17,003 acres of foraging habitat protected and 3,920 acres of foraging habitat restored (Table 5-6). In addition to the 20,923 acres of protected and restored Swainson's hawk foraging habitat required by the Plan, incorporation of the existing 7,726 acres of protected foraging habitat will help provide for a large, interconnected Reserve System that accommodates the large home range size for this species. The preservation of 28,629 acres of foraging habitat within the Valley in Plan Area A will result in the preservation of roughly 52% of the foraging habitat identified in Plan Area A.

Species Conservation Measure CM1 SWHA-1 (Section 5.3.1.6.1) requires that the PCA protect at least four active nest trees (Objective SWHA-1.1, Protect Swainson's Hawk Nest Trees), and protect at least

741 acres of modeled foraging habitat surrounding each active nest tree protected (Objective SWHA-1.2, Protect Swainson's Hawk Foraging Habitat). The PCA will also protect at least 20 isolated trees within the Reserve System with the potential to be used as nesting sites for Swainson's hawk (Objective SWHA-1.4, Protect Isolated Trees) within the protected grasslands. To fulfill Conservation Measure CM2 SWHA-1 (Section 5.3.2.4.4) the PCA will maintain or increase prey availability for Swainson's hawk by strategically planting shrubs or placing debris piles or other substrate that provides cover and refugia for prey, on at least four sites, each within a mile of one of the protected nest trees (Objective SWHA-1.3, Enhance Foraging Habitat).

The Conservation Measures discussed above will be supported by the species-specific monitoring actions described in Plan Section 7.5.1, including: reporting protection of Swainson's hawk foraging habitat as part of compliance under the Plan; reporting acquisition of Swainson's hawk nest trees as part of compliance under the Plan; tracking compliance with nest occupancy requirements; documenting breeding annually with surveys where suitable habitat/known nest sites occur; and monitoring of known occupied nests sites throughout the Plan Area annually to document nest success/failure, number of fledglings, and potential sources of disturbance and predation (i.e. adjacent red-tailed hawk or great horned owl nests).

Swainson's hawk are susceptible to disturbance from activities that occur near active nests, which could disturb nesting and foraging behavior. Implementation of Species Condition 1, Swainson's Hawk (Chapter 6, Section 6.3.5.6), will minimize such potential effects by: requiring nest surveys for Covered Activities occurring within 0.25 mile (1,320 feet) of suitable habitat (Swainson's Hawk 1); avoidance of ground disturbing activities within 0.25 mile of active nests (Swainson's Hawk 2); removal of active (within the past 5 years) nests outside of the nesting season between September 15 and February 1 (Swainson's Hawk 3); and the use of qualified biologists to monitor construction activities to ensure that effects on Swainson's hawk are minimized (Swainson's Hawk 4).

The Plan will protect and restore modeled habitats for Swainson's hawk in the Plan Area, restore additional habitat to mitigate for impacts associated with Covered Activities, and avoid and minimize impacts to suitable and occupied habitat through the implementation of the Landscape-, Natural Community- and Species-level Conservation Measures (Plan Section 5.3), Conditions on Covered Activities (Plan Section 6.3), and Monitoring Actions (Plan Sections 7.3-7.5). In addition, the PCA will protect multiple active nests trees and suitable nest trees surrounded by adequate foraging habitat in the Reserve System. Therefore, CDFW finds that coverage is warranted for Swainson's hawk.

### **Western Burrowing Owl**

There are five recent CNDDDB reported occurrences in addition to multiple precise and non-precise reports of western burrowing owl within the Plan Area that are generally well distributed north-south within the Valley Plan Area and Reserve Acquisition Area (see Plan Appendix D, Species Map 3). Within the Plan Area, grassland/pasture, vernal pool complex, croplands, oak savannah, and valley oak woodland habitat below 200-foot elevation are considered modeled year-round habitat for the species (Tables 3-9 and 4-10), totaling 55,101 acres of modeled habitat for the species within the Valley Plan Area (Table 5-6). However, the species is also likely to be found in urban, rural residential, managed open water, and agricultural community land-cover types where natural or manmade burrow or burrow surrogates are available that provide overwintering and/or breeding sites.

With implementation of the Covered Activities, permanent impacts would result in the loss of up to 16,244 acres of modeled habitat (29% of 55,101 acres of habitat in the Plan Area), 200 acres of which will occur in Plan Area B (Table 4-11). Temporary direct effects will impact 569 acres of modeled species habitat (1%), with 40 acres occurring in Plan Area B (Table 4-12). Further analysis of the direct and indirect effects on the species can be found in Plan Section 4.7.3.

To ensure the conservation of western burrowing owl and the core natural community habitat types which they are dependent on within the Plan Area, the Plan's conservation strategy for the species provides for the protection and restoration of 29,124 acres of modeled year-round habitat constituting 53% of the modeled habitat found in Plan Area A (Table 5-6). As part of these natural community protection and restoration commitments, the PCA will implement site-specific conservation and management actions intended to protect and enhance occupied and suitable western burrowing owl habitat within the Reserve System. CM1 BUOW-2 (Plan Section 5.3.1.6.3) requires the PCA to prioritize protection of western burrowing owl habitat on sites that support or recently supported western burrowing owl (documented onsite within the previous five years) and sites that support populations of ground squirrels. Given the limited known instances of successful nesting at a single site within the Plan Area, prioritization will be given to acquisition of additional nesting sites if they are found. CM1 BUOW-1 requires the PCA to protect three ground squirrel colonies on three separate sites containing modeled burrowing owl habitat within the Reserve System (one by year 15, two more by year 30). If ground squirrel colonies cannot be protected on the Reserve System, the PCA may substitute five artificial burrows for each ground squirrel colony. If artificial burrows are used, CM2 BUOW-2 (Plan Section 5.3.2.4.2) requires the artificial burrows be placed on at least five separate reserve units, with at least four artificial burrows per reserve unit.

The Conservation Measures discussed above will be supported by the species-specific monitoring actions described in Plan Section 7.5.3, including: reporting protection of ground squirrel colonies as part of compliance under the Plan, surveying for burrows and burrowing mammals as part of natural community monitoring, surveying highly suitable habitat during the breeding and non-breeding season and prioritizing acquisition of occupied and highly suitable habitat, reporting installation and placement of artificial burrows, and monitoring species response to artificial burrows.

If grassland, vernal pool complex, semi-natural (agriculture), urban, rural residential, managed open water, and agricultural community land-cover types where natural or manmade burrow or burrow surrogates are available that provide overwintering and/or breeding sites, implementation of the relevant Conditions on Covered Activities (Plan Section 6.3) will ensure the avoidance and minimization of Covered Activity effects to the maximum extent practicable. Plan Section 6.3.5.8 contains multiple species-specific avoidance and minimization measures that are based on the CDFW's *Staff Report on Burrowing Owl Mitigation* (California Department of Fish and Game 2012). Condition Burrowing Owl 1 requires a qualified biologist to conduct two preconstruction surveys within 15 days prior to ground disturbing activities to determine the presence/absence of breeding and/or overwintering owls on the project site and within a 250-foot radius of the project footprint. Conditions Burrowing Owl 2 and Burrowing Owl 3 require the avoidance of burrows identified during surveys that are occupied by either overwintering or breeding owls and the use of non-disturbance buffers (250 feet during breeding season, 160 feet during non-breeding season), visual screens, or other measures approved by the Wildlife Agencies. If occupied burrows cannot be avoided and alternative avoidance options have been exhausted in consultation with the Wildlife Agencies, Condition Burrowing Owl 4 allows for the qualified

biologist to develop a burrowing owl exclusion plan and passively exclude owls during the non-breeding season (September 1 – January 31). Burrowing Owl 5 requires a biological monitor to be present onsite daily to ensure no Covered Activities take place within the buffer; monitor the behavior of owls in response to construction activities and avoidance/minimization measures and increase buffer zones if necessary; and provide environmental training for construction personnel related to avoidance procedures, buffer zones, and protocols in the event that a burrowing owl enters the project site.

The Plan will protect and restore modeled habitats for western burrowing owl in the Plan Area, restore additional habitat to mitigate for impacts associated with Covered Activities, and avoid and minimize impacts to suitable and occupied habitat through the implementation of the Landscape-, Natural Community- and Species-level Conservation Measures (Plan Section 5.3), Conditions on Covered Activities (Plan Section 6.3), and Monitoring Actions (Plan Sections 7.3-7.5). In addition, the PCA will protect multiple sites that are occupied or recently occupied by western burrowing owl and/or ground squirrel colonies, or alternatively provide artificial burrows. Therefore, CDFW finds that coverage is warranted for western burrowing owl.

### **Tricolored Blackbird**

The CNDDDB and Tricolored Blackbird Portal both identify approximately 15 active or recently active colony sites within the Plan Area, with most of those occurrences found within the RAA and Existing Protected Areas (Plan Appendix D, Species Map 4). Within the Plan Area marsh complex, annual grassland, pasture, vernal pool complex, and cropland/alfalfa below 300 foot elevation are modeled habitat for the species, totaling 61,608 acres (633 nesting, 60,974 foraging) of modeled habitat for the species within Plan Area A (Table 5-6).

With implementation of the Covered Activities, permanent direct effects would result in the loss of up to 55 acres of modeled nesting habitat (9% of habitat in Plan Area A) and 17,015 acres of suitable foraging habitat (28% of habitat in Plan Area A) (Table 4-11). Temporary direct effects will impact 28 acres of modeled nesting habitat (3%) and 624 acres of foraging habitat (Table 4-12). Further analysis of the direct and indirect effects on the species can be found in Plan Section 4.7.4.

To ensure the conservation of tricolored blackbird nesting and breeding habitat within the Plan Area, the Plan's conservation strategy for the species provides for the protection and restoration of 274 acres of nesting habitat and 22,138 acres of foraging habitat, resulting in the permanent protection of 73% of the modeled nesting habitat and 49% of the suitable foraging habitat found in Plan Area A (Table 5-6). As part of these natural community protection and restoration commitments, the PCA will implement site-specific conservation and management actions intended to conserve and enhance tricolored blackbird habitat within the Reserve System. As described previously in Finding 4.1.4.C, CM1 TRBL-1 requires the PCA to permanently protect five nest colony sites by year 30 of the permit term that support a minimum of 1,500 individuals for at least one nesting season. The PCA will provide 5 fresh emergent marsh sites that provide the breeding habitat requirements (2 acres in size, within 1,640 feet of open water, and at least 200 acres of suitable foraging habitat adjacent) within the restored/created nesting habitat created in the Reserve System (CM1 TRBL-1, CM2 TRBL-1, CM3 TRBL-1). In addition, the PCA will protect active breeding colony sites found in stands of Himalayan blackberry or other spiny, thorny vegetation throughout the Plan Area (CM2 TRBL-2).

The Conservation Measures discussed above will be supported by the species-specific Monitoring Actions to be implemented by the PCA described in Plan Section 7.5.4, including: reporting (acres and location) acquisition of suitable nesting habitat, including presence of tricolored blackbirds and nest colony sites as part of compliance under the Plan; reporting protection of tricolored blackbird colony sites and foraging habitat as part of compliance under the Plan; performing annual nesting surveys at all sites within the Reserve System known to previously support a nest colony for tricolored blackbirds; monitoring known populations of tricolored blackbirds within the Reserve System annually; assessing the use of enhanced and restored habitat for tricolored blackbirds; and monitoring potential threats.

If natural/semi-natural communities providing tricolored blackbird nesting and/or foraging habitat are potentially present on or adjacent to a project site, implementation of the relevant Conditions on Covered Activities (Plan Section 6.3) will ensure the avoidance and minimization of impacts to the maximum extent practicable. Plan Section 6.3.5.9 (Species Condition 4, Tricolored Blackbird) contains multiple species-specific avoidance and minimization measures that will be implemented if Covered Activities will occur within 1,300 feet of modeled nesting or foraging habitat, or if an active colony (assumed active if nesting observed in prior 10 years) site is within 3 miles of the project site. Conditions Tricolored Blackbird 1 and 2 require preconstruction surveys during the nesting season (March 15 to July 31) during the year prior to ground disturbing activities to assess the project area and a perimeter extending out in a 1,300-foot radius for the presence of nesting colonies and/or foraging habitat being utilized by an active colony located within 3 miles. If active colonies or foraging habitat are identified during preconstruction surveys, implementation of Conditions Tricolored Blackbird 3 and 4 will ensure that nesting colonies and actively used foraging habitat are avoided during the nesting season by the implementation of Wildlife Agency-approved avoidance buffers (1,300 feet for nesting colony) that can be modified based on site-specific conditions with PCA and Wildlife Agency approval. Conditions Tricolored Blackbird 5 and 6 describe the specific construction monitoring activities to be performed and authorities possessed by the qualified biologist(s) monitoring Covered Activities potentially affecting the species.

The Plan will protect and restore occupied and suitable nesting and foraging habitat for tricolored blackbird in the Plan Area, restore/create additional habitat, avoid and minimize impacts to suitable and occupied habitat through the implementation of the Landscape-, Natural Community- and Species-level Conservation Measures (Plan Section 5.3), Conditions on Covered Activities (Plan Section 6.3), and Monitoring Actions (Plan Sections 7.3-7.5). Therefore, CDFW finds that coverage is warranted for tricolored blackbird.

### **Western Pond Turtle**

Western pond turtle is believed to have been abundant in Western Placer County when it supported extensive wetlands (Hayes et al. 1999), but conversion of former wetlands to agricultural lands has likely resulted in local declines of these populations (Jennings and Hayes 1994). Therefore, the known occurrences of western pond turtle mapped in Plan Appendix D, *Species Accounts*, shows only a few sparse known occurrences across the Foothills. Based on the species presence elsewhere and historical habitat in Placer County prior to intensive agricultural conversion, the species' model is applied to the entire Plan Area, both the Valley and Foothills (Plan Table 4-10). According to the Plan's GIS-based habitat model, there are 10,244 acres of suitable aquatic habitat and 14,263 acres of suitable upland habitat for the species within Plan Area A (Plan Table 5-6; Appendix D).

As shown in Plan Table 4-11, Covered Activities will directly affect up to 750 acres of aquatic habitat for western pond turtle (7% of a total of 10,244 acres of nesting and aquatic habitat in the Plan Area) and up to 1,407 acres of upland habitat for western pond turtle in the Plan Area (10% of a total of 14,263 acres of movement and secondary nesting habitat in the Plan Area). Temporary direct effects will impact 290 acres of species habitat within the Plan Area, roughly 1% of the existing habitat in the Plan Area (Table 4-12). Additional, indirect effects are expected to result from increased vehicular traffic and the development of new roadways, causing mortalities; in-stream activities and runoff from developed areas that could degrade aquatic habitat; habitat fragmentation as a result of urban and rural development and the construction of new roads and other infrastructure; introduction, establishment, and spread of invasive plant and animal species; and increased predation rates, particularly on eggs and young, from domestic pets and invasive wildlife species. Additional detail regarding effects of Covered Activities on western pond turtle are provided in Section 4.7.6, Western Pond Turtle.

Achieving Objectives WPT-1.1 and WPT-1.2 will result in the permanent protection of 2,800 acres of aquatic habitat and 3,859 acres of upland habitat, as well as the restoration of 1,850 acres of aquatic habitat and 1,930 acres of upland habitat in the Plan Area (Table 5-6). The 10,439 acres of protected and restored habitat are considerably larger than the 2,157 acres of western pond turtle habitat that will be lost as a result of Covered Activities. The Plan establishes a goal of providing habitat for a sustained population of western pond turtles in the Reserve System. Conservation activities would include measures to result in a large, interconnected Reserve System supporting upland and aquatic habitat enabling the species to disperse between primary habitat areas, and facilitating genetic exchange (including but not limited to CM1, CM1 L-4, CM1 NC-1, CM1 WPT-1, CM2, CM2 L-4, and CM3 AW-1). The Reserve System will be managed to increase basking sites and cover (CM2 AW-5, CM2 RAR-4), control non-native invasive plants to maintain habitat integrity and access to basking sites (CM2 AW-1, CM2 RAR-1), and control invasive competitors and non-native predators would all contribute to survival of the species (CM2 AW-4, CM2 RAR-5). Additionally, application of the Conditions on Covered Activities (Plan Section 6.3) will ensure that impacts to the species are avoided or minimized through riverine/riparian and Stream System avoidance and restoration requirements, project design standards, and requiring application of BMPs for construction as well as operations and maintenance within the Plan Area.

The Plan will acquire and restore extensive aquatic natural communities and associated upland habitat for the species in both the Valley and Foothills, avoid and minimize impacts to suitable and occupied habitat through the implementation of surveys, and community- and species-specific Conservation Measures (Plan Section 5.3) and Conditions on Covered Activities (Plan Section 6.3). Therefore, CDFW finds that coverage is warranted for western pond turtle.

### **Valley Elderberry Longhorn Beetle**

As discussed previously in Finding 3.5.1 and 4.1.4.C, there are 15 documented occurrences of valley elderberry longhorn beetle within the Plan Area that are generally found within the American River watershed below Auburn, in the Dry Creek watershed along Secret Ravine and Miners Ravine, and at the Silvergate Mitigation Bank (see Plan, Appendix D). Within the Plan Area, riparian and valley oak woodland habitat below 650-foot elevation are considered modeled year-round habitat for the species (Table 3-9), totaling 6,367 acres of modeled valley elderberry longhorn beetle habitat occurring in both the Valley and Foothills (Table 5-6).

With implementation of the Covered Activities, permanent impacts would result in the loss of up to 476 acres of modeled habitat (7% of 6,376 acres of habitat in the Plan Area), primarily in Plan Area A (Table 4-11). Temporary direct effects are expected to be negligible and will only impact 18 acres of modeled species habitat (Table 4-12). Further analysis of the direct and indirect effects on the species can be found in Plan Section 4.7.10.

To ensure the protection of valley elderberry longhorn beetle and the core natural community habitat types which they are dependent on within the Plan Area, the Plan's conservation strategy for the species provides protection and restoration of 4,338 acres of modeled year-round riparian and valley oak woodland habitat constituting 68% of the modeled habitat found in Plan Area A (Table 5-6). As part of riparian natural community restoration (CM3 RAR-1), the PCA will restore riparian vegetation to reconnect isolated patches of habitat, plant elderberry shrubs, and transplant elderberry shrubs occupied or potentially occupied by valley elderberry longhorn beetle (CM3 VELB-1, Plan Section 5.3.3.4.4). Species Condition 8 (Plan Section 6.3.5.13) requires Wildlife Agency-approved surveys be conducted whenever Covered Activities have the potential to affect riparian constituent habitat, valley oak woodland community, and/or the Stream System. If these habitat features are present, the project applicant will apply avoidance and minimization measures as specified in the USFWS's Conservation Guidelines for the Valley Elderberry Longhorn Beetle (U.S. Fish and Wildlife Service 1999b) or the most current Wildlife Agency-approved avoidance and minimization protocol. In addition, the project applicant must coordinate with the PCA to provide transplants and seedlings/cuttings for planting in suitable habitat on the Reserve System. Implementation of species-specific monitoring actions (Plan Section 7.5.10) will ensure that the PCA document and monitor the presence of the species within the Reserve System, monitor threats to the species, and evaluate the species response to enhancement and restoration actions for Plan compliance.

If riparian constituent habitats, valley oak woodland community, and/or the Stream System are present on or adjacent to a project site, implementation of the relevant Conditions on Covered Activities (Plan Section 6.3) will ensure the avoidance and minimization of impacts to the maximum extent practicable. Community Conditions 2.1 and 3.1 (Plan Sections 6.3.2.2.1 and 6.3.2.3.1, respectively) require project avoidance of riparian vegetation and valley oak woodland in order to avoid assessment of special habitat fees (i.e. project does not modify any area within a buffer that extends 50 feet outward from the outermost bounds of the vegetation/canopy). If projects are unable to avoid impacts to the Stream System or constituent habitats, Community Conditions 2.2, 2.3, and 3.2 require the implementation of the Stream System BMPs (Table 6-1) and payment of special habitat fees to offset the loss of riparian and valley oak woodlands via restoration actions elsewhere within the Reserve System.

The Plan will protect and restore riparian constituent habitats for valley elderberry longhorn beetle in the Plan Area, restore additional habitat, avoid and minimize impacts to suitable and occupied habitat through the implementation of the Landscape-, Natural Community- and Species-level Conservation Measures (Plan Section 5.3), Conditions on Covered Activities (Plan Section 6.3), and Monitoring Actions (Plan Sections 7.3-7.5). Therefore, CDFW finds that coverage is warranted for valley elderberry longhorn beetle.

**Finding 4.7.3**

**CDFW finds that the following species are authorized for take under the Plan and coverage is warranted based on site-specific considerations and the identification of specific conservation and management conditions for species**

**within a narrowly defined habitat or limited geographic area within the Plan Area (2821(a)(3)).**

Adequate landscape level considerations and species-specific conservation measures, including participating in regional monitoring efforts, within narrowly defined areas will be implemented for the following species: California black rail, giant garter snake, foothill yellow-legged frog, California red-legged frog, Central Valley steelhead – Distinct Population Segment, Central Valley fall/late fall-run Chinook salmon Evolutionary Significant Unit, Conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp.

**California Black Rail**

There are three recent CNDDDB reported occurrences in addition to multiple precise and non-precise reports of California black rail within the Plan Area and Reserve Acquisition Area (Plan Appendix D, Species Map 2). Roadside reconnaissance-level surveys intended to identify suitable habitat within the Plan Area identified 20 highly suitable sites worthy of formal, protocol-level surveys to assess occupancy (Tecklin and Beedy 2014). Within the Plan Area, fresh emergent marsh habitat is considered modeled year-round habitat for the species (Tables 3-9 and 4-10), totaling 1,112 acres of modeled habitat for the species within the Plan Area (Table 5-6).

With implementation of the Covered Activities, permanent direct effects would result in the loss of up to 105 acres of modeled habitat (9% of the 1,112 acres of habitat in Plan Area A), 5 acres of which will occur in Plan Area B (Table 4-11). Temporary direct effects will impact 40 acres of modeled species habitat (3%), with 10 acres occurring in Plan Area B (Table 4-12). Further analysis of the direct and indirect effects on the species can be found in Plan Section 4.7.2.

To ensure the conservation of California black rail and the fresh emergent marsh habitat which they are dependent on within the Plan Area, the Plan's conservation strategy for the species provides for the protection and restoration of 625 acres of modeled year-round habitat, 56% of the modeled habitat found in Plan Area A (Table 5-6). As part of these natural community protection and restoration commitments, the PCA will implement site-specific conservation and management actions intended to protect and enhance modeled California black rail habitat within the Reserve System. As described previously in Finding 4.1.4.C, CM1 BLRA-1 requires the PCA protect at least five occupied sites within the Reserve System by year 45 of Plan implementation with the ability to take occupied sites if other criteria including the preservation of additional sites are met (Plan Section 5.3.1.6.2). Implementation of CM1 BLRA-1, CM2 BLRA-1, CM2 BLRA-2, and CM3 BLRA-1 also requires that black rail habitat protection and restoration/creation sites meet specific water, sediment, vegetation, and other management criteria and tasks the PCA with monitoring and reporting of these requirements to the Wildlife Agencies.

The Conservation Measures discussed above will be supported by the species-specific Monitoring Actions to be implemented by the PCA described in Plan Section 7.5.2, including: documenting the acquisition of emergent marsh (sites and acreage) as part of compliance under the Plan; tracking compliance of three to five sites, progressively demonstrated from Year 20 to Year 45; surveying a subset (20 percent) of potential habitat during the breeding season annually to determine occupancy; evaluating species response to habitat restoration and creation; and monitoring potential threats.

If fresh emergent marsh habitat is present on or adjacent to a project site, implementation of the relevant Conditions on Covered Activities (Plan Section 6.3) will ensure the avoidance and minimization of impacts to the maximum extent practicable. Plan Section 6.3.5.7 (Species Condition 2, California Black Rail) contains multiple species-specific avoidance and minimization measures that will be implemented if Covered Activities will occur within 500 feet of the perimeter of a fresh emergent wetland greater than 0.2 acre in size. Condition California Black Rail 1 requires a minimum of four breeding season surveys (March 15 through July), spaced at least 10 days apart, for all Covered Activities that will result in ground disturbance or potential disruption of water supply supporting potential breeding habitat. Surveys must be conducted using survey protocol based on the methods used in Richmond et al. (2008) or revised guidance agreed upon by the Permittees and Wildlife Agencies. If California black rail is determined to be present, no project activities are permitted within 500 feet of the outside perimeter of the occupied wetland, unless approved by the PCA and Wildlife Agencies with a qualified biologist monitoring the activities to ensure the species is not disturbed. Condition California Black Rail 2 requires a demarcated 500-foot buffer from the outside edge of any occupied wetland identified during surveys, for which PCA take coverage has not been granted pursuant to CM1 BLRA-1. For those Covered Activities with take coverage for an occupied black rail site, Condition California Black Rail 3 requires that clearing of suitable habitat/dewatering occur between September 15 and February 1, outside of the breeding season. California Black Rail 4 requires a qualified biologist be on-site during construction to ensure that no Covered Activities occur within the buffer zone established around the occupied wetland, or if take allowance is granted outside of the breeding season, to ensure that adverse effects are minimized. Prior to the start of construction, the qualified biologist will train construction personnel on the avoidance procedures and buffer zones.

The Plan will protect and restore modeled habitats for California black rail in the Plan Area, restore/create additional habitat, avoid and minimize impacts to suitable and occupied habitat through the implementation of the Landscape-, Natural Community- and Species-level Conservation Measures (Plan Section 5.3), Conditions on Covered Activities (Plan Section 6.3), and Monitoring Actions (Plan Sections 7.3-7.5). Therefore, CDFW finds that coverage is warranted for California black rail.

### **Giant Garter Snake**

Although giant garter snake has been recorded frequently in neighboring Sutter and Sacramento counties, there are no records of the species' occurrence in western Placer County and it is believed that its original habitat in the vast tule marshes around the Sacramento River did not extend appreciably east into what is now Placer County. However, extant populations of the species occur immediately adjacent to the Plan Area in Sacramento and Sutter Counties and Dudek Consulting (2014) identified suitable habitat for giant garter snake within the Plan Area from approximately Sheridan south to the area of Baseline Road and South Brewer Road. According to the Plan's GIS-based habitat model, there are 19,511 acres of suitable aquatic habitat and 3,537 acres of associated suitable upland habitat for the species within Plan Area A (Plan Table 5-6; Appendix D).

Covered Activities will directly affect up to 1,438 acres of giant garter snake breeding and foraging habitat in the Plan Area (7% of a total of 19,511 acres of breeding and foraging habitat) and 483 acres of upland refugia habitat in the Plan Area (14% of a total of 3,537 acres of upland refugia habitat) (Plan Table 4-11). Temporary direct effects will impact 225 acres of species habitat within the Plan Area, roughly 1% of the existing habitat in the Plan Area (Table 4-12). If the species is present in the Plan Area,

indirect effects could result from construction and maintenance of infrastructure associated with urban and rural development and changes in hydrology resulting from land conversions. Additionally, in-stream activities such as installation and maintenance of utility lines, road improvements, drainage facility improvements, and flood control projects may indirectly affect giant garter snake. These indirect effects are described in further detail in Section 4.7.5, Giant Garter Snake.

To ensure the conservation of giant garter snake within the Plan Area, the Plan's conservation strategy for the species provides for the protection of 2,702 acres of modeled aquatic habitat and 1,763 acres of modeled upland habitat, and will provide habitat to facilitate expansion of the giant garter snake into the Reserve System consistent with Goal GGS-1 (Plan Table 5-6). As part of this habitat protection commitment, implementation of CM1 GGS-1 to achieve Objective GGS-1.1 will result in the protection of 2,000 acres of rice land (or fresh emergent wetland as an equivalent), which will be managed to provide aquatic and adjacent upland habitat for giant garter snake. Rice lands to be protected for giant garter snake will be managed to provide four basic habitat elements needed by giant garter snake: (1) adequate water during the snake's active season (March 1 to September 30), (2) emergent herbaceous wetland vegetation for escape and foraging habitat, (3) grassy banks and openings in waterside vegetation for basking, and (4) higher elevation upland habitat for cover and refuge from flooding. Summer aquatic habitat is essential because it supports the frogs, tadpoles, and small fish that the giant garter snake preys upon. The PCA will develop a water management plan within 12 months of acquisition for rice lands on the Reserve System that will be managed to provide suitable habitat features for giant garter snake. These plans will be reviewed and approved by the Wildlife Agencies and integrated into Reserve Management Plans.

If natural communities potentially supporting modeled giant garter snake habitat are present on or adjacent to a project site, Species Condition 5, Giant Garter Snake (Plan Section 6.3.5.10) will be implemented to avoid or minimize the effects of Covered Activities. As part of this Condition, a qualified biologist will conduct a survey to assess whether the communities provide suitable habitat for giant garter snake. Giant garter snake surveys will be conducted according to the USFWS's *Standard Avoidance and Minimization Measures During Construction Activities in Giant Garter Snake (*Thamnophis gigas*) Habitat* (2015) or the most current Wildlife Agency-approved protocol. If suitable habitat for the species is present, implementation of Giant Garter Snake 1 (Plan Section 6.3.5.10.2) will avoid impacts by requiring a 200-foot non-disturbance buffer from the outer edge of suitable habitat. If Covered Activities cannot avoid suitable habitat, additional minimization measures will be employed including but not limited to: preconstruction clearance surveys conducted within 24-hours prior to ground disturbing activities or after any two week or longer lapse in construction activities, restricting all construction activity involving disturbance of giant garter snake habitat to the snake's active season (May 1 through October 1), dewatering aquatic features for at least 15 days prior to construction activities to encourage snakes to leave the area, worker environmental awareness training, and capture and relocation of snakes from project sites if necessary.

The Plan will acquire rice (or fresh emergent marsh as equivalent) in fee title or easements along the western border of the Plan Area that will be managed for giant garter snake habitat, acquire and restore suitable wetland natural communities and associated upland habitat for the species, avoid and minimize impacts to suitable and occupied habitat through the implementation of surveys, and community- and species-specific Conservation Measures (Plan Section 5.3) and Conditions on Covered Activities (Plan Section 6.3). Therefore, CDFW finds that coverage is warranted for giant garter snake.

### **Foothill Yellow-legged Frog**

There are no current records of foothill yellow-legged frog in western Placer County, although the species has several documented occurrences in Placer County to the east of the Plan Area and are assumed to be present or potentially present within the Foothill region of the Plan Area because much of the suitable habitat in Plan Area A has not been systematically surveyed for the species. Potential habitat for foothill yellow-legged frog occurs in the stream and riparian habitat of the Bear River, Raccoon Creek and its upper tributaries, Auburn Ravine, Pleasant Grove Creek, and Dry Creek and its upper tributaries (see Appendix D, Species Accounts). According to the Plan's GIS-based habitat model, there are 1,837 acres of suitable year-round habitat in the Foothills portion of Plan Area A.

There are sixty-one recent records (1998–2020) for this species in Placer County outside of the Plan Area to the east in the foothills of the Sierra Nevada range (California Natural Diversity Database 2020). The closest extant occurrence of foothill yellow-legged frog to the Plan Area is located just downstream of the Clementine Reservoir, approximately 2.5 miles east of the northeastern boundary of the Plan Area. There are no known occurrences within the Plan Area boundary.

Implementation of the Covered Activities would result in 155 acres of permanent habitat impacts (8% of modeled habitat in Plan Area; Table 4-11) and 39 acres of temporary habitat impacts (2% of modeled habitat in Plan Area; Table 4-12) in the Foothills. In terms of stream miles, Covered Activities would directly affect up to up to 3 miles of potential foothill yellow-legged frog riverine habitat (1% of a total of 290 stream miles of estimated habitat in the Plan Area) and 5 acres of riparian foraging and movement habitat (1% of a total of 593 acres of modeled foraging and movement habitat in the Plan Area). To meet Objectives FYLF-1.1, FYLF-1.2, and FYLF-1.3, the PCA will include in the Reserve System protection of 6 miles of species modeled riverine habitat, protection of 83 acres of riparian vegetation in the Foothills that provides foraging and movement habitat, and restoration of at least 83 acres of riverine/riparian complex suitable for supporting the species (Table 5-6). Additionally, Covered Activity effects on the riverine/riparian natural community will be mitigated at a restoration ratio of 1.52:1 (Table 5-4), potentially resulting in an additional 1,393 acres of riverine/riparian habitat complex restoration that will support Covered Species including foothill yellow-legged frog (Table 5-5).

The Plan will protect and restore 166 acres of riparian habitat throughout the Foothills Reserve Acquisition Area that provides suitable year-round habitat for foothill yellow-legged frog, including all 6 stream miles of modeled foothill yellow-legged frog riverine habitat. Additionally, application of the Conditions on Covered Activities (Plan Section 6.3) will ensure that impacts to the species are avoided or minimized through riverine/riparian and Stream System avoidance and restoration requirements, project design standards, and requiring application of BMPs for construction as well as operations and maintenance within the Plan Area. The Plan will further provide for the conservation of the species during Plan monitoring and adaptive management by seeking out stream reaches occupied by adult foothill yellow-legged frog and stream reaches used for breeding, identifying unoccupied breeding habitat with the potential to support breeding populations, conducting assessments of riparian vegetation and stream substrate along occupied and unoccupied stream reaches, and documenting the managing presence of predators (Plan Section 7.5.7). Therefore, CDFW finds that coverage is warranted for foothill yellow-legged frog.

### **California Red-legged Frog**

There are very limited records for California red-legged frog in Placer County. One historic occurrence near the Placer County Superior Courthouse in Auburn, and three extant occurrences near Michigan Bluff at the Big Gun Conservation Bank (Plan Area B5). There are no known extant occurrences in Plan Areas A, B1, B2, B3, or B4. However, much of the Placer County land that is privately owned has not been surveyed and may support unidentified populations of California red-legged frog. Where suitable habitat persists, California red-legged frog has some potential for occurrence in the Plan Area as much of the Plan Area has not been systematically surveyed for the species. According to the Plan's GIS-based habitat model, there are 8,532 acres of suitable aquatic habitat and 75,306 acres of suitable upland habitat for the species within the Plan Area A Foothills (Plan Table 5-6; Appendix D). Within the Plan Area, potentially suitable aquatic habitat occurs in the Foothills portion of the Plan Area and is comprised of ponds, fresh emergent marsh, seasonal wetlands, riverine/riparian, and wetland land-cover types and constituent habitats.

Covered Activities will directly affect up to 672 acres of aquatic breeding and foraging habitat (8% of a total of 8,532 acres of breeding and foraging habitat in the Plan Area), and up to 8,551 acres of upland movement and refugia habitat (11% of a total of 75,306 acres of modeled upland movement and refugia habitat in the Plan Area) for California red-legged frog in the Foothills portion of the Plan Area (Plan Table 4-11). Covered Activities will result in temporary direct effects on 382 acres (168 aquatic, 214 upland) of suitable habitat in the Foothills (Plan Table 4-12).

To meet Objectives CRLF-1.1, CRFL-2.1, and CRLF-2.2 the Reserve System will include 1,168 acres of protected and 1,241 acres of restored aquatic habitat and 12,484 acres of protected and 160 acres of restored upland habitat (Table 5-6) to facilitate the expansion of the California red-legged frog population in the Plan Area, and acquire at least 4 acres of occupied habitat at Big Gun Conservation Bank (Plan Area B5). Additionally, implementation of the conservation strategy will provide at least 2,200 acres of riparian natural community and 88.6 stream miles in the Reserve System, and provide at least 1,060 acres of restored riparian natural community in the Reserve System as well as an additional restored riparian natural community to meet a 1.5:1 ratio of restored to affected. These conservation actions will provide additional habitat as well as dispersal corridors if California red-legged frog are found in Plan Area A or adjacent to the Plan Area.

Reserve System parcels with the potential to support California red-legged frog will be assessed upon acquisition and, if applicable, surveys will be conducted to determine occupancy. If additional extant populations of California red-legged frog were to be discovered in the Plan Area, protection of associated habitat would be critical due to the species' rarity in the County and in the region. In general, maintenance of suitable aquatic habitats with adjacent upland areas are of highest priority for conservation of California red-legged frog, and ponds that provide potential breeding habitat should be protected when feasible within the Reserve System.

The Plan will protect and restore modeled habitats for California red-legged frog in the Plan Area, through the implementation of the Landscape-, Natural Community- and Species-level Conservation Measures (Plan Section 5.3) and Monitoring Actions (Plan Sections 7.3-7.5). Additionally, application of the Conditions on Covered Activities (Plan Section 6.3) will ensure that impacts to the species are avoided or minimized through riverine/riparian and Stream System avoidance and restoration requirements, project design standards, and requiring application of BMPs for construction as well as

operations and maintenance within the Plan Area. Therefore, CDFW finds that coverage is warranted for California red-legged frog.

### **Salmonids**

As discussed previously in this document, Central Valley fall-/late fall-run Chinook salmon and Central Valley steelhead (hereafter Chinook salmon and steelhead) use multiple watersheds in the Plan Area for spawning, rearing, and migration corridors. These streams are referred to in the Plan as salmonid streams. As detailed in Plan Appendix D, *Species Accounts*, the salmonid streams in the Plan Area are the Bear River below Camp Far West, Raccoon Creek, Doty Ravine, Auburn Ravine, and Dry Creek and its tributaries, Secret Ravine, Miners Ravine, Linda Creek, Antelope Creek, and Cirby Creek. Within the Plan Area Chinook salmon and steelhead use 122 miles, or roughly 60%, of all major streams in western Placer County (see Plan Table 3-17 and Table 3-18 for summaries of salmonid habitat in the Plan Area and Appendix D Species Maps 9 and 10 for visual depictions of these habitats).

With implementation of the Covered Activities, permanent direct effects on covered salmonids are estimated to be 1.24 miles or 1.3% of the total length of salmonid habitat, comprising 1.02 miles of spawning habitat (1.5% of all spawning habitat) and 0.22 mile of migration habitat (0.9% of all migration habitat) (Plan Table 4-7A). The areal representation of the linear stream habitat is about 16 acres out of the 1,123-acre riverine total (1%). Temporary direct effects on covered salmonids are estimated to be 11.19 miles of the total length of salmonid habitat, comprising 8.35 miles of spawning habitat (12.3% of all spawning habitat) and 2.84 mile of migration habitat (11.6% of all migration habitat) (Plan Table 4-7B). These species may also be indirectly affected through water quality degradation generally throughout all habitat reaches in the Plan Area but primarily in the Valley where effects of up-stream urbanization will be greater. Further discussion of the direct and indirect impacts to Chinook salmon and steelhead associated with the Covered Activities can be found in Plan Section 4.7.9.

To ensure the conservation of Chinook salmon and steelhead and the riverine/riparian habitat which they are dependent on within the Plan Area, the Plan's conservation strategy for the species provides for the protection of 88.6 stream miles in the Reserve System, including 25 stream miles of salmonid spawning habitat and 10 miles of salmonid migration/rearing habitat; and the protection of 558 acres of riparian habitat along salmonid spawning stream reaches and 342 acres of riparian habitat along salmonid migration reaches primarily on stream reaches along Raccoon Creek, Doty Ravine, and Auburn Ravine (CM1 FISH-1). Additionally, the PCA will acquire at least 142 acres along spawning stream reaches and 74 acres along salmonid migration/rearing stream reaches for restoration of riparian habitat (CM2 FISH-1). Up to an additional 110 acres, dependent on effect, will be acquired along salmonid streams to restore riparian habitat to meet a 1.5:1 ratio of restored: affected. Restoration of riparian habitat to benefit covered salmonids will occur primarily along Raccoon Creek, Doty Ravine, and Auburn Ravine.

If salmonid stream habitat is present on or adjacent to a project site, implementation of the relevant Conditions on Covered Activities (Plan Section 6.3) will ensure the avoidance and minimization of impacts to the maximum extent practicable. Plan Section 6.3.5.12 (Species Condition 7, Salmonids) describes several General-, Community, and Species-level Conditions that will be implemented when salmonid streams are present on or adjacent to a project site. Condition Salmonid 1 requires that streamflow through new and replacement culverts, bridges, and over stream gradient control structures must meet the velocity, depth, and other passage criteria for salmonid streams as described by NMFS

and CDFW guidelines or as developed in cooperation with NMFS and CDFW to accommodate site-specific conditions (Guidelines for Salmonid Passage at Stream Crossings [National Marine Fisheries Service 2001] or most current CDFW and NMFS-approved guidelines). Condition Salmonid 2 requires that fish passage through dewatered channel sections shall be maintained at all times during the adult and juvenile migration season on salmonid streams to allow for unimpeded passage of migrating adults and juveniles (smolts). In addition, fish passage shall be maintained during summer on streams supporting summer rearing of salmonids to allow for seasonal movement of resident (over-summering) fish when the natural channel segment within the vicinity of work areas also supports the movement of resident fish. Condition Salmonid 3 requires a qualified biologist to exclude or relocate salmonids to suitable stream reaches prior to the start of instream work or during the installation of water diversion structures, if salmonids are present and it is determined that they could be injured or killed by construction activities. Conditions Salmonid 4 and Salmonid 5 describe the restrictions and procedures for Covered Activities that introduce riprap and/or spawning gravels into salmonid streams.

In addition to the habitat protection and restoration commitments described above, the PCA will engage with private and public landowners to remove high priority fish passage barriers (CM2 RAR-2), modify unscreened diversions on salmonid streams in the Reserve System (CM2 RAR-3), and will implement a number of in-channel enhancement measures to improve habitat for the Covered Species (CM2 RAR-4). The PCA may also conduct in-channel improvement measures and riparian restoration within and along the salmonid-bearing channels west of Placer County in Sutter and Sacramento Counties (e.g., Raccoon Creek, Doty Ravine, and Auburn Ravine), however in-channel improvement and riparian restoration conducted by the PCA in Plan Area B3 and B4 (Figure 5-4) will not contribute toward meeting project-specific mitigation requirements.

The Conservation Measures discussed above will be supported by the species-specific Monitoring Actions to be implemented by the PCA described in Plan Section 7.5.9, including: documenting presence of covered fish in the Reserve System and at restoration and enhancement sites outside the Reserve System; reporting (acres and location) acquisition of spawning, migration, and watershed habitat for covered fish; reporting actions to enhance habitat for covered fish that occur within and outside the Reserve System; tracking compliance with fish-specific management actions, evaluating salmonid response to riparian enhancement actions; and monitoring threats to covered fish.

The Plan will protect and restore salmonid stream and associated riparian habitats in the Plan Area, restore/create additional habitat to mitigate for impacts associated with Covered Activities, and avoid and minimize impacts to suitable and occupied habitat through the implementation of the Landscape-, Natural Community- and Species-level Conservation Measures (Plan Section 5.3), Conditions on Covered Activities (Plan Section 6.3), and Monitoring Actions (Plan Sections 7.3-7.5). Therefore, CDFW finds that coverage is warranted for the covered fish species, Chinook salmon and steelhead.

### **Vernal Pool Branchiopods**

As discussed previously in Findings 3.5.2 and 4.1.4.C, there is currently one extant occurrence of Conservancy fairy shrimp, 63 occurrences of vernal pool fairy shrimp, and three occurrences of vernal pool tadpole shrimp in the vernal pools and seasonal wetlands that compose the vernal pool complex land-cover type in the Valley Plan Area (California Department of Fish and Wildlife 2017). The known occurrences of vernal pool fairy shrimp and vernal pool tadpole shrimp are generally evenly distributed

across this natural community type, which serves as modeled habitat for the covered vernal pool branchiopods in the Plan Area (Figure 5-9). However, the single known occurrence of Conservancy fairy shrimp at the Mariner Reserve site results in the inability to use the Plan's GIS based model to assign suitable habitat for the species. Within the Valley Plan Area, there are 44,278 acres of vernal pool complex natural community type (Table 3-13) with 2,230 acres of associated aquatic habitat constituents (Table 3-14). Modeled year-round habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp is defined by all densities of vernal pool grassland complex in the Valley (Plan Tables 3-9 and 4-10).

As shown in Plan Table 4-11, Covered Activities will directly affect 12,550 acres of vernal pool branchiopod habitat (approximately 28% of a total of 44,278 acres of vernal pool complex habitat in the Plan Area), 12,400 acres in the Valley, 100 acres in the Foothills, and 50 acres in Plan Area B. Covered Activities will remove no more than 185 acres of actual delineated vernal pool wetland (Table 4-1). Temporary impacts of Covered Activities on vernal pool branchiopod habitat would not exceed 30 acres of vernal pool-type wetlands (1% of this habitat type in the Plan Area) and 455 acres of vernal pool complex (1% of this habitat type in the Plan Area) (Plan Table 4-12). The 851 acres of vernal pool fairy shrimp Critical Habitat to be lost under the Plan constitutes 0.14% of all designated Critical Habitat (851/597,821 acres) in California. Further analysis of these direct and indirect effects on the Covered Species can be found in Plan Sections 4.7.11 and 4.7.12.

To ensure the protection of vernal pool branchiopods and the geographically limited natural community which they are dependent on within the Valley Plan Area, the Plan's conservation strategy for the vernal pool branchiopods provides protection of 17,000 acres of vernal pool complex, including at least 790 wetted acres of vernal pool constituent habitats (Table 5-6). Additionally, it provides restoration or creation of at least 3,000 acres of vernal pool complex in the Reserve System, including up to 900 acres of vernal pool constituent habitat to meet a 1.5:1 ratio of restored to affected habitat (Table 5-4). Implementation of Conservation Measures CM1 VPB-1, CM2 VPCG-1, CM2 VPCG-2, and CM3 VPB-1 will ensure that the protected and restored vernal pool complex habitat described above include sufficient occupied vernal pool fairy shrimp and vernal pool tadpole shrimp habitat to ensure an occupancy rate that is equal to or greater than the occupancy rate of vernal pools lost as a result of Covered Activities, for each species (Plan Section 5.3.1.6.10). Given the extremely limited occurrences of Conservancy fairy shrimp in the Plan Area, implementation of Conservation Measure CM1 VPB-2 will ensure that the PCA will protect two occurrences of Conservancy fairy shrimp prior to the first occurrence lost and protect three new occurrences for each additional occurrence lost.

As discussed previously, the Plan will provide for vernal pool fairy shrimp and vernal pool tadpole shrimp recovery in the Plan Area and includes all of the six elements listed in the recovery plan for an HCP to be deemed equivalent to implementation of the recovery plan for the covered area. There are no recovery goals for Conservancy fairy shrimp in Placer County (U.S. Fish and Wildlife Service 2005). The protection of two occurrences for the first occurrence lost, and three occurrences for each additional occurrence lost, will ensure that if there is a metapopulation of Conservancy fairy shrimp in the Plan Area, it will be sustained.

If vernal pool complex and constituent habitats potentially supporting the covered vernal pool branchiopod species are present on or adjacent to a project site, implementation of the relevant Conditions on Covered Activities (Plan Section 6.3) will ensure the avoidance and minimization of

impacts to the maximum extent practicable. Community Conditions 1.1 (Plan Section 6.3.2.1.1) will ensure that vernal pool complex and associated aquatic habitat constituents are delineated according to the most current agency-approved protocols with direct and indirect effects quantified for any ground disturbances encroaching on the immediate watershed (within 250 feet of vernal pool constituent habitat) and exclusion zones established by qualified biologists for avoidance of non-impacted immediate watersheds. Community Condition 1.4 (Plan Section 6.3.2.1.4) requires that project applicants coordinate grading and construction schedules with the PCA so that if a project cannot avoid effects, vernal pool constituent habitat wetland soil and other wetland biota may be salvaged through the collection and storage of seeds, cysts, eggs, spores, and similar inocula for other vernal pool constituent habitats that will be created or restored elsewhere in the Plan Area. Species Conditions 9 and 10 (Plan Sections 6.3.5.14 and 6.3.5.15) will ensure that protocol level surveys are conducted for the vernal pool branchiopods during both the wet and dry season (Conservancy Fairy Shrimp 1, Vernal Pool Fairy Shrimp and Tadpole Shrimp 1). Additionally, Conservancy Fairy Shrimp Measures 2, 3, 4, and 5 are necessary to ensure full avoidance of the species (except as provided by CM1 VPB-2). These Measures require the establishment of 250-foot upland buffer from the outer edge of all hydric vegetation associated with occupied wetlands that is brightly colored and maintained throughout the implementation of Covered Activities in addition to restricting the activities that are allowed to occur within the 250-foot buffer.

The Plan will protect and restore vernal pool complex and associated aquatic constituent habitats for the covered vernal pool branchiopod species in the Valley Plan Area, restore additional habitat to mitigate for impacts associated with Covered Activities, and avoid and minimize impacts to suitable and occupied habitat through the implementation of Landscape-, Natural Community- and Species-level Conservation Measures (Plan Section 5.3), Conditions on Covered Activities (Plan Section 6.3), and Monitoring Actions (Plan Sections 7.3-7.5). Therefore, CDFW finds that coverage is warranted for the three covered vernal pool branchiopod species.

**Finding 4.8**

**CDFW finds that the mitigation measures specified in the Plan and imposed by the Plan participants are consistent with subdivision (d) of Section 2801 (2821(b)).**

For the reasons set forth in the preceding findings, CDFW has determined that the Plan specifies and imposes mitigation measures that are consistent with the standards of 2801(d) regarding coordination and cooperation among public agencies, landowners, and other private interests, providing a mechanism by which landowners and development proponents can effectively address cumulative impact concerns, promoting conservation and management of unfragmented diverse habitat areas, promoting multispecies and multi-habitat management and conservation, providing an option for identifying and ensuring appropriate mitigation that is roughly proportional to impacts on fish and wildlife, and promoting the conservation of broad-based natural communities and species diversity (Findings 4.1.1, 4.1.3, 4.1.4, 4.2.2, 4.2.9, 4.4, 4.5, 4.6.1 of this NCCP Permit).

## **NCCP PERMIT**

### **5.0 APPROVAL OF THE NCCP PERMIT**

Based on the foregoing findings, CDFW concludes that the Plan meets all necessary requirements for approval as an NCCP. CDFW hereby approves the Plan for implementation as an NCCP and authorizes the Permittees to take the species identified below in Section 5.2 (subject to the limitations in this NCCP Permit) incidental to the activities described below in Section 5.1. This NCCP Permit is specifically conditioned on the Permittees compliance with requirements of this Permit, the Plan, and the IA.

### **5.1 Covered Activities**

This Permit authorizes take of Covered Species resulting from Covered Activities defined in the IA and listed in Chapter 2, Section 2.6, of the Plan. Take of Covered Species is not authorized by this Permit until the IA has been executed by all Permittees. Covered Activities in the Plan fall into seven categories:

#### **Valley Potential Future Growth Area (A1)**

This category includes all ground- or habitat-disturbing projects and activities that occur in component A1, Valley PFG (see Figure 2-4). The Valley PFG comprises 46,769 acres made up by the City of Lincoln and a portion of the adjacent Lincoln sphere of influence and unincorporated county area adjacent to the city of Roseville. Both public and private activities are included in this category. This category is intended to be as inclusive as possible to accommodate as many ground-disturbing activities associated with growth as possible. It includes rural and urban land uses and the use, construction, demolition, rehabilitation, maintenance, and abandonment of typical public facilities, consistent with the implementation of local general plans, community plans, area plans (collectively referred to as general plans), specific plans, and local, state, and federal laws. Acquisition of reserve lands and conservation activities may potentially occur in the Valley PFG, primarily in the Stream System, and where large blocks of high-quality Covered Species' habitat can be incorporated into the Reserve System.

Activities in the Valley PFG are based on designations in the general plans of the County and the City of Lincoln, as described in Section 2.4.1.1, *General Plan Land Use (City of Lincoln)*, and Section 2.4.2.1, *General Plan Land Use (Placer County)*. Covered urban uses, including those within the Valley PFG, are summarized in Table 2-6. Ongoing rural and agricultural uses are summarized in Table 2-7. Public agency programs, even if they take place within the Valley PFG, are described in Section 2.6.4, *Foothills Conservation and Rural Development (A4)*, and summarized in Table 2-8, as they are covered in the Valley PFG.

The categories of land use consistent with urban and suburban general plan designations listed in Table 2-6 include:

- Urban Development - Residential, commercial, office/professional, industrial, public/quasi-public
- Transient Lodging - Hotels/motels and recreational vehicle parks
- Service Uses - Banks and financial services, professional offices, medical services, day care facilities, educational facilities, and business support services
- Public Facilities - New fire stations, police/sheriff stations and substations, community policing centers, communications facilities (including antennae, towers, and equipment facilities), public administration centers, convention centers, theatres, community centers, concert venues, community gardens, and concession buildings

- Recreational Facilities (public/private) - Regional parks, neighborhood parks, dog parks, soccer fields, golf courses, indoor and outdoor sports centers, recreational centers, trails, golf courses, racetracks, campgrounds, and associated infrastructure including roads, bridges, parking areas, and restrooms. *Note: Public use of trails and other park facilities is not a Covered Activity*
- Funeral/Interment Services - Mortuaries, crematorium, columbaria, mausoleums, and similar services when in conjunction with cemeteries
- Other Urban/Suburban Uses - Activities consistent with the local general plan and zoning ordinances of Placer County or the City of Lincoln, which are similar in nature to the uses listed above
- Land Use Consistent with Rural and Agricultural General Plan Designations - Urban and suburban general plan designations also allow land uses listed in Table 2-7
- Public Facilities Consistent with Rural and Agricultural General Plan Designations - Urban and suburban general plan designations also allow public facilities listed in Table 2-8

The City of Lincoln and Placer County have developed several planning documents that outline strategies and projects in accordance with current general plans. To the extent that these plans are consistent with the goals of the Plan, implementation of these planning documents will be covered. Examples of current planning documents in the Valley PFG include the following:

- City of Lincoln General Plan
- Placer County General Plan
- Dry Creek/West Placer Community Plan
- Sunset Industrial Area Plan
- Sheridan Community Plan
- Placer Vineyards Specific Plan
- Regional University Specific Plan
- Riolo Vineyards Specific Plan
- The City of Lincoln's Bikeways Master Plan and the 2001 Placer County Regional Bikeway Plan (Placer County Transportation Planning Agency 2002)

Additional area plans, community plans, specific plans and updates to comprehensive general plans will be developed over the course of the NCCP Permit term. The general plans, specific plans, and implementing zoning may be changed within Valley PFG (A1) over the course of the NCCP Permit term to accommodate the growth scenario described in Appendix M, *Growth Scenario Memo*, by allowing the following:

- Changes in allowed land use type
- Increased land use intensity
- Increased residential density

### **Valley Conservation and Rural Development Area (A2)**

This category includes all ground- or habitat-disturbing projects and activities that occur in the Valley in Plan Area A2, Valley Conservation and Rural Development, component of the Plan Area. This represents the Valley RAA and EXR but excludes the Valley PFG (see Figure 2-4). This 53,929-acre area is an arc of unincorporated county land around the west and north side of the Valley PFG. Covered Activities here

include rural-residential uses and the few types of agriculture-related activities, which are subject to approval by the County or City. The Valley Conservation and Rural Development area is where most of the Plan conservation objectives for the Valley will be implemented; PCA acquisition and management of reserve lands in the RAA is a Covered Activity described in Section 2.6.6, *In-Stream Activities*.

Activities in the Valley Conservation and Rural Development area must be consistent with designations in the general plans of the County and the City of Lincoln. Rural development activities covered by the Plan are summarized in Table 2-7. Public agency programs are described in Section 2.6.4, *Foothills Conservation and Rural Development (A4)*, and as summarized in Table 2-8, as they are covered as part of Valley Conservation and Rural Development activities.

The categories of land use consistent with rural and agricultural general plan designations listed in Table 2-7 include:

- Rural Residential - Single-family homes at a density less than one dwelling per 2.3 acres. This includes privately owned roads, bridges, driveways, emergency access roads, clearing land for a range of rural residential land use activities, and other features commonly associated with rural dwelling units and use of land in rural settings.
- Public/Private Recreational Facilities - Neighborhood parks, dog parks, soccer fields, golf courses, indoor and outdoor sports centers, recreational centers, open space and passive recreation facilities, trails, golf courses, racetracks, campgrounds, and associated infrastructure including roads, bridges, parking areas, and restrooms as well as maintenance facilities.
- Private Facilities of Public Assembly - Churches, convention centers, theaters, rural recreational uses (e.g., equestrian facilities), community centers, concert venues, community gardens, and concession buildings.
- Transportation Facilities - New capital facility construction, roads, road widening, shoulder improvements, bike lane construction, bridge replacement/widening, culverts, transit facilities, and park and ride facilities.
- Agricultural Facilities and Uses - Plant nurseries, greenhouses, wine production, wineries, equestrian facilities, farm equipment sales, community centers, and outdoor retail sales. This may include nurseries, Christmas tree farms, ornamental plant nurseries, dairies, and feedlots, if a discretionary permit is required.
- Food Production Facilities - Industrial/manufacturing uses associated with food/beverage production and agricultural support services.
- Agricultural Uses Requiring Conditional/Minor Use Permits - New intensive agriculture that requires a conditional/minor use permit consistent with local general plans, such as commercial equestrian facilities, dairy and swine operations, equestrian event facilities, and wineries.
- Fuel Load Modifications and Treatments - Fuel load modifications and treatments consistent with the Placer County Community Wildfire Protection Plan, Placer County Local Hazard Mitigation Plan, Placer County Strategic Plan for Biomass Utilization Program, local ordinances, and Public Resources Code 4291.
- Vegetation Management - Fuel reduction (including hand and mechanized removal and controlled burns), tree removal and pruning, grazing activities, exotic vegetation control/removal, hazardous tree work, weed abatement, and algae control in ponds. Permittees may use herbicides and pesticides in accordance with best management practices described in Chapter 6, *Program*

*Participation and Conditions on Covered Activities*, but shall be responsible for ensuring no take of Covered Species occurs as a result of herbicide and pesticide uses.

- Public Facilities - New fire stations, police/sheriff stations and substations, community policing centers, libraries, communications facilities, public maintenance facilities (park maintenance and transportation corporation yards) and public administration centers. Solid waste facilities including transfer stations and recycling centers.
- Non-residential Development in Rural Areas - Telecom facilities and small utility facilities. Solar energy projects in rural areas are covered by the Plan as long as their effects on Covered Species and natural communities are consistent with the effects evaluation in Chapter 4, *Effects of Covered Activities*. Requires approval from the County.
- Other Rural Uses - Other rural uses, consistent with the local general plan and zoning ordinances of Placer County or the City of Lincoln, that are similar in nature to the uses listed above. Such proposed uses must share characteristics in common with the uses listed above and are not of greater intensity or density or generate more environmental effects.

These general plans, specific plans, and implementing zoning may be changed over the course of the NCCP Permit to allow changes in allowed land use type in A2, Valley Conservation and Rural Development, so long as the following terms are met:

- The land use remains rural or agricultural or compatible with rural or agricultural general plan designations
- Land use intensity is not increased
- Residential density is not increased

Activities that do not meet the criteria listed above are not prohibited by the Plan, but they are specifically not covered by the Plan. Project proponents who seek approvals or entitlements inconsistent with the above criteria cannot receive take coverage under the Plan and must apply for take authorization directly from the relevant state or federal agencies.

### **Foothills Potential Future Growth Area (A3)**

This category includes all ground- or habitat-disturbing projects and activities that occur in A3, Foothills PFG (see Figure 2-4). The 78,897 acres of the Foothills PFG comprise the I-80 corridor and the communities of Granite Bay, Penryn, Loomis, and Newcastle; the unincorporated area around the city of Auburn; and rural-residential lands east of Rocklin and Lincoln. The Foothills PFG boundary extends to the Placer/El Dorado county line; hence, area tabulations include 3,820 acres of Folsom Reservoir in which no Covered Activities take place.

Future growth in the Foothills is expected to be lower in magnitude and density than Valley future growth. There will be portions of the I-80 corridor and the outlying areas around Auburn and along SR 49 that will develop at urban densities with urban land use. However, most of the Foothills PFG outside the urban core is zoned for very low-density, rural-residential and agricultural development. It is expected that most of the land area subject to future growth will be rural residential (i.e., a density of one dwelling unit per acre to one dwelling unit per 10 acres). Acquisition of reserve lands and conservation activities may occur in the Foothills PFG, primarily in the Stream System to benefit covered fish (see Section 2.6.6, *In-Stream Activities*).

Urban use activities that may occur in the Foothills PFG are summarized in Table 2-6. In addition to these urban and suburban activities, Covered Activities include ongoing rural and agricultural uses, as summarized in Table 2-7, and public agency programs described in Section 2.6.4, *Foothills Conservation and Rural Development (A4)*, summarized in Table 2-8.

The categories of public agency programs consistent with rural and agricultural general plan designations listed in Table 2-8 include:

- Water Supply Facilities - County, PCWA, and City of Lincoln water supply and conveyance facilities and appurtenances to meet the needs of residential, commercial, office/ professional public/quasi-public, and industrial uses.
- Stormwater Management Facilities - Storm water conveyance systems, low-impact development facilities, nonpoint source reduction, detention/retention facilities, outfall structures, and other drainage improvements.
- Wastewater Management Facilities - Sewage-treatment plants, sanitary sewer systems and rehabilitation, force main and effluent line construction and maintenance, effluent discharge and reclaimed water line installation and maintenance, and pump station construction.
- Solid Waste Management Facilities - Landfills, or transfer stations, material recovery facilities, small-scale energy production facilities (i.e., landfill gas utilization), and recycling centers.
- Public and Private Utilities - Transmission lines, telecommunications lines, and gas lines subject to authority of Permittees. *Note: actions by Pacific Gas & Electric Company, Sacramento Municipal Utilities District, and Northern California Power Agency that are not directly subject to the authority of Permittees will not be covered under the NCCP Permit.*

Current plans that apply to the Foothills include the following:

- Granite Bay Community Plan
- Horseshoe Bar/Penryn Community Plan
- Ophir General Plan
- Auburn/Bowman Community Plan
- Bickford Ranch Specific Plan
- Placer County General Plan

Additional area plans, community plans, specific plans, and updates to comprehensive general plans will be developed over the course of the Plan. Activities in the Foothills PFG are based on designations in the Placer County General Plan and Community Plans. The general plan, specific plan, and implementing zoning may be changed over the course of the NCCP Permit to allow the following in Foothills PFG (A3):

- Changes in allowed land use type
- Increased land use intensity
- Increased residential density

#### **Foothills Conservation and Rural Development Area (A4)**

This category includes all ground- or habitat-disturbing projects and activities that occur in the Foothills RAA and EXR, collectively termed Foothills Conservation and Rural Development (A4) (see Figure 2-4).

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This 30,237-acre area is north of the Foothills PFG and generally north and east of the intersection of Wise and Gladding Roads; it extends to an area north and west of the intersection of Hubbard and Bell Roads. The Plan boundary extends to the Placer/Nevada county line; hence, area tabulations include 837 acres of Camp Far West Reservoir.

Most of the area consists of large parcels in woodland and rangeland and is currently zoned for large-parcel minimums. The category includes rural-residential uses and those agricultural activities that are subject to approval by the County. The Foothills Conservation and Rural Development area is where most of the Plan conservation objectives for the Foothills will be implemented; PCA acquisition and management of reserve lands in the RAA is a Covered Activity described in Section 2.6.6, *In-Stream Activities*.

Covered rural development activities, including those within the Foothills Conservation and Rural Development category, are summarized in Table 2-7. Public agency programs are summarized in Table 2-8, as they are covered in the Foothills Conservation and Rural Development area.

Covered rural development activities are based on designations in the Placer County General Plan. The general plan and implementing zoning may be changed over the course of the NCCP Permit to allow changes in allowed land use type in Foothills Conservation and Rural Development (A4) (see Figure 2-4), so long as the following terms are met:

- The land remains in rural or agricultural use or is compatible with rural or agricultural general plan designations
- Land use intensity is not increased
- Residential density is not increased

Activities that do not meet the criteria listed above are not prohibited by the Plan, but they are specifically not covered by the Plan. Project proponents who seek approvals or entitlements inconsistent with the above criteria cannot receive take coverage under the Plan and must apply for take authorization directly from the relevant state or federal agencies.

### **Regional Public Programs**

Regional public programs provide and sustain the backbone infrastructure that supports public services and development within the Plan Area. Regional public programs involve O&M of existing facilities and construction and O&M for new facilities. These important public projects will serve the existing and future county and city residents during the NCCP Permit term. The programs are typically funded through a variety of sources, and public projects are frequently listed as capital improvement programs in adopted plans or programs. Projects could be carried out by a public agency/utility district or private developer on behalf of a public agency/utility district.

All regional public programs in Plan Area A are covered under the Plan. Specific activities/projects in Permittee Activity in Non-participating City Jurisdiction (B1) and PCWA Zone 1 O&M (B2) are covered, as noted below. Regional public programs are divided into six categories by public facility provider such that similar activities are grouped together to guide the effects analysis in Chapter 4, *Effects of Covered Activities*:

- Transportation Programs (see Section 2.6.5.1)
- Wastewater Programs (see Section 2.6.5.2)
- Water Supply Programs (surface and groundwater) (see Section 2.6.5.3)
- Solid Waste Management Facility Programs (see Section 2.6.5.4)
- Public Recreation-serving Activities (see Section 2.6.5.5)
- Utility Line Construction and Facility Maintenance (see Section 2.6.5.6)

All activities will follow the BMPs and avoidance/minimization measures described in Chapter 6, *Program Participation and Conditions on Covered Activities*.

### **In-Stream Activities**

In-stream activities are those occurring within streams, typically identified by the top of the bank or the outer edge of the riparian canopy, whichever is more landward. This category addresses projects that occur within streams and may result in effects on a stream, reservoir, or on-stream ponds. This category includes O&M activities in the stream channel, along the streambank, and on adjacent lands at top-of-bank within the riparian corridor. Covered in-stream activities may occur anywhere within Plan Area A.

In-stream activities that are covered under this Plan include the following:

- Urban and rural development and public program activities described above under Sections 2.6.1, *Valley Potential Future Growth (A1)*, to 2.6.5, *Regional Public Programs*, that overlap with the Stream System and the adjacent riparian corridor, including transportation, water supply, wastewater management, and stormwater management.
- Bridge construction, replacement, and repair, including vehicular, train, and pedestrian bridges (see discussion in following section).
- Flood control and stormwater management, including water retention/detention facilities construction, streambed and channel debris and vegetative control and removal, channel lining of canals, canal realignment, culvert replacement, maintenance of access roads, beaver dam removal, stormwater conveyance facilities and outfall structures, erosion/sediment control, bank stabilization, and floodplain enhancement (see discussion in following section).
- Maintenance of existing flood protection and stormwater facilities such as drainage improvements, existing dams, armored creeks, bypass channels, and stormwater ponds. Maintenance includes trail repair, trash removal, installation of fences, accumulated sediment removal (primarily in reservoirs), road, culvert, and minor bridge repair.
- Natural resource protection such as bank stabilization projects, restoration to reduce erosion, and fish passage enhancements.
- Erosion control projects or storm damage prevention projects that do not create new permanent structures or hardscape on the creek bank or channel. This category includes temporary flood-fighting activities to prevent storm damage (e.g., temporary flood fighting would include sandbagging and earth-fill levees).
- Vegetation management for exotic species removal and native vegetation plantings, including the use of livestock grazing and prescribed burns.
- Reservoir fluctuations including drawdown and filling for maintenance or operational purposes (i.e., not associated with a capital project).
- In-stream gauge station monitoring (installation and maintenance).

- O&M of water system facilities that are located in-stream.
- Implementation of Resource Management Plans.
- Water utility/water supply O&M activities associated with habitat enhancement and restoration that will be conducted inside and outside the Reserve System are identified in Section 2.6.7, *Conservation Programs*.
- Implementation of the Riverine and Riparian Conservation and Management Strategies (Chapter 5, *Conservation Strategy*), including cleaning/removing sediment from gravel beds and augmenting gravel to streambeds, among other in-stream conservation activities.

### Bridge Construction and Replacement/Rehabilitation

The City of Lincoln and Placer County operate and maintain bridges within the Plan Area and have permit authority over privately constructed and maintained stream crossings. The existing distribution of known stream crossings is shown on Figure 2-10.

The lifespan of a typical bridge is approximately 50 years. Most of the bridges within the Plan Area will be replaced or rehabilitated during the NCCP Permit term. Similarly, as development within rural and urban areas progresses, new bridges will need to be constructed. It is estimated that there will be construction of up to 75 new bridges over the 50-year permit term. New and rehabilitated bridges will be designed and constructed consistent with federal and state guidelines. Bridge construction and replacement/rehabilitation activities covered by the Plan may occur anywhere within Plan Area A and Permittee Activity in Non-Participating City Jurisdiction (B1).

New construction, repair, and replacement, including expansion, of all existing bridges conducted by Permittees within Plan Area A and Plan Area B1 are Covered Activities. Figure 2-10 shows the location of several planned major bridge projects. Other, yet-unplanned stream crossings will be associated with future growth, mainly in the PFG where the density of stream crossings will increase, similar to the density of crossings in the built-up portion of the Non-Participating Cities, as shown on Figure 2-10.

Where free-span bridges are not feasible, bridges will be built on pile foundation, cast-in-drilled-hole pile, or spread footing foundations. Excavation for foundations may be required. Where multiple span bridges are necessary, consideration will be made to locate the piers and foundations outside of the low-flow stream channel or away from other resources when feasible. Bridge repair and rehabilitation may be similar to bridge replacement in scope, often requiring roadway widening, new deck support structures, and seismic retrofitting.

Additional detail on estimated extent of bridge and culvert work is provided in Chapter 4, *Effects of Covered Activities*.

### Flood Protection Projects

The Placer County Flood Control and Water Conservation District was established in 1984 by the state legislature as a special district, separate from County government, to address flood control issues arising with growth. The district boundaries are the same as Placer County boundaries. Covered flood protection project activities may occur anywhere within Plan Area A and Permittee Activity in Non-participating City Jurisdiction (B1). It is expected that the District would become a Participating Special

Entity, as described in Section 8.9.4, *Take Authorization for Participating Special Entities*, and the following activities would be covered under the Plan.

The District has several projects planned to address flood protection. These projects have been identified through various programs that provide different funding mechanisms and guiding principles of how projects will be planned and designed. Table 2-9D provides a list of flood control projects, including flood protection capital projects, anticipated to occur within the Plan permit term. Those projects for which project descriptions are currently available are described below. For other projects, location is provided. It is assumed that these projects will contain the same design elements as those for which a project description has been developed. The flood control and water conservation program projects identified in Table 2-9D include:

- Scilacci Farms Regional Retention Project - Stormwater retention project with wetlands and agricultural conservation easements located north and south of Raccoon Creek immediately east of the Sutter county line. Refer to section 2.6.6.2.1, *Scilacci Farms*, for additional project details.
- Regional Retention Projects within Cross Canal Watershed - Stormwater retention projects with wetlands and agricultural conservation easements within floodplain areas of streams within the general Cross Canal Watershed, including Pleasant Grove Creek, Curry Creek, Auburn Ravine, Markham Ravine, and Raccoon Creek.
- Dry Creek Watershed Flood Control Plan – Regional Detention Projects - Both on- and off-channel stormwater detention projects located throughout the Dry Creek Watershed. Refer to Section 2.6.6.2.3, *Dry Creek Watershed Flood Control Plan*, for additional project details.
- Dry Creek Watershed Flood Control Plan – Regional Floodplain Restoration Projects - Floodplain restoration/reconnection projects located throughout the Dry Creek Watershed. Refer to section 2.6.6.2.3, *Dry Creek Watershed Flood Control Plan*, for additional project details.
- Dry Creek Watershed Flood Control Plan – Bridge/Culvert Replacement Projects - Bridge and culvert improvement projects throughout the Dry Creek Watershed.
- Dry Creek Watershed Flood Control Plan – Conveyance and Channel Improvement Projects - Improvements to underground conduits, artificial channels, and natural channels throughout the Dry Creek Watershed.
- ALERT Flood Warning System of Precipitation and Stream Level Gages - Installation, monitoring, and maintenance of remote stream data sensors throughout Dry Creek and Cross Canal Watersheds.
- Dry Creek Watershed Stream Channel Maintenance Program - Stream channel clearing and conveyance maintenance activities throughout flood-prone locations within Dry Creek Watershed.
- Operations, Monitoring and Maintenance activities at the District’s Miners Ravine Off-channel Detention Basin Facility - Routine annual maintenance and monitoring as well as non-routine maintenance and operation activities at the District’s facility located in Roseville, California.

Flood Control O&M: Flood control O&M activities that occur throughout the Plan Area streams include, but are not limited to, installation, monitoring, and maintenance of remote stream data sensors; stream channel clearing; vegetation and debris removal; and conveyance maintenance activities.

Flood Control Capital Improvements: Many of the flood protection capital improvement projects incorporate design elements that provide on-site avoidance, minimization, and mitigation for both in-stream and riparian habitat. Enhancement and creation of riparian habitat is coupled with removal of invasive species and planting of native species. In-stream design elements could include fish passage

improvement through the removal of fish barriers, placement of fish ladders, and other in-stream habitat enhancements. Additional design elements may be incorporated to protect instream water quality by reducing erosion, sedimentation, and turbidity as well as removing unauthorized storm drain outfalls. The plans described below have been prepared to prioritize projects within the watersheds.

### Streamside Trails and Crossings

The City of Lincoln and Placer County, as well as other non-profit entities (i.e., Placer Land Trust), lead or participate in programs to construct passive recreational trails in parks, as identified above (Section 2.6.5.5, *Public Recreation-serving Activities*). New trails are sited outside of the in-stream area to the extent possible to avoid effects on riparian vegetation and streams. However, some trails will need to cross streams and will require installation of bridges or other types of crossings. Trails may also be implemented as a component of other types of projects such as flood protection projects or levee reconstruction. In such cases, trails will generally be sited along maintenance roads or in other disturbed areas and will not result in additional effects beyond those attributed to the main project. Streamside trail projects will be a Covered Activity under the Plan. For more details on trail projects as a Covered Activity, please see Section 2.6.5.5, *Public Recreation-serving Activities*.

### Conservation Programs

In addition to the projects described above, the Plan provides coverage for activities associated with implementation of the conservation strategy. The management activities that will be used on the Reserve System are described in detail in Chapter 5, *Conservation Strategy*. Implementation of the conservation strategy may occur anywhere in the Plan Area, but most of these activities will take place within the Reserve System assembled in Plan Area A. Some conservation activities may also occur outside of the Reserve System, specifically as associated with the in-stream conservation measures discussed above and in Plan Area B Big Gun Conservation Bank (B5), for California red-legged frog (see Figure 2-8).

### Habitat Enhancement, Restoration, Creation, Translocation, and Reserve Management

This category includes all measures, including habitat restoration and creation, required by the Plan or other measures that might be necessary to achieve Plan biological goals and objectives. The Plan's conservation strategy sets forth requirements for habitat enhancement, restoration, and creation. Enhancement and management actions that will be used within the Reserve System are described in detail in Chapter 5, *Conservation Strategy*.

Restoration and creation are an important component of the conservation strategy. Restoring and creating new wetlands will permanently affect existing, pre-restoration/creation habitat by converting that habitat (generally agricultural land, grasslands, or disturbed land cover) to wetlands and other natural communities (e.g., valley oak woodland). Habitat restoration and creation activities will generally be disruptive only in the short term. These activities may involve soil disturbance, removal of undesirable plants, and limited grading. All habitat restoration and creation are expected to result in a net long-term benefit for the Covered Species and natural communities. However, these activities may have temporary or short-term adverse effects and may result in limited take of Covered Species (see Chapter 4, *Effects of Covered Activities*). All habitat enhancement, restoration, and creation activities

conducted within the Reserve System that are consistent with the requirements of the Plan are covered by the NCCP Permit. Habitat enhancement, restoration, and creation activities may also be conducted outside the Reserve System. If such activities occur and are consistent with this Plan, they are covered by the NCCP Permit. Examples of such activities include restoration projects conducted as mitigation that require additional coverage beyond the self-mitigating aspects inherent to most restoration projects. Examples of habitat enhancement, restoration, creation, and reserve management activities include, but are not limited to, the following:

- Management measures identified in Chapter 5, *Conservation Strategy*, intended to maintain, enhance, restore, and create habitat for Covered Species (additional details provided below).
- Vegetation management, including management of invasive plants, using livestock grazing, mowing, manual labor, and/or prescribed burning. Pesticide use is permitted under the Plan only to achieve biological goals and objectives (e.g., exotic plant or exotic animal control), in accordance with label instructions, and in compliance with state and local laws. Pesticide use is proposed for coverage only under the Natural Community Conservation Planning Act, not the ESA. Implementation of integrated pest management programs established by the local jurisdictions is only a Covered Activity if pesticides are used to achieve exotic plant or exotic animal control. Any pesticide use must comply with USEPA's Pesticides: Endangered Species Protection Program.
- Collection of cysts from covered branchiopods (i.e., Conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp) for depositing in a cyst bank with Wildlife Agency approval.
- Relocation of Covered Species from affected sites and within the Reserve System where effects are unavoidable and relocation has a high likelihood of success. This is expected to occur in very limited circumstances subject to Wildlife Agency review and approval, except for collection of seeds and cysts of covered vernal pool plants and branchiopods, respectively (see above bullet points). See Chapter 6, *Program Participation and Conditions on Covered Activities*, for details.
- Demolition or removal of structures, roads, or man-made livestock ponds to increase public safety or to restore habitat.
- Control of introduced predators (e.g., feral cats and dogs, pigs, non-native fish, bullfrogs).
- Management activities for burrowing owls such as population augmentation, and owl relocation for conservation purposes.
- Surveys and monitoring for mitigation and restoration/habitat enhancement projects.
- Use of motorized vehicles for patrolling, maintenance, and resource management activities in the Reserve System.
- Use of mechanized equipment for construction, maintenance, and resource management projects in the Reserve System.
- Installation of wells, canals, irrigation lines, and other water conveyance facilities, the water from which will be used to fill stock ponds, troughs, and other storage facilities for cattle.
- Travel through the Reserve System by habitat managers or Wildlife Agency personnel. Off-trail travel will be kept to the minimum amount necessary to perform maintenance, management, or patrol activities.
- Fire management including prescribed burning, mowing, and fuel-break establishment and maintenance (see Section 2.6.7.1.3, *Fuel Management*).
- Collection and processing (e.g., chipping for transportation, trimming, and bucking of logs) of waste biomass materials that result from fuel management activities.
- Hazardous materials remediation, such as appropriate closure of underground storage tanks, soil remediation, cleanup of illegal dumping, etc.

- Repair of existing facilities damaged by floods, landslide, or fire.
- Restoration and enhancement projects in vernal pool grasslands, streams, riparian areas, wetlands, and uplands.
- Fish passage enhancements including removal of fish barriers, such as low-flow crossings and development of fish screens.

### Monitoring and Research

Biologists will need to conduct surveys for all Covered Species, natural communities, and other resources within the Reserve System on a regular basis for monitoring, research, and adaptive management purposes. These surveys may require physical capture and inspection of specimens to determine, identify, and mark individuals, or measure physical features, all of which may be considered take under the ESA or CESA. Surveys for Covered Species will also be conducted on private land being considered for acquisition for the Plan. Although these surveys are not expected to require as much handling of individuals, take may still occur. Surveys for all Covered Species will be conducted by qualified biologists. All such survey activity consistent with this Plan is covered by the ESA and NCCP permits.

Research conducted by biologists on Plan reserves in support of the Plan is covered by the NCCP Permit as long as the research projects have negligible effects on populations of Covered Species. Research on Plan reserves unrelated to the Plan is not covered by the NCCP Permit because the nature and effects of these future research projects cannot be predicted at this time and these researchers will not be bound by the terms of the NCCP Permit. Such researchers would be granted access to Reserve System properties on a case-by-case basis and such access will be conditioned on compliance with the terms of this Plan.

### Fuel Management

Each Reserve System unit will have a fire management component included within the reserve management plans (see Section 5.3.2.2.1, *Content of Reserve Unit Management Plans*). The fire management component will describe site-specific conditions and actions required to (1) reduce existing fuel loads, (2) re-introduce fire as a natural process of the ecosystem (if permissible), (3) minimize environmental effects and protect sensitive resources, and (4) enhance and/or restore natural community characteristics.

Preservation of reserve lands in perpetuity will require that they be managed to reduce their susceptibility to catastrophic wildfire as well as to meet the ecological objectives of this Plan. A registered professional forester and ecologist prepared fuel management guidelines for the Plan. Appendix F, *Fuel Management*, outlines several policies, procedures, and prescriptions for managing wildfire risk in conservation reserves through treatment of fuels. Specifically, it recommends that each reserve area have a fire management component included within the required management plans.

Fuel treatments will be aimed at preventing or at least impairing the spread of a fire and reducing fire severity. Fuel treatment zones include property boundaries, public roads, and the interior of reserve parcels. In oak woodlands, shaded fuel breaks may be used along roads, at property boundaries, and within parcels to impair fire spread. Fuel breaks can be used at the periphery of vernal pool grasslands.

Fuel treatments in riparian woodlands should focus on the interface between the upland and riparian vegetation.

Several approaches will be used to reduce fuels. The choice of approach is affected by environmental constraints, costs, and other social and ecological considerations. The highest priority in the Reserve System is to protect natural and semi-natural communities and Covered Species and their habitats. Any fuel treatment must meet this requirement. BMPs will be included in fuel treatments to prevent or minimize impacts on streams, cultural resources, wetlands, soils, wildlife, and Covered Species or other special-status species (see Chapter 6, *Program Participation and Conditions on Covered Activities*). The strategy should emphasize avoidance of effects.

### Recreation

The Plan will develop limited recreation opportunities within the Reserve System according to the requirements in Section 5.3.2.2.1, *Content of Reserve Unit Management Plans*, and Chapter 6, *Program Participation and Conditions on Covered Activities*, Reserve Management Conditions 1 through 3. These activities are expected to be minimal but may include trails and associated infrastructure. The Plan limits future reserves (not including jump-start lands) to 70 miles of trails, with an average width of 6 feet (50 acres). All trails and recreation facilities will be constructed to minimize effects on Covered Species and vegetation communities and in compliance with the guidelines in Section 5.3.2.1, *Reserve Management Plans*).

Recreational uses will only be allowed within the Reserve System if the PCA determines that they are consistent with the biological goals and objectives of the Plan and are consistent with a reserve unit management plan approved by the Wildlife Agencies. Allowed uses will be specified in the reserve unit management plan and may include hiking, non-motorized bicycle riding, walking, horseback riding, fishing and hunting, wildlife observation, photography, and environmental education and interpretation on designated trails at appropriate sites or other similar low-intensity activities.

### Reserve System Infrastructure

This category also includes construction, maintenance, and use of facilities needed to manage the Reserve System including, but not limited to, reserve field offices, maintenance yards, maintenance sheds, workshops, storage space (e.g., for machinery, vehicles) carports, driveways, roads, bridges, fences, gates, wells, stock tanks, stock ponds, and a native plant nursery to support restoration and enhancement projects. All Reserve System management structures will be constructed to minimize effects on Covered Species and vegetation communities and in compliance with the guidelines in Section 5.3.2.1, *Reserve Management Plans*, and conditions on Covered Activities described in Chapter 6, *Program Participation and Conditions on Covered Activities*. Facilities existing at the time of land acquisition will be used whenever feasible.

An emergency is a situation involving disasters, casualties, national defense, or security emergencies and includes response activities that must be taken to prevent imminent loss of human life or property (U.S. Fish and Wildlife Service and National Marine Fisheries Service 1998). The Wildlife Agencies will not obstruct an emergency response decision made by the Permittees when human life is at stake. Responses to changed circumstances within Plan reserves that may affect populations of Covered

Species are covered under this Plan. Foreseeable emergency activities include, but are not limited to, the following:

- Firefighting of small wildfires or structure fires
- Evacuation of injured persons or livestock
- Minor hazardous materials remediation (including remediation and cleanup of illegal dumping prior to acquisition)
- Repair of existing facilities damaged by floods or fire
- Use of motorized vehicles for conducting activities

#### In-stream Conservation Actions

The Plan provides coverage for projects and activities associated with implementation of the conservation strategy. In-stream conservation activities are covered anywhere they may occur in Plan Area A or Plan Area B, Permittee Activity in Non-participating City Jurisdiction (B1); Raccoon Creek Floodplain (B3); or Fish Passage Channel Improvement (B4). Components B3 and B4 are located in Sutter County, just west of Placer County (see Figure 2-6 and Figure 2-7). Raccoon Creek in Placer County and those Sutter County plan components are currently under study to identify the effect of hydrology, water quality, channel geomorphology, and riparian vegetation on salmonids.

Plan in-stream conservation activities may occur on private and public lands outside the Reserve System. As discussed in Chapter 5, *Conservation Strategy*, these actions will require agreements to be reached with landowners to allow the installation and maintenance of the conservation measures. Measures that are implemented outside the Reserve System will occur primarily along stream and riparian areas.

In-stream conservation activities are listed below (see Chapter 5, *Conservation Strategy*, for details). Note that there is overlap between in-stream conservation measures and those that will occur outside of the stream in the surrounding Stream System.

- Stream barrier removal or modification.
- Vegetation management, including mechanical removal of invasive weeds in streams.
- Installation of woody debris or rocks to enhance aquatic habitat in streams.
- Gravel augmentation and gravel cleaning conducted to enhance or restore spawning sites for Covered Species.
- Actions to address invasive animal species or invasive plant species control beyond vegetation management.
- Restoration of in-stream and riparian habitats.
- Surveys and monitoring for mitigation and restoration/habitat enhancement projects.
- Monitoring of Covered Species (i.e., salmonids, California red-legged frog, foothill yellow-legged frog, western pond turtle) and natural communities.
- Landowner outreach and education programs that target landowners along streams. Willing landowners may receive technical assistance from the PCA to reduce erosion and sedimentation into nearby streams.

#### Stream Barrier Modification Projects

The Plan's conservation strategy provides for removal of fish passage barriers (Table 3-4) and other projects that improve fish passage. These projects are based on recommendations from the Anadromous Fish Screening and Passage Opportunities in Western Placer County and Southern Sutter County report (Bailey 2005) and will include removal of the following passage impediments:

- Hemphill Dam, including the construction of a fish ladder and/or removal of the dam and restoration of the riparian zone (NID owned)
- Cottonwood Dam, including riparian restoration (privately owned)
- Culvert at Doty Ravine on Garden Bar Road (County owned)
- Nelson Lane Dam
- Raccoon Creek and Waltz Road dam near the Sutter county line

The removal or modification of these passage impediments will require the cooperation of private entities or public agencies that are not currently Permittees of the Plan. In the event these facilities cannot be modified or removed because they are not under the control of the Permittees, alternative fish passage improvements will be recommended to the Wildlife Agencies for Doty Ravine, Raccoon Creek, Auburn Ravine, or salmonid streams in the Dry Creek watershed.

Other dams and diversion structures that could be removed or modified include the Lincoln Ranch Duck Club Dam, Copin Dam, Davis Dam, Tom Glenn Dam, and Aitken Ranch Dam. The PCA may work with the NID to improve fish passage at its facilities, including the NID Doty Ravine south diversion structure, Camp Far West Canal, and Goldhill Dam.

#### In-channel Habitat Improvement

When opportunities exist, the PCA will remove or modify in-channel features within, and outside of, the Reserve System to restore in-stream habitat. Potential restoration measures include removal of fish passage barriers (discussed above); removal of features such as riprap, dikes, and levees and the setting back and/or stabilization of creek banks; and the re-establishment of historical stream morphology.

In-channel conservation measures may include the removal of anthropogenic features (e.g., concrete, earthen, or otherwise engineered channels) as well as measures that modify specific elements of in-channel habitat. Methods to improve in-channel habitat include removing non-native vegetation and revegetating with native plants to influence physical processes; installing large woody debris and other in-stream structural elements, such as rocks and boulders, to improve channel complexity and to promote woody debris recruitment and enhance rearing habitat; and augmenting gravel within potential spawning grounds.

Channel restoration may entail reconstruction of a channel or incremental process restoration (installation of a natural structural feature to induce change in a channel). Channel restoration guidelines and designs are presented in Flosi et al. (1998) and Circuit Rider Productions (2004). Channel restoration can also be used to restore bank stability and reduce bank erosion, thereby improving aquatic habitat and water quality.

Together, these enhancement and restoration techniques can serve to slow the movement of floodwaters, allow the deposition of sediment to improve channel and bank formation processes,

reduce sediment loading in river and stream systems, and improve habitat for Covered Species, including the restoration of complex rearing habitat for covered fish species.

The reduction of fine sediment input to streams is a high priority in Auburn Ravine, Raccoon Creek, Doty Ravine, Miners Ravine, Secret Ravine, and the main stem of Dry Creek and a medium priority in Bear River, Pleasant Grove Creek, and Curry Creek (County of Placer 2002; ECORP 2003; Foothill Associates 2006). The PCA will focus gravel cleaning and replenishment in high- and medium-priority streams. The PCA will identify specific stream reaches with degraded spawning habitat where cleaning or replenishment of gravels is the only feasible means to enhance habitat. These measures are not anticipated to occur regularly under the Plan and would only be used as a temporary action to maintain habitat until the reach can be restored.

Gravel cleaning can be used to enhance and restore gravel beds that are already impaired due to excess fine sediment load. Gravel replenishment can be used in streams deficient in spawning gravel due to dams or other artificial structures that prevent gravel recruitment or transport. The use of gravel cleaning or replenishment measures will likely result in additional maintenance requirements, because natural processes will not maintain post-cleaning conditions.

Gravel cleaning and replenishment can be effective where the cause and source of excessive fines, including upland sources such as unpaved roads and land grading activities, have been controlled or remedied.

The PCA will employ invasive animal control measures for in-stream invasive species (e.g., carp, bullhead, bullfrog) on an as-needed basis. The need to control invasive species and methods to be used will be site-specific and evaluated within a monitoring and adaptive management framework. The PCA will develop an Invasive Species Control Plan for the Reserve System, and each reserve management plan will include a section on management of invasive plant and animal species. Methods of invasive control will depend on site-specific conditions, including type of waterway and time of year, and will be done in close coordination with fish and wildlife agencies to avoid harm to non-target species.

#### Riparian Restoration

The PCA will restore 330 acres of riparian habitat and an estimated additional 876 acres of riparian habitat to reestablish, reconnect, and expand existing riparian woodland; improve habitat for and contribute to the recovery of Covered Species that use riparian habitat; slow the movement of floodwaters; allow the deposition of sediment to improve channel and bank formation processes; and reduce sediment loading in river and stream systems. Details of the site selection process and methods are presented in Section 5.3.1.5.4, *Riverine and Riparian Complex Natural Communities*.

#### Non-PCCP Placer County Conservation Programs

Placer County administers ongoing conservation and resource management programs (e.g., management of wildfire fuel) that are separate from but complementary to the Plan (Section 2.6.7.3.1, *Placer Legacy Program and Resource Management Plans*, and Section 2.6.7.3.2, *Community Wildfire Protection Plan*). The actions conducted by Placer County to implement the Placer Legacy Program and the Auburn Ravine/Raccoon Creek ERP, Dry Creek CRMP, Pleasant Grove/Curry Creek ERP, and Dry

Creek Greenway Vision Plan are similar to many of those that will be conducted by the PCA to implement the Plan's conservation strategy (see Section 2.4, *Permittees, Plans, Policies, and Programs*, for description of CRMPs). These actions will occur primarily outside the Reserve System.

### Resource Management Plans

This Plan integrates three watershed plans, including the Dry Creek CRMP, the Auburn Ravine/Markham Ravine/Raccoon Creek ERP, and the Pleasant Grove/Curry Creek ERP, into the conservation strategy. These watershed management plans were designed to help control pollution, manage stormwater, and restore and enhance Stream System habitats and uplands that surround them. The 2002 Auburn Ravine/Markham Ravine/Raccoon Creek ERP, the 2004 Pleasant Grove/Curry Creek ERP, and the 2003 Dry Creek CRMP are comprehensive, ecosystem-based plans for the restoration and enhancement of riparian and in-stream habitats in western Placer County watersheds. These plans were created in coordination with public and private stakeholders, including Placer County, water districts, non-profit conservation interests, agencies, and landowners. These plans provide guidance for riparian and stream restoration and enhancement actions outlined in the Placer Legacy Program (Placer County 2012).

The PCA will use these restoration and resource management plans to help guide stream and riparian acquisition, enhancement, and restoration actions. The Placer Legacy Program's restoration and enhancement activities implemented by Placer County will occur on lands within and outside of the Reserve System. Although these plans pre-date the preparation of a conservation strategy for the Plan, they nevertheless provide a watershed-level focus that is valuable; they represent stakeholder interests that are consistent with the spirit of state and federal guidance on the preparation of HCPs and NCCPs. As such, these plans have informed the development of the Plan's conservation strategy (Chapter 5, *Conservation Strategy*) and monitoring and adaptive management program (Chapter 7, *Monitoring and Adaptive Management Program*) and will be used by the PCA to help guide Plan acquisition, enhancement, and restoration actions for riverine and riparian systems. In no case will these plans supersede the conservation strategy of the Plan. Their implementation is intended to both inform and be covered by the Plan and will supplement the conservation actions carried out by this Plan.

The primary goal of these resource management plans is to improve riparian and aquatic habitat quality and connectivity for native biota. The main objectives of these plans are to protect, restore, and enhance riparian habitat; improve salmonid spawning and rearing habitat; restore the natural hydrography and morphology when and where possible; remove and/or modify in-stream barriers to salmonid migration; and improve water quality.

Those projects that are implemented as a result of the Auburn Ravine/Markham Ravine/Raccoon Creek ERP, Pleasant Grove/Curry Creek ERP, or the Dry Creek CRMP planning process will be covered by the Plan. Construction or restoration activities associated with implementation of these plans may have temporary effects, but overall these projects will provide a net benefit to Covered Species and natural and semi-natural communities by improving ecosystem integrity, resiliency, and connectivity. Examples of the general types of projects that are expected to be implemented are listed in Section 2.6.7.4, *Resource Management Plans*.

Pesticide, herbicide and rodenticide uses are not activities permitted by USFWS and will not be covered under this Plan for the federal permits. All applicable injunctions stipulated during Plan implementation

(i.e., 2006 California red-legged frog stipulated injunction) will be adhered to until formal consultation between USEPA and USFWS regarding the effects of pesticides on listed species is concluded.

Project-specific identification as a Covered Activity, either in Chapter 2, Covered Activities, or through a future determination by a Permittee, does not imply or grant entitlement for implementation. Project applicants are required to gain other project approvals from local jurisdictions and other regulatory agencies as necessary.

## **5.2 Covered Species**

Table 1-1 of the Plan lists the fourteen (14) Covered Species and are as follows:

### **List of 14 Covered Species**

#### **Fish**

Central Valley steelhead – Distinct Population Segment (Federal Threatened)

Central Valley fall/late fall-run Chinook salmon Evolutionarily Significant Unit (State Species of Special Concern, Federal Threatened)

#### **Reptiles**

Giant garter snake (State Threatened, Federal Threatened)

Western pond turtle (State Species of Special Concern)

#### **Amphibians**

Foothill yellow-legged frog – Northern Sierra clade (State Threatened)

California red-legged frog (State Species of Special Concern, Federal Threatened)

#### **Birds**

Swainson's hawk (State Threatened)

California black rail (State Fully Protected, State Threatened)

Western burrowing owl (State Species of Special Concern)

Tricolored blackbird (State Threatened)

#### **Invertebrates**

Valley elderberry longhorn beetle (Federal Threatened)

Western Placer County HCP/NCCP

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Conservancy fairy shrimp (Federal Endangered)

Vernal pool fairy shrimp (Federal Threatened)

Vernal pool tadpole shrimp (Federal Endangered)

Species that can be taken upon NCCP Permit issuance and signing of the IA by all Permittees

The Applicants are requesting take coverage under the NCCP Permit for a total of fourteen species (“Covered Species”). The Plan proposes that the maximum extent of take be set at the level of communities and constituent habitats (Tables 4-11 and 4-12), except for salmonids. The Plan proposes that the maximum extent of take of covered salmonids be based on effects on salmonid habitat, as described in Section 4.4.6, *In-Stream Programs*, and shown in Tables 4-7A and 4-7B. Upon issuance of this NCCP Permit and signing of the IA by all Permittees, the NCCP Permit allows incidental take of modeled habitat and individuals of the following twelve Covered Species:

- Central Valley steelhead – Distinct Population Segment
- Central Valley fall/late fall-run Chinook salmon Evolutionarily Significant Unit
- Giant garter snake
- Western pond turtle
- Foothill yellow-legged frog – Northern Sierra clade
- California red-legged frog
- Swainson's hawk
- Western burrowing owl
- Tricolored blackbird
- Valley elderberry longhorn beetle
- Vernal pool fairy shrimp
- Vernal pool tadpole shrimp

Upon issuance of this NCCP Permit and signing of the IA by all the Permittees, the NCCP Permit allows incidental take with limitations for the following two Covered Species:

- California black rail - Five occupied California black rail sites will be protected, and up to two sites occupied by California black rail may be taken, provided that at least two protected and/or restored sites are occupied by California black rail prior to take of the occupied sites. Take of occupied sites cannot exceed the number of protected and/or restored sites that are occupied; therefore, at least one protected or restored site must be occupied prior to take of the first occurrence, and at least two protected and/or restored sites must be occupied prior to take of the second occurrence. Take may occur before the Year 20 milestone to protect three occurrences, as long as protected and/or restored sites are occupied and the number of occupied sites taken does not exceed the number of protected and/or restored sites occupied. After the required five protected and/or restored sites have been demonstrated to be occupied, a third and fourth occupied site may be taken, provided that three additional protected and/or restored sites are occupied prior to take of each subsequent occupied site. In total, no more than four occupied sites may be taken (provided that at least 11 protected and/or restored

sites will be occupied). Take of additional occurrences at a 3:1 ratio of protected to taken may occur prior to Year 45, if the milestone to protect five occurrences is met before Year 45 (Section 5.3.1.6.2, *California Black Rail*, CM1 BLRA-1).

- Conservancy fairy shrimp - The PCA and/or Permittees will protect two Conservancy fairy shrimp occurrences (in addition to the occurrence already protected at the Mariner Conservation Bank) before an occurrence may receive take coverage. Take of additional occurrences would require a 3:1 protection (three protected occurrences for each occurrence taken) (Section 5.3.1.6.10, *Vernal Pool Branchiopods*, CM1 VPB-2).

This NCCP Permit allows for continuing incidental take of the currently unlisted Covered Species in the event that they become listed in the future.

### **5.3 Limitations**

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

### **6.0 AMENDMENTS**

This NCCP Permit may be amended in a manner consistent with the provisions in Section 10.5.3.2 of the Plan and Section 13.4 of the IA.

### **7.0 SUSPENSION AND TERMINATION**

This NCCP Permit is subject to suspension, revocation, or termination by action of the Director of CDFW in accordance with the terms of Sections 14.3 through 14.6 of the IA.

Under these provisions, should Permittees request early termination of this NCCP Permit, Permittees will be required to fulfill the mitigation obligations for all authorized development approved, authorized, or carried out prior to termination. Mitigation obligations will be in accordance with the Plan and the IA for any permitted activities that have been approved, authorized, or carried out.

CDFW may suspend or revoke this NCCP Permit as a result of a violation of this NCCP Permit and/or pursuant to any applicable State laws or regulations. If this NCCP Permit is revoked or suspended, Permittees shall remain obligated to fulfill all of its responsibilities under this NCCP Permit for any permitted activity approved, authorized, or carried out by Permittees between the effective date of this NCCP Permit and date of NCCP Permit suspension or revocation.

**8.0 DURATION**

This NCCP Permit shall remain effective for fifty (50) years from the effective date below, unless suspended, terminated, or extended by earlier action of the Director of CDFW.

Approved by:

**/s/ Chad Dibble** \_\_\_\_\_

Date: 11/23/2020 \_\_\_\_\_

Chad Dibble, Deputy Director  
Ecosystem Conservation Division  
California Department of Fish and Wildlife

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