

Chapter 1

Introduction

The *Yolo Habitat Conservation Plan/Natural Communities Conservation Plan* (Yolo HCP/NCCP) is a comprehensive, county-wide plan to provide for the conservation of 12 sensitive species and the natural communities and agricultural land on which they depend, as well as a streamlined permitting process to address the effects of a range of future anticipated activities on these 12 species. The Yolo HCP/NCCP refers to the range of future anticipated activities as *covered activities* and the 12 sensitive species covered by this HCP/NCCP as *covered species*. The Yolo HCP/NCCP will improve habitat conservation efforts in Yolo County; encourage sustainable economic activity; and maintain and enhance agricultural production.

The Yolo Habitat Conservancy (Conservancy), which consists of Yolo County and the incorporated cities of Davis, West Sacramento, Winters, and Woodland, developed the Yolo HCP/NCCP. This HCP/NCCP provides the basis for issuance of long-term permits under the Federal Endangered Species Act (FESA) and California Natural Community Conservation Planning Act (NCCPA) that cover an array of public and private activities, including activities that are essential to the ongoing viability of Yolo County's agricultural and urban economies. Specifically, the Yolo HCP/NCCP will provide the Permittees (i.e., Yolo County, the four incorporated cities, and the Conservancy) with incidental take permits from both the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) for the 12 covered species. This action is pursuant to Section 10(a)(1)(B) of the FESA and Section 2835 of the NCCPA chapter of the California Fish and Game Code (Fish & Game Code). The Yolo HCP/NCCP ensures compliance with the FESA, NCCPA, and the California Endangered Species Act (CESA) for covered activities that may affect the covered species. In addition to the Permittees, the Yolo HCP/NCCP permits may cover the activities of other entities through certificates of inclusion, as described further in Chapter 3, *Covered Activities*, and Chapter 7, *Plan Implementation*.

1.1 Purpose and Background

1.1.1 Purpose

The Yolo HCP/NCCP is a comprehensive, county-wide plan that has been designed to meet the following purposes:

- Provide for the conservation of covered species in Yolo County, referred to as the Plan Area, and the natural and seminatural communities upon which they depend, including the agricultural landscape that supports covered species, while accommodating appropriate and compatible economic growth and development consistent with applicable local land use laws and associated general plans.
- Provide a comprehensive means for coordinating and standardizing the mitigation and compensation requirements of the FESA, NCCPA, California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), and other applicable laws and regulations related to covered species and associated natural communities in the Plan Area (Figure 1-1). This will ensure that public and private actions will be governed equally and consistently, thereby reducing delays, expenses, and regulatory duplication.

- Provide a less costly, more efficient project review process that results in greater conservation values than the current project-by-project, species-by-species review and regulatory regime.
- Serve as a platform for coordination and cooperation among various and ongoing conservation planning efforts occurring both within Yolo County and in neighboring jurisdictions.
- Provide a basis for the permits and authorizations necessary to take covered species lawfully that have been listed as threatened or endangered pursuant to the terms of the FESA and/or CESA.
- Provide a process for the issuance of take authorizations for covered species that are not currently listed but may be listed in the future without the imposition of additional mitigation or conservation requirements outside of the HCP/NCCP process.
- Reinforce the role of local government in overseeing local land use planning and decision-making.
- Support agriculture as a critical economic engine and habitat community.
- Streamline and coordinate existing processes for review and permitting of public and private activities that potentially affect covered species.
- Provide clear expectations and regulatory predictability for land users and conservation efforts related to the covered species and associated natural communities within the Plan Area by identifying relevant conservation requirements for ongoing and future activities.

The Yolo HCP/NCCP is intended to meet the requirements for an HCP pursuant to Section 10(a)(2)(A) of the FESA and an NCCP pursuant to the NCCPA. To fulfill this purpose, this HCP/NCCP provides a strategy that includes measures to conserve the 12 covered species in perpetuity and ensure that effects on covered species are minimized and mitigated. To meet NCCPA requirements, the Conservancy developed the Yolo HCP/NCCP to conserve representative natural and seminatural landscapes and maintain the ecological integrity of large habitat blocks, ecosystem function, and biological diversity.

The Yolo HCP/NCCP strikes a balance between natural resource conservation and economic growth in the region. The covered activities encompass existing and future activities associated with buildout of local general plans and other expected economic activities, as described in Chapter 3, *Covered Activities*. This HCP/NCCP provides for the issuance of permits that will authorize take of the listed covered species over a 50-year period, pursuant to the FESA and NCCPA (Section 1.2.3, *Covered Species*). The permits will also provide take authorization for any of the covered species that are not currently listed (i.e., nonlisted covered species) if they become listed during the 50-year permit term. If any of the covered species become de-listed during the permit term, the Conservancy will still be required to conserve the species consistent with the obligations in the Yolo HCP/NCCP.

Background

In 2001, the Permittees rejected a conservation plan that consisted of an HCP only, with no NCCP component, and encompassed only the eastern portion of Yolo County. At that time, the Permittees embarked on an HCP/NCCP that encompassed the entire county. The Conservancy, formerly known as the Yolo County HCP/NCCP Joint Powers Agency, was formed in 2002 by Yolo County and the incorporated cities of Davis, West Sacramento, Winters, and Woodland (with the University of California, Davis as an *ex officio* member) to oversee the development of a regional conservation plan for Yolo County. A first administrative draft of this HCP/NCCP, completed in June 2013, proposed 32 covered species. The Conservancy determined, however, that the conservation commitments in the

first administrative draft were economically infeasible for the Permittees to achieve. Therefore, in late 2013, USFWS and CDFW coordinated closely with the Conservancy to modify the scope of the Yolo HCP/NCCP by decreasing the number of covered species and refining the conservation strategy.

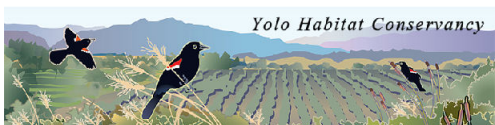
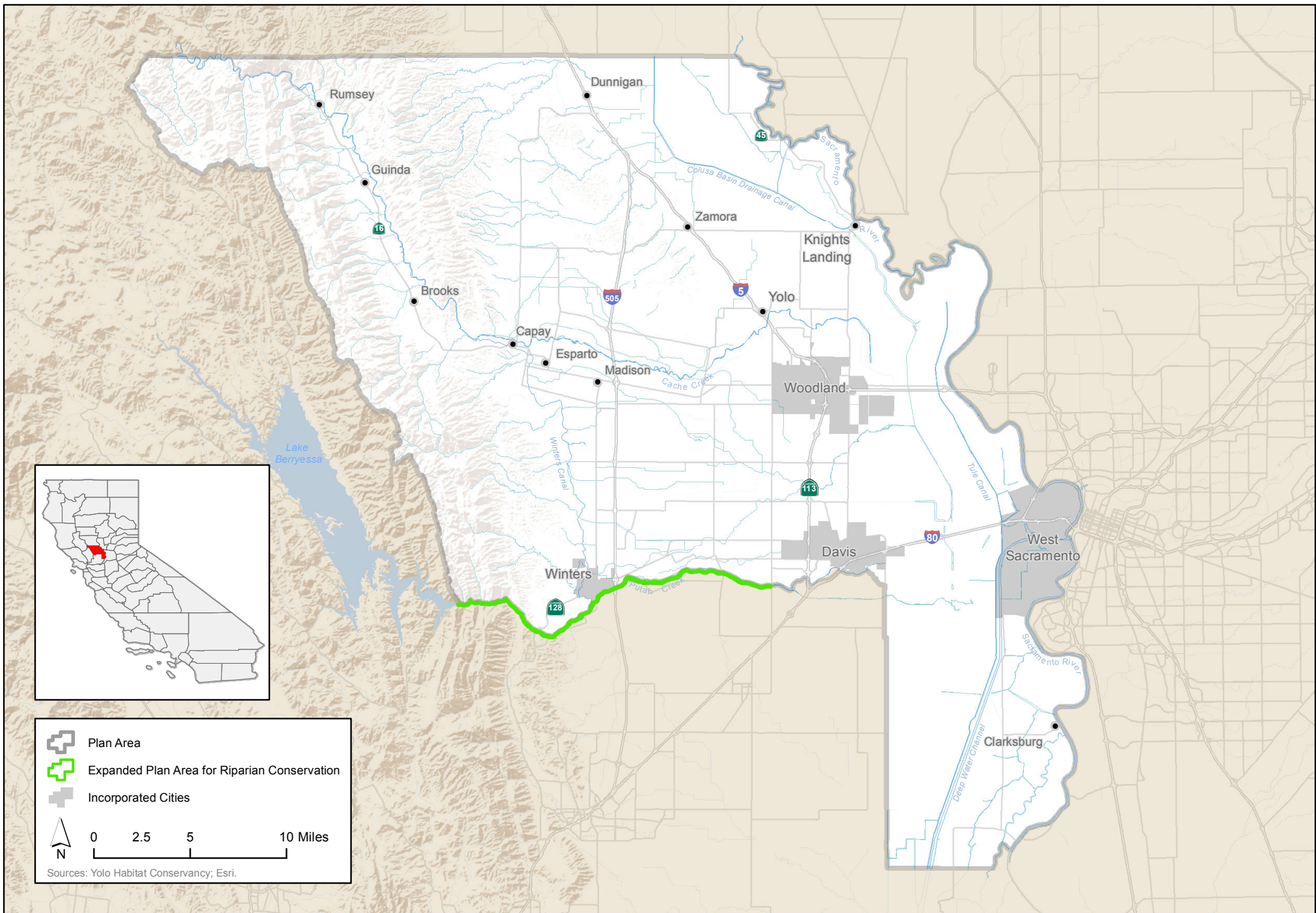
1.1.2 Local Conservation Plan

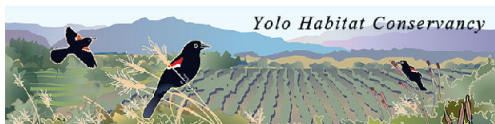
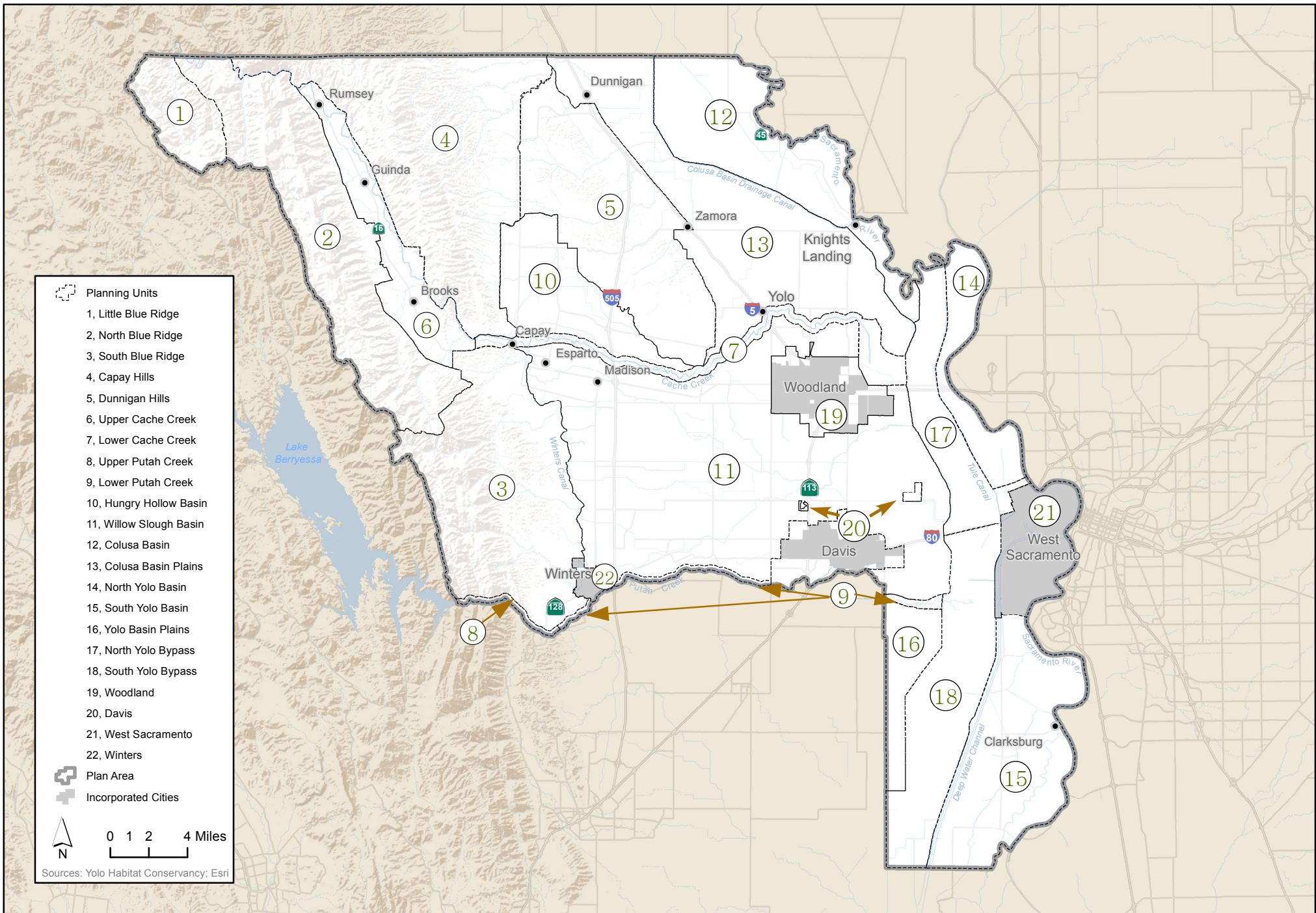
The Conservancy is preparing a Local Conservation Plan (LCP) in parallel with this HCP/NCCP. The LCP is a compatible but separate plan from the Yolo HCP/NCCP, which guides the conservation of a selected range of plant and animal species that are not covered by this HCP/NCCP and the natural communities upon which they depend. The LCP establishes conservation priorities that help focus implementation efforts to conserve other biological resources. The LCP is not a part of this HCP/NCCP, and implementation of the strategy is voluntary.

1.2 Scope of the Yolo HCP/NCCP

1.2.1 Geographic Scope of the Plan Area and Planning Units

The Plan Area encompasses all areas within the boundaries of Yolo County that are eligible for regulatory coverage under this HCP/NCCP, totaling approximately 653,549 acres (Figure 1-1). The Plan Area also includes a 1,174-acre expanded Plan Area for riparian conservation in Solano County, on the south side of Putah Creek (Figure 1-1). The Plan Area is subdivided into 22 geographically based planning units to facilitate development and execution of the analysis of potential effects associated with implementation of the covered activities (Chapter 5, *Effects on Covered Species and Natural Communities*) (Figure 1-2) and the conservation strategy (Chapter 6, *Conservation Strategy*).





1.2.2 Natural Communities

The Yolo HCP/NCCP addresses issues related to the following natural communities, which have been grouped into five categories. Although cultivated lands are not a *natural* community, crop types that provide habitat for covered species are included within the scope of this HCP/NCCP as a *seminatural* community.

Cultivated lands

- Cultivated lands seminatural community.

Grassland

- Grassland natural community.
- Serpentine natural community.

Shrubland and scrub

- Chamise natural community.
- Mixed chaparral natural community.

Woodland and forest

- Oak-foothill pine natural community.
- Blue oak woodland natural community.
- Closed-cone pine-cypress natural community.
- Montane hardwood natural community.
- Valley oak woodland natural community.

Riparian and wetland

- Alkali prairie natural community.
- Vernal pool complex natural community.
- Fresh emergent wetland natural community.
- Valley foothill riparian natural community.
- Lacustrine and riverine natural community.

Chapter 2, *Existing Ecological Conditions*, provides definitions and descriptions for each of these natural communities.

1.2.3 Covered Species

The Yolo HCP/NCCP was designed to provide the basis for issuance of federal and state endangered species permits for 12 species, including eight species that are currently listed (state, federal, or jointly listed species) and four species that are not listed but could become listed during the term of the permits (Table 1-1). These species, for which incidental take coverage is sought, are collectively referred to as *covered species*. Section 2.6.1, *Development of the Covered Species List*, and Appendix C,

Evaluation of Species Considered for Coverage, describe the process by which the Conservancy developed the covered species list.

Table 1-1. Covered Species

Common Name	Scientific Name	Status Federal/State/Other ^a
Plants		
1 Palmate-bracted bird's beak	<i>Chloropyron palmatum</i> ^b	E/E/1B
Invertebrates		
2 Valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	T/-/-
Amphibians		
3 California tiger salamander (Central California DPS)	<i>Ambystoma californiense</i>	T/T/-
Reptiles		
4 Western pond turtle	<i>Actinemys marmorata</i>	-/CSC/-
5 Giant garter snake	<i>Thamnophis gigas</i>	T/T/-
Birds		
6 Swainson's hawk	<i>Buteo swainsoni</i>	-/T/-
7 White-tailed kite	<i>Elanus leucurus</i>	-/FP/-
8 Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	T/E/-
9 Western burrowing owl	<i>Athene cunicularia hypugaea</i>	-/CSC/-
10 Least Bell's vireo	<i>Vireo bellii pusillus</i>	E/E/-
11 Bank swallow	<i>Riparia riparia</i>	-/T/-
12 Tricolored blackbird	<i>Agelaius tricolor</i>	-/C/-

^a. Status:

Federal

C = Candidate for listing under the FESA
 E = Listed as endangered under the FESA
 PT = Proposed as threatened under the FESA
 T = Listed as threatened under the FESA
 - = No designation

State

C = Candidate. Under CESA, a candidate for listing is afforded the status of a listed species
 CSC = California species of special concern
 E = Listed as endangered under the CESA
 FP = Fully protected under California Fish and Game Code
 T = Listed as threatened under the CESA
 - = No designation

Other:

1B = California Native Plant Society (CNPS) designation for species that are rare or endangered in California and elsewhere.
 - = No designation

^b. Formerly *Cordylanthus palmatus*.

DPS = distinct population segment; FESA = Federal Endangered Species Act; CESA = California Endangered Species Act

1.2.4 Covered Activities

A primary purpose of the Yolo HCP/NCCP is to obtain authorization for the incidental take of species under the FESA and NCCPA for a variety of public and private activities that will occur or are likely to occur in the Plan Area. By covering a broad range of activities, this HCP/NCCP facilitates comprehensive protection of the covered species while providing assurances that existing land uses and future growth and development within the Plan Area can proceed in a streamlined and efficient manner.

The Yolo HCP/NCCP sets out five broad classes of activities, as listed below, for which the Permittees are seeking take coverage. Some activities may span more than one category.

- Urban projects and activities.
- Rural projects and activities.
- Public and private operations and maintenance activities.
- Conservation strategy implementation.
- Neighboring landowner protection program.

Chapter 3, *Covered Activities*, identifies the types of activities and specific projects that are covered under each of these five classes of activities.

1.2.5 Permit Term

The permit term is the period during which all covered activities can receive take authorization under the Yolo HCP/NCCP, consistent with requirements of this HCP/NCCP. The permit term is also the period during which all conservation actions must be successfully completed to offset the adverse effects of covered activities.

The Permittees are seeking take permits from USFWS and CDFW for a term of 50 years. The 50-year permit term is necessary to allow for full implementation of the covered activities, the conservation strategy, the monitoring and adaptive management program, and the funding strategy. Each of these components is discussed below.

USFWS regulations for incidental take permits outline factors to consider when determining permit duration (50 Code of Federal Regulations [CFR] 17.32 and 222.307). These regulations state that the durations of incidental take permits issued with HCPs will provide adequate assurances to the permit holder who will commit the funding necessary for the activities authorized by the permit, including conservation actions. USFWS' Five-Point Policy provides further guidance on factors to consider when determining permit duration (U.S. Fish and Wildlife Service 2000a). These factors include the expected duration of the activities proposed for coverage and the length of time necessary to implement and achieve the benefits of the operating conservation program. Factors considered in determining the permit duration for the Yolo HCP/NCCP are described below.

1.2.5.1 Time to Implement Covered Activities

The 50-year permit term will provide adequate time to implement activities covered under the Yolo HCP/NCCP. Growth scenarios developed by the Sacramento Area Council of Governments (2012) predict that 80 percent of residential development and 56 percent of nonresidential development

will build out by 2035. Extrapolating these economic assumptions forward, residential development will be completely built out by approximately 2042 and nonresidential development by 2056. Therefore, a minimum of 40 years is necessary to cover buildout of the covered activities.

1.2.5.2 Time to Implement, Monitor, and Adjust Conservation Actions

USFWS policy guidance states that the permit term must be of sufficient length to implement and achieve the benefits of the operating conservation program (U.S. Fish and Wildlife Service 2000a). Within the permit term, all reserve land must be acquired, monitoring and adaptive management must be in place, and sufficient time must be provided to ensure that the program is operating effectively and allowing for adjustments as needed.

The 50-year length of the permit term provides adequate time for the assembly of a reserve system and development of a management program on conservation lands. This includes the time necessary for willing landowners¹ to become available and for the land agents of the Yolo HCP/NCCP to negotiate a fair price for the land in fee title or conservation easement. It may take several years to complete a single land acquisition or purchase a conservation easement. Given the large number of transactions required to assemble a reserve system, adequate time is needed to ensure that it happens before the end of the permit term. A permit term of 50 years also allows the monitoring and adaptive management programs to become well established so that they can continue successfully in perpetuity. As described in Chapter 6, *Conservation Strategy*, the adaptive management and monitoring program will go through three distinct phases: inventory, targeted studies, and long-term monitoring. Each phase will take many years to complete.

The Conservancy needs a permit term of 50 years to ensure sufficient numbers of willing sellers. There is currently a trend toward converting agricultural lands to orchards and vineyards. Between 2006 and 2014, the amount of land devoted to orchards (both bearing orchards and orchards too new to bear fruit) in Yolo County increased by 24,621 acres. In the short term, it may be difficult for the Conservancy to find willing sellers for the reserve system while orchards and vineyards are in high demand. Therefore, a 50-year permit term is necessary to ensure affordable acquisition costs and sufficient numbers of willing sellers to meet the Yolo HCP/NCCP conservation commitments.

One type of monitoring used in the Yolo HCP/NCCP, status and trend monitoring, will track long-term trajectories of species populations and other physical and biological conditions in the Plan Area. The 50-year permit term will provide adequate time (i.e., approximately 10 years beyond Plan Area buildout) for collecting trend data for all of the covered species and making any necessary adjustments to management techniques. Monitoring the success of restoration actions is expected to take five to 10 years for each restoration project. Most restoration actions cannot be initiated until land is acquired for the reserve system. A permit term of 50 years is necessary to allow enough time to complete land acquisition, with at least five to 10 years to initiate or complete (and remediate, if necessary) all restoration actions successfully.

A successful program for monitoring and adaptive management is essential to the continued success of the reserve system after the permit term. The Permittees will be obligated during the permit term to address potential changes in circumstances and remediate conservation areas that have been affected by these changes. A longer permit term is more likely to encompass a changed circumstance that will require a remedial action.

¹ The Conservancy will acquire land only from willing sellers.

1.2.5.3 Time to Secure Adequate Funding and Maintain Acceptable Fees

The Conservancy needs a 50-year permit term to generate the necessary funding for implementation. As described in Chapter 8, *Costs and Funding*, the Yolo HCP/NCCP will be funded by a wide variety of local, state, and federal sources. The Conservancy based the funding strategy for this HCP/NCCP on 50 years of local funding from the City of Davis open space tax, the *Cache Creek Resources Management Plan*, and the Solano County Water Agency Lower Putah Creek Coordinating Committee (see Chapter 8, *Costs and Funding*, for details). The funding sources will provide an estimated \$0.5 million per year (in 2014 dollars) for acquisition of conservation easements on agricultural lands that will support covered species, among other critical conservation actions. Shorter permit terms of 30 and 40 years were evaluated but were found to provide insufficient revenue from these sources with respect to supporting the conservation strategy and providing essential local matching funds to accompany state and federal funding sources. A 30- or 40-year permit term would reduce local funding sources by approximately \$25 million (a 44 percent reduction in local funding) or \$13 million (a 23 percent decrease), respectively (both in 2014 dollars), because of the shorter period over which revenues could be collected. Costs were also estimated for the 40-year permit term. Although total costs were reduced by approximately \$14 million (a five percent reduction), average annual costs increased by \$1 million (a 19 percent increase). The 40-year permit term therefore has a net reduction in revenue of approximately \$11 million. Without this additional revenue, the Conservancy will be unable to meet its land acquisition commitment under the Yolo HCP/NCCP with local funding sources.

Funding is also needed for management and monitoring after the permit expires (e.g., an endowment), as described in Chapter 8, *Costs and Funding*. The permit term must therefore allow sufficient time for accruing long-term funding. A shorter permit term would increase total costs (and the per-acre fees) because fewer years would be available over which to build the endowment before the need to start funding post-permit costs. That is, a longer permit term provides more years to take advantage of compounding returns on the endowment during the permit term and thus keeps endowment costs lower than they would be with a shorter permit term. The Conservancy has estimated that a 30- or 40-year permit term would raise the cost of the endowment by eight percent or four percent, respectively (the shortest permit term raises the cost of the endowment the most). This would also raise Yolo HCP/NCCP fees charged to development by the same proportion. Therefore, a 50-year permit term will allow the Conservancy to utilize local funding sources fully, meet local commitments to fund open space preservation under the Yolo HCP/NCCP, meet NCCP standards for conservation, and keep Yolo HCP/NCCP fees to acceptable levels.

1.2.5.4 Conclusions

Given the implementation horizon for covered activities, the need to acquire lands and ensure successful implementation of the conservation strategy through monitoring and adaptive management, and the need for adequate funding, the Conservancy has determined a 50-year permit term will best address regulatory, financial, and biological considerations. The 50-year permit term provides sufficient time to accomplish the following critical elements of this HCP/NCCP:

- Fully implement the general plans and other long-range plans of the cities and Yolo County.
- Assemble the reserve system from willing sellers and partnerships with local agencies and private landowners.

- Develop an effective adaptive management program that will be implemented in perpetuity, given the current uncertainties regarding the ecology of covered species and responses to resource management.
- Secure all necessary funding for implementation during the permit term from local, state, and federal sources, and generate funding for the Yolo HCP/NCCP in perpetuity.
- Charge an acceptable fee on development that will facilitate local approvals and continued support of the Yolo HCP/NCCP by the development community during implementation.
- Provide sufficient incentive for the Conservancy to commit the substantial resources necessary to complete the Yolo HCP/NCCP.

1.3 Overview of the Planning Process

1.3.1 Role of the Conservancy

The Conservancy Board of Directors, which consists of elected representatives who have been appointed by the member jurisdictions, has two primary functions: to assist in the planning, preparation, and subsequent administration of the Yolo HCP/NCCP and facilitate acquisition of conservation easements that preserve habitat for mitigating specific adverse effects on Swainson's hawk foraging habitat. The Conservancy's role in overseeing the Swainson's hawk mitigation program arose out of a 2002 Memorandum of Understanding between the Conservancy and CDFW that established a process to allow development activities to proceed during development of the Yolo HCP/NCCP. Once the permits are issued, the Conservancy will cease to operate a separate Swainson's hawk mitigation program.

In 2004, the Conservancy entered into a Planning Agreement with CDFW and the USFWS, pursuant to the NCCPA, that defined the initial scope of the program and defined the roles and responsibilities of the parties in the development of this HCP/NCCP. In 2009, the Conservancy and the wildlife agencies extended the Planning Agreement.

1.3.2 Role of the Advisory Committee

In 2004, the Conservancy appointed the Advisory Committee² to provide input and advice during the development of this HCP/NCCP. The Advisory Committee consists of representatives from the primary groups with an interest in this HCP/NCCP (the stakeholders), including Conservancy member agencies, landowners, the agricultural community, conservation organizations, and land developers. The group held open meetings on a regular basis (generally monthly) to review relevant materials and documents; evaluate and synthesize ideas, data, and information; and discuss and resolve complex issues. The Advisory Committee sought to reach a consensus when possible and provide recommendations to the Conservancy Board of Directors on a range of matters, as reflected in the Yolo HCP/NCCP.

² The Advisory Committee was formerly known as the Steering Advisory Committee, or SAC; the name was changed to Advisory Committee in 2012.

Advisory Committee member agencies and organizations³ are listed below. Members were selected according to their expertise, interest in the program, and capacity to represent the interests of their particular stakeholders.

- Building Industry Association.
- California Native Plant Society.
- Tuleyome.
- Chambers of Commerce.
- City of Davis.
- City of West Sacramento.
- City of Winters.
- City of Woodland.
- Institute for Ecological Health.
- Various landowners.
- University of California, Davis.
- Yolo Audubon Society.
- Yolo County.
- Yolo County Agricultural Commissioner.
- Yolo County Farm Bureau.
- Yolo County Flood Control and Water Conservation District.
- Yolo County Resource Conservation District.

During meetings conducted between August and October 2008, the Advisory Committee prepared and unanimously adopted the following planning principles to help guide the preparation of the Yolo HCP/NCCP:

- The planning process will be a collaborative effort that is open, inclusive, and actively participatory.
- Everyone participating in the process will be treated with respect, dignity, courtesy, and responsiveness, and the same will be expected from them.
- When shared values and goals are identified, they will be articulated and written into the Yolo HCP/NCCP.
- Partnerships that promote the Yolo HCP/NCCP and its implementation will be cultivated.
- The planning process will be conducted in a cost-effective and efficient manner without compromising conservation values and goals.
- Administration of the program will provide predictability, permit streamlining, and efficiency related to state and federal regulatory programs that protect covered species, including endangered species.

³ See Chapter 10, *List of Preparers*, for past and present Advisory Committee representatives.

- The process and the Yolo HCP/NCCP will complement other efforts designed to protect, enhance, restore, and manage biodiversity as well as natural and intrinsic resource values in Yolo County.
- The process will seek to leverage local, state, and federal funding to help achieve the Yolo HCP/NCCP's goals and objectives.
- The Yolo HCP/NCCP will assemble a shared knowledge base that describes the key concepts of the HCP/NCCP planning process.
- The Yolo HCP/NCCP includes willing participants, landowners, and sellers who are interested in preserving their land and the predominantly rural and agricultural character of Yolo County for future generations.
- The Yolo HCP/NCCP will be based on a strong scientific foundation.
- The Yolo HCP/NCCP will encourage farm and rangeland management practices that are compatible with species and habitat conservation objectives.
- The goal of the Yolo HCP/NCCP is to restore, enhance, and conserve the natural heritage of Yolo County while encouraging smart, sensible, and sustainable economic activity; maintaining and enhancing agricultural production; and including and expanding recreational opportunities.

The Advisory Committee formed working groups to focus on specific issues regarding development of the Yolo HCP/NCCP. These groups included the Biological Working Group, Agriculture Working Group, Urban Interface Working Group, and Riparian Resources Working Group. The working groups met on an *ad hoc* basis to develop supporting information and consider how HCP/NCCP components—including scientific data and analysis, approaches to conservation strategies, adaptive management and monitoring—should be shaped in relation to the specific issues considered by each working group. Many of the results of workgroup deliberations were used in development of the conservation strategy (Chapter 6, *Conservation Strategy*).

The Advisory Committee was engaged in extensive review of the elements of the first administrative draft of the Yolo HCP/NCCP and providing recommendations regarding HCP/NCCP content for consideration by Conservancy staff members and consultant personnel. The overall framework for the conservation approaches presented in the Yolo HCP/NCCP reflects substantial engagement and input from Advisory Committee members during the course of plan development.

In 2013, the Conservancy initiated a process to review and resolve the remaining substantive HCP/NCCP planning and implementation issues prior to preparation of the Second Administrative Draft. The Advisory Committee reviewed and provided input for five papers prepared by the Conservancy that served as the framework for resolving the following issues with USFWS and CDFW:

- The Conservancy's proposed approach for conserving agricultural habitat values for covered species during the 50-year permit period.
- Coordination and implementation issues related to implementation of *Bay-Delta Conservation Plan* (BDCP) conservation actions in the HCP/NCCP Plan Area.⁴
- The Conservancy's proposed approach for conserving Swainson's hawk.

⁴ The BDCP effort has since been abandoned.

- The Conservancy's proposed approach for conserving giant garter snake.
- A proposed approach for addressing conservation for Yolo County Species of Local Concern.

The Advisory Committee subsequently participated in the preparation and review of the Second Administrative Draft and Public Review Draft HCP/NCCP. They also participated extensively in the preparation of the Local Conservation Plan.

1.3.3 Coordination with Federal and State Agencies

Since the release of the first administrative draft in June 2013, USFWS and CDFW staff participated in many half-day and full-day meetings to resolve important issues related to the first administrative draft plan. These agencies provided technical input on the baseline data, covered species list, covered species accounts, existing ecological conditions report, covered activities, effects analysis, and conservation strategy. USFWS and CDFW staff involvement also included attendance at Advisory Committee meetings and regular communications with and attendance at meetings of the Conservancy Board of Directors. USFWS and CDFW reviewed and commented on each of the 2013 issue papers (Section 1.3.2, *Role of the Advisory Committee*) and reviewed and commented on each chapter prior to release of the Second Administrative Draft Plan and Pre-Public Review Draft in 2015. The Conservancy coordinated extensively with USFWS and CDFW in 2016 to resolve remaining issues in preparation of the Public Review Draft, and reviewed every chapter of the Public Review Draft. In addition, USFWS and CDFW assisted the Conservancy with securing sufficient grant funding to prepare this HCP/NCCP.

1.3.4 Public Participation and Engagement

The NCCPA requires the establishment of a process for public participation and outreach throughout development of an NCCP (Fish & Game Code Section 2815). Similarly, policies governing the FESA emphasize the importance of public involvement in the development of large-scale HCPs and encourage plan participants to engage the public (U.S. Fish and Wildlife Service 2000a). At the initial stage of the Yolo HCP/NCCP planning process, the Conservancy developed an outreach program to create a wide range of opportunities for the public to learn about the various elements of the Yolo HCP/NCCP and facilitate public input during the course of its development.

All meetings of the Advisory Committee and its working groups were open to the public. An electronic mailing list server was developed and maintained to ensure that interested members of the public were notified of upcoming meetings and that draft documents pertaining to the planning process were distributed as they became available. All documents reviewed or prepared by the Advisory Committee, including its working groups, were made available to the public. At meetings, both oral and written public comments were received by the Advisory Committee; comments received in writing were posted to the website. The notes and records of Advisory Committee meetings also reflect comments and input offered by the public.

Throughout the planning process, representatives of this HCP/NCCP conducted dozens of briefings for community organizations, local jurisdictions within and adjacent to the Plan Area, and environmental organizations. Representatives made public presentations throughout the Plan Area and regularly distributed information about this HCP/NCCP through newsletters and updated fact sheets that explained its purpose and described its various components. Representatives conducted additional public outreach and involvement activities around major milestones in the planning process, in compliance with NEPA and CEQA environmental review processes.

To facilitate the dissemination of information, the Conservancy maintained a Yolo HCP/NCCP website.⁵ The website provides the following information:

- Relevant background information and agreements.
- Draft chapters, appendices, and sections of the Yolo HCP/NCCP during document development.
- Information on landscapes, natural communities, and covered species.
- Maps.
- Schedule of Advisory Committee and Conservancy Board of Director meetings, with agendas, handouts, and meeting summaries.
- Contact information for the Conservancy.
- Links to other relevant websites, including USFWS, CDFW, and other nearby HCPs and NCCPs.

1.3.5 Integration of Science

Use of the best available science is a priority for this HCP/NCCP. In 2006, the Conservancy and Advisory Committee assembled the Independent Science Advisors, a group of experts in conservation ecology and the specific biological resources in the Plan Area. The Conservancy hired a science advisor facilitator to assist in the formation of and coordinate with the Independent Science Advisors.

The Independent Science Advisors (Spencer et al. 2006) submitted a report to the Conservancy and Advisory Committee in May 2006 that summarized its recommendations on the Yolo HCP/NCCP. This NCCPA-required scientific input was provided early in the planning process, before preparation of the draft HCP/NCCP, to ensure that the Yolo HCP/NCCP was developed with use of the best available science.

To ensure objectivity, the advisors operated independent of the Permittees, their consultants, and other entities that are involved in the Yolo HCP/NCCP. The advisors reviewed information prepared by the consultants, attended a workshop, completed subsequent research, and engaged in discussions. The Independent Science Advisors met August 15 and 16, 2005, to review information gathered for the Yolo HCP/NCCP planning process, hear the concerns of the Advisory Committee, tour portions of the Plan Area, and begin formulating recommendations for HCP/NCCP development and implementation. Advisors were also encouraged to seek expert input from other scientists.

Recommendations were provided to the Conservancy in the *Report of Independent Science Advisors for Yolo County Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP)* (Spencer et al. 2006) regarding the scope of this HCP/NCCP, information gaps, the conservation design, the conservation analyses, and the adaptive management and monitoring. Independent Science Advisor recommendations were used to guide subsequent HCP/NCCP planning. Major recommendations incorporated into this HCP/NCCP included updating and refining HCP/NCCP vegetation mapping as well as refining conservation design principles. In addition, the Local Conservation Plan incorporates a number of recommendations in concept from the Independent Sciences Advisors' report as elements in the conservation of natural ecosystem elements in Yolo County.

⁵ www.yolohabitatconservancy.org

1.4 Regulatory Context

The Yolo HCP/NCCP operates within and assists in achieving the requirements of numerous applicable federal and state laws and regulations. This section describes the federal and state laws and regulations with which this HCP/NCCP complies.

1.4.1 Federal and State Endangered Species Laws

1.4.1.1 Federal Endangered Species Act

The FESA, which is administered by USFWS, requires USFWS to maintain lists of threatened and endangered species and affords substantial protection to listed species. USFWS can list species as either *endangered* or *threatened*. An *endangered* species is at risk of extinction throughout all or a significant portion of its range (FESA Section 3[6]). A *threatened* species is likely to become endangered in the near future (FESA Section 3[19]). Section 9 of the FESA prohibits the take of any fish or wildlife species that has been listed under the FESA as endangered or threatened.⁶ *Take*, as defined by the FESA, means “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” *Harm* is defined as “any act that kills or injures the species, including significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering” (50 CFR 17.3). Section 9 prohibits the “removal or reduction to possession” of any listed plant species “under federal jurisdiction” (i.e., on federal land, where federal funding is provided, or where federal authorization is required).

The FESA includes mechanisms that provide exceptions to the Section 9 take prohibitions. These are addressed in Section 7 for federal actions and Section 10 for nonfederal actions.

1.4.1.1.1 Section 7

Section 7 of the FESA requires all federal agencies to ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of habitat critical to such species’ survival. To ensure that its actions do not result in jeopardy to listed species or in the adverse modification of critical habitat,⁷ each federal agency must consult with USFWS regarding federal agency actions that may affect listed species. The issuance of permits for this HCP/NCCP is a federal action that triggers Section 7 consultation. Consultation begins when the federal agency submits a written request for initiation to USFWS, along with the agency’s biological assessment of its proposed action, and when USFWS accepts that biological assessment as complete. If USFWS concludes that the action is not likely to adversely affect a listed species, the action may be conducted without further review under the FESA. Otherwise, USFWS must prepare a written biological opinion that describes how the agency’s action will affect the listed species and its critical habitat. For this HCP/NCCP, USFWS will consult internally (with itself) to comply with Section 7 of the FESA.

⁶ The protection of threatened species under Section 9 is discretionary, through a rule issued under Section 4(d) of the FESA. By regulation, USFWS automatically affords Section 9 protections to threatened species at the time of listing. These protections can later be modified by USFWS through a 4(d) rule.

⁷ *Critical habitat* is defined as specific geographic areas, whether occupied by listed species or not, that are determined to be essential for the conservation and management of listed species and that have been formally described in the *Federal Register*.

If the biological opinion concludes that the proposed action would jeopardize the continued existence of a listed species or adversely modify its critical habitat, the opinion will suggest “reasonable and prudent alternatives” that would avoid that result. If the biological opinion concludes that the proposed action would take a listed species but would not jeopardize its continued existence, the biological opinion will include an incidental take statement. *Incidental take* is take that is “incidental to, and not intended as part of, an otherwise lawful activity” (64 CFR 60728). The incidental take statement specifies an amount of take that is allowed to occur because of the action and may require reasonable and prudent measures to minimize the impact of the take.

Unlike state, local, and private entities, federal agencies cannot receive the regulatory assurances available under Section 10 of the FESA. Therefore, any project with a federal lead agency or federal involvement (e.g., a federal permit, federal funding, or a project on federal land) must obtain take authorization through Section 7 rather than Section 10 and an HCP. This means that projects with federal involvement, including some of the covered activities described in Chapter 3, *Covered Activities*, cannot use an approved HCP directly for take authorization. If the applicant complies with the conservation measures in this HCP/NCCP, however, the Section 7 consultation process is expected to be greatly streamlined. Unless otherwise required by law or regulation, USFWS will ensure that a biological opinion for a project with a federal lead agency that is addressed by this HCP/NCCP is consistent with the biological opinion for this HCP/NCCP. USFWS will not impose measures for coverage under this HCP/NCCP in excess of those that have been or will be required by the Implementing Agreement,⁸ this HCP/NCCP, and the permits, unless otherwise required by law or regulation.

1.4.1.1.2 Section 10

Until 1982, state, local, and private entities had no means for acquiring incidental take authorization, unlike federal agencies under Section 7. Private landowners and local and state agencies risked direct violation of the FESA no matter how carefully their projects were implemented. This statutory dilemma led Congress to amend Section 10 of the FESA in 1982 to authorize the issuance of an incidental take permit to nonfederal project proponents upon completion of an approved conservation plan. The term *conservation plan* has evolved into *habitat conservation plan* (HCP).

In cases where federal land, funding, or authorization is not required for an action by a nonfederal entity, the take of listed fish and wildlife species can be permitted by USFWS and/or the National Marine Fisheries Service (NMFS) through the Section 10 process, which requires preparation of an HCP. Private landowners, corporations, state agencies, local agencies, and other nonfederal entities must obtain a Section 10(a)(1)(B) incidental take permit for take of federally listed fish and wildlife species “that is incidental to, but not the purpose of, otherwise lawful activities.”

⁸ The Implementing Agreement is a legal document, signed by all parties, that identifies roles and responsibilities of all parties, including the Permittees, USFWS, and CDFW. The agreement typically incorporates actions from the conservation plan that are agreed to by all parties. See Appendix E, *Implementing Agreement*.

The Yolo HCP/NCCP provides the following mandatory elements of an HCP needed for USFWS issuance of a Section 10(a)(1)(B) incidental take permit:

- The impact that will most likely result from the taking of covered species (Chapter 5, *Effects on Covered Species and Natural Communities*).
- The steps the applicant will take to monitor, minimize, and mitigate such impacts to the maximum extent practicable (Section 4.3.4, *Covered Species*; and Chapter 6, *Conservation Strategy*).
- The funding that will be available to implement such steps (Chapter 8, *Costs and Funding*).
- The procedures to be used to deal with unforeseen circumstances (Chapter 7, *Plan Implementation*).⁹
- The alternative actions to such taking the applicant considered and the reasons why such alternatives will not be used (Chapter 9, *Alternatives to Take*).
- Such other measures that the Director [of the Department of Interior or Commerce] may require as being necessary or appropriate for purposes of the plan (50 CFR 17.22(b)).

To receive an incidental take permit, Section 10(a)(2)(B) of the FESA requires that the following criteria be met:

- The taking will be incidental to otherwise lawful activities (Chapter 3, *Covered Activities*).
- The applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking (Chapter 5, *Effects on Covered Species and Natural Communities*, and Chapter 6, *Conservation Strategy*).
- The applicant will ensure adequate funding for the HCP and procedures to deal with unforeseen circumstances (Chapter 8, *Costs and Funding*).
- The taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild (Chapter 5, *Effects on Covered Species and Natural Communities*).
- The applicant will ensure that other measures that USFWS may require as being necessary or appropriate will be provided.
- USFWS has received such other assurances as may be required that the HCP will be implemented.

Prior to the approval of an HCP, USFWS is required to undertake an internal Section 7 consultation¹⁰ because issuance of an incidental take permit is a federal action (Section 1.4.1.1.1, *Federal Endangered Species Act*). Elements specific to the Section 7 process that are not required under the Section 10 process (e.g., analysis of impacts on designated critical habitat and analysis of cumulative impacts on listed species) are included in this HCP/NCCP to help meet the requirements of Section 7. The Plan Area includes designated critical habitat for only one covered species, the California tiger salamander, and the critical habitat analysis for this species is included in Section 5.9, *Critical*

⁹ *Unforeseen circumstances* are changes in circumstances that affect a covered species or geographic area covered by the HCP that could not have been reasonably anticipated by the plan developers and result in a substantial and adverse change in the status of a covered species.

¹⁰ When USFWS issues a permit, it will consult internally and with NMFS, if necessary.

Habitat. Cumulative effects on covered species, consistent with Section 7 of the FESA, are addressed in Section 5.8, *Cumulative Effects*.

The take prohibition for listed plant species is more limited than the prohibition for listed fish and wildlife species. Under Section 9(a)(2)(B) of the FESA, endangered plants are protected from “removal, reduction to possession, and malicious damage or destruction” in areas that are under federal jurisdiction. Section 9(a)(2)(B) of the FESA also provides protection to plants from removal, cutting, digging up, damage, or destruction where the action takes place in violation of any state law or regulation or in violation of a state criminal trespass law. Thus, the FESA does not prohibit the incidental take of federally listed plants on private or other nonfederal lands unless the action requires federal authorization or is in violation of state law. Section 10 incidental take permits are not required for plant species. The Section 7(a)(2) prohibition against jeopardy applies to plants; issuance of a Section 10(a)(1)(B) incidental take permit cannot result in jeopardy to a listed plant species.

1.4.1.1.3 Five-Point Policy

In June 2000, USFWS adopted the Five-Point Policy to clarify elements of the HCP program as they relate to biological goals, adaptive management, monitoring, permit duration, and public participation (U.S. Fish and Wildlife Service 2000a). The Five-Point Policy directs that the following elements be addressed in the development of HCPs:

- **Biological Goals and Objectives.** HCPs are required to define the biological goals and objectives that the plan is intended to achieve and clarify the purpose and direction of the plan’s conservation program.

This HCP/NCCP sets out extensive biological goals and objectives, including the specific measurable targets this HCP/NCCP is designed to meet. These targets were based on the best available scientific information and have been used as parameters and benchmarks to guide the conservation strategies for the covered species and natural communities. The biological goals and objectives of this HCP/NCCP are described in Chapter 6, Section 6.3, *Biological Goals and Objectives*. Chapter 7, *Plan Implementation*, describes how the Conservancy will demonstrate at regular intervals that it is meeting the conservation commitments.

- **Adaptive Management.** The Five-Point Policy encourages the inclusion of adaptive management strategies in HCPs in appropriate circumstances to address uncertainty related to the species that are covered by a plan. The agencies describe adaptive management as a “method for examining alternative strategies for meeting measurable biological goals and objectives and then, if necessary, adjusting future conservation management actions according to what is learned” (U.S. Fish and Wildlife Service 2000a).

This HCP/NCCP incorporates an adaptive management process that is designed to facilitate and improve decision-making during implementation of this HCP/NCCP and identify adjustments and modifications, as defined in this HCP/NCCP, to the conservation strategy as new information becomes available over time. The framework for the adaptive management program is set out in Chapter 6, Section 6.5, *Monitoring and Adaptive Management*.

- **Monitoring.** HCPs are required to include provisions for monitoring to gauge the effectiveness of the plan in meeting the biological goals and objectives and verify that the terms and conditions of the plan are being properly implemented.

The biological and compliance monitoring provisions of this HCP/NCCP are found in Chapter 6, Section 6.5, *Monitoring and Adaptive Management*.

- **Permit Duration.** Consistent with the Five-Point Policy, USFWS considers several factors in determining the term of an incidental take permit. The agency, for instance, takes into account the expected duration of the activities that are proposed for coverage and the anticipated positive and negative effects on covered species that will most likely occur during the course of the plan. The agency also factors in the level of scientific and commercial data underlying the proposed conservation strategy, the length of time necessary to implement and achieve the benefits of the operating conservation program, and the extent to which the program incorporates adaptive management strategies.

The Conservancy evaluated factors associated with permit duration. The outcomes of this evaluation resulted in a proposed duration of 50 years for the permits to be issued pursuant to this HCP/NCCP (Section 1.2.5, *Permit Term*).

- **Public Participation.** The Five-Point Policy increases public participation in the HCP process by including greater opportunities for the public to assess, review, and analyze HCPs and associated NEPA documentation. As part of this effort, the agencies have encouraged greater engagement of the public for most HCPs, particularly those with regional scopes.

As described in Section 1.3.4, *Public Participation and Engagement*, the planning process afforded extensive opportunities for public involvement and input throughout development of this HCP/NCCP.

1.4.1.2 California Endangered Species Act

The CESA prohibits take of wildlife and plants that have been listed as threatened or endangered by the California Fish and Game Commission. *Take* is defined under the Fish & Game Code (more narrowly than under the FESA) as any action or attempt to “hunt, pursue, catch, capture, or kill.” Therefore, take under the CESA does not include “the taking of habitat alone or the impacts of the taking.” Rather, the courts have affirmed that under the CESA, “taking involves mortality.”¹¹

Similar to the FESA, the CESA allows exceptions to the prohibition for take that occurs during otherwise lawful activities. The requirements of an application for incidental take under the CESA are described in Section 2081 of the Fish & Game Code. Incidental take of state-listed species may be authorized if an applicant submits an approved plan that minimizes and “fully mitigates” the impacts of this take. The Permittees are not seeking incidental take authorizations under the CESA but are instead seeking state take authorization through the NCCPA, as described below.

1.4.1.3 Natural Community Conservation Planning Act

In 1991, California’s NCCPA (Fish & Game Code Section 2800 *et seq.*) was enacted to implement broad-based planning that balances appropriate development and growth with conservation of wildlife and habitat. Pursuant to the NCCPA, local, state, and federal agencies are encouraged to prepare NCCPs to provide comprehensive management and conservation of multiple species and their habitats under a single plan, rather than through preparation of numerous individual plans on a project-by-project basis. The NCCPA is broader in its orientation and objectives than are the FESA and CESA. Preparation of an NCCP is voluntary. To be approved by CDFW, an NCCP must provide for

¹¹ *Environmental Council of Sacramento v. City of Sacramento*, 142 Cal. App. 4th 1018 (2006).

the conservation of species and protection and management of natural communities in perpetuity within the area covered by permits. *Conservation* is defined by the NCCPA and the Fish & Game Code as actions that result in the delisting of state-listed species. Thus, NCCPs must provide for the conservation of covered species, rather than just mitigate the effects of covered activities. This conservation standard is one of the major differences between an NCCP and an HCP that has been prepared to satisfy the FESA or CESA.

The 1991 NCCPA was replaced with a substantially revised and expanded NCCPA in 2002. The revised NCCPA established new standards and guidance on many facets of the program, including scientific information, public participation, biological goals, interim project review, and approval criteria. The new NCCPA took effect on January 1, 2003.

To approve an NCCP under the new NCCPA, CDFW must make a series of findings.

- The plan must be consistent with the Planning Agreement.
- The plan must provide for the conservation and management of the covered species in the Plan Area.
- The plan must protect habitat, natural communities, and species diversity¹² on the landscape level.
- The plan must conserve the ecological integrity of large habitat blocks, ecosystem function, and biodiversity.
- The plan must support sustainable populations of covered species.
- The plan must provide a range of environmental gradients and habitat diversity to support shifting species distributions.
- The plan must sustain movement of species among reserves.
- Mitigation and conservation must be roughly proportional to impacts in timing and extent.
- Funding for conservation, monitoring, and adaptive management must be adequately assured.

Table 1-2 provides a checklist of the NCCPA findings that CDFW must make to issue its NCCP permit, along with the locations in the Yolo HCP/NCCP where those findings are supported.

Table 1-2. Checklist for Natural Community Conservation Planning Act and Federal Endangered Species Act Requirements

Natural Community Conservation Planning Act Requirement (California Fish and Game Code Section)	Applicable HCP/NCCP Chapter/Section^a
The plan was developed in accordance with the process identified in the Planning Agreement per Section 2810. (2820(a)(1))	Chapter 1, Section 1.2.1, <i>Geographic Scope of the Plan Area and Planning Units</i> Chapter 1, Section 1.3, <i>Overview of the Planning Process</i> Chapter 8, <i>Costs and Funding</i>

¹² Definitions of these and other NCCP terms are provided in Appendix D, *Glossary of Terms*.

Natural Community Conservation Planning Act Requirement (California Fish and Game Code Section)	Applicable HCP/NCCP Chapter/Section^a
The plan integrates adaptive management strategies that are periodically evaluated and modified based on information from monitoring programs and other sources; these strategies assist conservation of covered species and ecosystems within the Plan Area. (2820(a)(2))	Chapter 6, Section 6.5, <i>Monitoring and Adaptive Management</i>
[The plan] Protects habitat, natural communities, and species diversity on a landscape or ecosystem basis 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. (2820(a)(3))	Chapter 6, <i>Conservation Strategy</i>
[The plan] Conserves, restores, and manages representative natural and seminatural landscapes to maintain the ecological integrity of large habitat blocks, ecosystem function, and biological diversity. (2820(a)(4)(A))	Chapter 6, <i>Conservation Strategy</i>
[The plan] Establishes one or more reserves or proposes 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. (2820(a)(4)(B))	Chapter 6, <i>Conservation Strategy</i>
[The plan] Protects and maintains habitat areas that are large enough to support sustainable populations of covered species. (2820(a)(4)(C))	Chapter 6, <i>Conservation Strategy</i>
[The plan] Sustains the effective movement and interchange of organisms between habitat areas to maintain ecological integrity of habitat within the Plan Area. (2820(a)(4)(E))	Chapter 6, Section 6.3.2, <i>Landscape-Level Biological Goals and Objectives</i>
The plan incorporates a range of environmental gradients (such as slope, elevation, aspect, and coastal or inland characteristics) and high habitat diversity; this provides for shifting distributions of species due to changed circumstances. (2820(a)(4)(D))	Chapter 6, Section 6.3.2, <i>Landscape-Level Biological Goals and Objectives</i>
The plan identifies allowable activities and restrictions within reserve areas compatible with conservation of species, habitats, natural communities, and associated ecological functions. (2820(a)(5))	Chapter 4, <i>Application Process and Conditions on Covered Activities</i>
The plan contains specific conservation measures that meet the biological needs of covered species and are based on the best available scientific information about the status of covered species and the impacts of permitted activities on those species. (2820(a)(6))	Chapter 6, Section 6.4, <i>Conservation Measures</i> and Chapter 7, Section 7.7.1, <i>Changed and Unforeseen Circumstances</i>
The plan contains a monitoring program. (2820(a)(7))	Chapter 6, Section 6.5, <i>Monitoring and Adaptive Management</i>
The plan contains an adaptive management program. (2820(a)(8))	Chapter 6, Section 6.5, <i>Monitoring and Adaptive Management</i>
The plan includes an estimated timeframe and process for implementing reserves or other conservation measures, including obligations of landowners and plan signatories and consequences for failure to acquire lands in a timely manner. (2820(a)(9))	Chapter 6, Section 6.3, <i>Biological Goals and Objectives</i> Chapter 7, <i>Plan Implementation</i>

Natural Community Conservation Planning Act Requirement (California Fish and Game Code Section)	Applicable HCP/NCCP Chapter/Section^a
The plan ensures that mitigation and conservation measures are roughly proportional in time and extent to the impact on habitat or covered species authorized under the plan. These provisions identify (a) the conservation measures—including assembly of reserves where appropriate and implementation of monitoring and management activities—that the landowner will maintain or carry out in rough proportion to the impact on habitat or covered species and (b) the measurements that will be used to determine if this occurs. (2820(b)(3)(D)(9))	Chapter 6, <i>Conservation Strategy</i>
The plan ensures adequate funding to carry out the conservation measures identified in the plan. (2820(a)(10))	Chapter 8, <i>Costs and Funding</i>
The plan defines species coverage, including any conditions of coverage (2820(b)(1))	Chapter 4, <i>Application Process and Conditions on Covered Activities</i>
The plan establishes long-term protection of habitat reserves or provides equivalent conservation of covered species (2820(b)(2))	Chapter 6, <i>Conservation Strategy</i>
The plan defines specific terms and conditions, which, if violated, would result in the suspension or revocation of the permit in whole or in part. CDFW will include 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 permit in whole or in part. These terms and conditions will address, but are not limited to, provisions specifying the actions CDFW will take under all of the following circumstances (2820(b)(3)):	Chapter 7, <i>Plan Implementation</i>
<ul style="list-style-type: none"> • The plan participant fails to provide adequate funding. • The plan participant fails to maintain rough proportionality between impacts on habitat or covered species and conservation measures. • 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. • The level of take exceeds that authorized by the permit. 	
The plan specifies procedures for amendment of the plan and the implementation agreement (2820(b)(4))	Chapter 7, <i>Plan Implementation</i>
The plan ensures implementation of a monitoring program and adaptive management program. (2820(b)(5))	Chapter 6, Section 6.5, <i>Monitoring and Adaptive Management</i>
The plan provides for oversight of plan implementation to assess mitigation performance, funding, and habitat protection measures. (2820(b)(6))	Chapter 7, <i>Plan Implementation</i>
The plan provides for periodic reporting to the wildlife agencies and the public for purposes of information and evaluation of plan progress. (2820(b)(7))	Chapter 7, <i>Plan Implementation</i>
The plan provides mechanisms to ensure adequate funding to carry out the conservation actions identified in the plan. (2820(b)(8))	Chapter 8, <i>Costs and Funding</i>

Natural Community Conservation Planning Act Requirement (California Fish and Game Code Section)	Applicable HCP/NCCP Chapter/Section^a
The plan stipulates that if a participant does not maintain proportionality between take and the conservation measures specified in the implementation agreement and does not either (a) cure the default within 45 days or (b) enter into an agreement with CDFW within 45 days to expeditiously cure the default, CDFW will suspend or revoke the permit in whole or in part. (2820(c))	Chapter 7, <i>Plan Implementation</i>
The plan requires that data and reports associated with monitoring programs be available for public review; the landowner must also conduct public workshops on an annual basis to provide information and evaluate progress toward attaining the conservation objectives of the plan. (2820(d))	Chapter 6, Section 6.5 <i>Monitoring and Adaptive Management</i> Chapter 7 <i>Plan Implementation</i>
Habitat Conservation Plan Requirement (Section 10 of Federal Endangered Act)	Applicable HCP/NCCP Chapter/Section^a
The plan specifies the impact which will likely result from take of covered species (Section 10(a)(2)(A)(i)). The taking must be incidental (Section 10(a)(2)(B)(i)) and must not appreciably reduce the likelihood of the survival and recovery of the species in the wild (Section 10(a)(2)(B)(iv))	Chapter 5, <i>Effects of Covered Activities</i>
The plan specifies what steps the applicant will take to minimize and mitigate the impacts (Section 10(a)(2)(A)(ii)). The applicant must minimize and mitigate impacts to the maximum extent practicable (Section 10(a)(2)(B)(ii)).	Chapter 6, <i>Conservation Strategy</i>
The plan specifies the funding that will be available to implement the minimization and mitigation actions (Section 10(a)(2)(A)(ii))	Chapter 8, <i>Cost and Funding</i>
The Plan specifies alternative actions to take of covered species the applicant considered and the reasons why such alternatives are not being considered.	Chapter 9, <i>Alternatives</i>
^a Only the primary applicable sections of this HCP/NCCP are listed. Other sections may apply or be cross-referenced by the sections listed in this table.	

1.4.2 Other Federal and State Wildlife Laws and Regulations

This section describes the relationships between this HCP/NCCP and other federal and state wildlife laws and environmental regulations. This HCP/NCCP provides take authorization under the CESA, FESA, and NCCPA, but a covered activity may require other permits for implementation under the laws and regulations discussed below.

1.4.2.1 Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act of 1918 (MBTA) (16 United States Code [USC] 703 *et seq.*) implements various treaties and conventions between the United States and Canada, Japan, Mexico, and countries of the former Soviet Union for the protection of migratory birds. Under the MBTA, taking, killing, or possessing migratory birds is unlawful, as is taking of any parts, nests, or eggs of such birds (16 USC 703). *Taking* is defined more narrowly under the MBTA than under the FESA and includes only the death or injury of individuals of a migratory bird species or their eggs. Taking

under the MBTA does not include the concepts of harm and harassment, as defined by the FESA. The MBTA defines migratory birds broadly, and all covered birds in this HCP/NCCP are listed as migratory birds under the MBTA.

USFWS has developed policy guidance and implementing regulations regarding the incidental take of bird species that are listed as threatened or endangered under the FESA but also protected under the MBTA (U.S. Fish and Wildlife Service 2000a, Appendix 5). According to these regulations, an incidental take permit can function as a special purpose permit under the MBTA (50 CFR 21.27) for the take of all FESA-listed covered species that are subject to the terms and conditions specified in an HCP. Any such take will not be in violation of the MBTA.

Least Bell's vireo and western yellow-billed cuckoo are the only bird species covered by this HCP/NCCP that is currently listed under the FESA. Measures set forth in the conservation strategy to minimize and mitigate effects on covered species will provide a significant "benefit to the migratory bird resource," as required by the MBTA regulations to obtain a special purpose permit.¹³ Therefore, the FESA permit will also constitute an MBTA special purpose permit for the federally listed bird species for a three-year term (50 CFR 21.27), subject to renewal according to the authorities of the MBTA and provided that the FESA permit remains valid. If any of the covered bird species become listed under the FESA during the permit term, that species will also be covered by the MBTA special purpose permit. Until a covered bird species is listed under the FESA, however, it will be the responsibility of individual project applicants to comply fully with the MBTA. Project applicants, however, will be required to implement the applicable conditions described in Section 4.3, *Conditions on Covered Activities*. These conditions are expected to result in compliance with the MBTA for the covered bird species.

1.4.2.2 Bald and Golden Eagle Protection Act

The federal Bald and Golden Eagle Protection Act (Eagle Act) (16 USC 668 *et seq.*) prohibits take or possession of bald and golden eagles, as well as related commerce, with limited exceptions. Under the Eagle Act, it is a violation to "take, possess, sell, purchase, barter, offer to sell, transport, export or import, at any time or in any manner, any bald eagle commonly known as the American eagle, or golden eagle, alive or dead, or any part, nest, or egg, thereof." *Take* is defined to include pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, and disturb. *Disturb* is further defined as "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle; (2) a decrease in its productivity by substantially interfering with normal breeding, feeding, or sheltering behavior; or (3) nest abandonment by substantially interfering with normal breeding, feeding, or sheltering behavior" (50 CFR 22.3).

Recent revisions to the Eagle Act authorize take of bald eagles and golden eagles if all of the following conditions are met:

- The take is compatible with the preservation of the bald eagle and golden eagle.
- The take is necessary to protect a property interest in a particular locality.
- The take is associated with, but not the purpose of, an otherwise lawful activity.

¹³ Likewise, migratory birds that are not specifically covered by this HCP/NCCP will benefit from its seasonal restrictions on construction and other conservation measures.

- The take cannot be avoided (applies to individual instances of take).

Programmatic take is also permissible if the take is unavoidable, even though advanced conservation practices are being implemented (50 CFR 22.26). Permits issued under this regulation usually authorize disturbance only; however, in limited cases, a permit may authorize lethal take that results from, but is not the purpose of, an otherwise lawful activity.

Bald and golden eagles are not covered species in this HCP/NCCP.

1.4.2.3 California Fully Protected Species

In the 1960s, before the CESA was enacted, the California Legislature identified specific species for protection under the Fish & Game Code. These *fully protected* species may not be taken or possessed at any time, and no licenses or permits may be issued for their take, except for collecting these species for necessary scientific research and relocating bird species for the protection of livestock. Fully protected species are described in Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the Fish & Game Code. These protections state that “...no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected [bird], [mammal], [reptile or amphibian], [fish].” Recent legislation allows NCCPs to provide take authorization for fully protected species that are covered by an NCCP.

White-tailed kite is the only fully protected species that is covered by this HCP/NCCP; therefore, take of other fully protected species must be avoided. This HCP/NCCP includes conservation measures to avoid taking fully protected species, as defined by the Fish & Game Code. Fully protected species expected to occur in the Plan Area include, but are not restricted to, those listed below.

- Golden eagle
- American peregrine falcon
- Bald eagle
- White-tailed kite
- Western snowy plover
- Ring-tailed cat

Of these species, only white-tailed kite is proposed as a covered species in this HCP/NCCP.

1.4.2.4 Section 3503 of the Fish & Game Code (Bird Nests)

Section 3503 of the Fish & Game Code makes it “unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.” Therefore, CDFW may issue permits for authorizing take. Although this HCP/NCCP contains conservation measures to avoid and minimize such take to the maximum extent practicable, in compliance with Section 3503, some take of covered birds may still occur. The NCCP permit will serve as the authorization to take nests or eggs of covered birds pursuant to Section 3503.

1.4.2.5 Section 3503.5 of the Fish & Game Code (Birds of Prey)

Section 3503.5 of the Fish & Game Code prohibits the take, possession, or destruction of any birds of prey or their nests or eggs, “except as otherwise provided by this code or any regulation adopted

pursuant thereto.” CDFW may issue permits authorizing take of birds of prey or their nests or eggs pursuant to the CESA or the NCCPA. Two birds of prey are covered by this HCP/NCCP: Swainson’s hawk and western burrowing owl. This HCP/NCCP contains conservation measures to avoid and minimize take of Swainson’s hawk and western burrowing owl to comply with Section 3503.5. The NCCP permit will serve as the authorization for take of birds, eggs, or nests of Swainson’s hawk, white-tailed kite, and western burrowing owl that cannot be avoided pursuant to Section 3503.5.

1.4.3 National Environmental Policy Act

NEPA requires federal agencies to include in their decision-making process appropriate and careful consideration of all environmental effects of a proposed action as well as possible alternatives. Documentation of the environmental effects analysis and efforts to avoid or minimize the adverse effects of proposed actions must be made available for public notice and review. This analysis is documented in either an environmental assessment or an environmental impact statement (EIS). Project proponents must disclose in these documents whether their proposed action will adversely affect the human or natural environment. NEPA’s requirements are primarily procedural rather than substantive in that NEPA requires disclosure of environmental effects and mitigation possibilities but includes no requirement to mitigate.

The issuance by USFWS of an incidental take permit under Section 10 of the FESA constitutes a federal action. Therefore, USFWS must comply with NEPA. To satisfy NEPA requirements, USFWS released a draft EIS on [REDACTED] for a 90-day comment period that closed on [REDACTED]. The final EIS accompanies this final HCP/NCCP.

1.4.4 California Environmental Quality Act

CEQA is similar to but more extensive than NEPA in that it requires significant environmental impacts of proposed projects to be reduced to a less-than-significant level through the adoption of feasible avoidance, minimization, or mitigation measures unless unavoidable adverse impacts are overridden by specific economic, social, or other stated benefits (i.e., overriding considerations). CEQA applies to certain activities in California that are undertaken by either a public agency or a private entity that must receive some discretionary approval from a California government agency. In issuing the NCCP permit, CDFW must comply with CEQA. Similarly, the action of Yolo County and the four incorporated cities that are adopting this HCP/NCCP is subject to CEQA compliance. The Conservancy is serving as the lead agency under CEQA. To comply with CEQA, the Conservancy released a draft joint environmental impact statement/environmental impact statement (EIS/EIR) on [REDACTED]. The public comment period on the EIS/EIR closed on [REDACTED], and the final EIS/EIR was certified by the Conservancy on [REDACTED].

An EIS/EIR will provide programmatic compliance with CEQA for all activities that are covered by this HCP/NCCP. Future projects that receive take coverage under this HCP/NCCP must also comply with CEQA at the project level through their local jurisdiction. The conservation strategy was designed to meet all CEQA mitigation standards for impacts on the special-status species and natural communities that are covered in this HCP/NCCP. Project-specific CEQA documents will still be necessary, however, for covered activities. Barring major changes, it is expected that future CEQA documents for Yolo HCP/NCCP covered activities will incorporate the conservation measures in this HCP/NCCP by reference to comply with CEQA with respect to the covered species and natural communities addressed in this HCP/NCCP. Many of the conservation measures in this HCP/NCCP will benefit noncovered special-status species as well and may be adequate with respect to meeting

the CEQA standards for these species. This will be determined on a project-by-project basis through the CEQA process.

1.4.5 Federal and State Wetland Laws and Regulations

1.4.5.1 Section 404 of the Clean Water Act

In 1972, Congress passed the federal Water Pollution Control Act, commonly known as the Clean Water Act (CWA), with the goal of “restor[ing] and maintain[ing] the chemical, physical, and biological integrity of the nation’s waters” (33 USC 1251(a)). In furtherance of this goal, the CWA prohibits the discharge of any pollutants into navigable waters, except as allowed by permit issued under certain sections of the CWA (33 USC 1311, 1342, and 1344). Specifically, Section 404 authorizes the U.S. Army Corps of Engineers (USACE) to issue permits to regulate the discharge of dredged or fill materials into wetlands or other waters of the United States. Under the CWA and its implementing regulations, *waters of the United States* are broadly defined as rivers, creeks, streams, and lakes, extending to their headwaters and including adjacent wetlands (33 CFR 328.3(a)(3)).

Some covered activities will result in the discharge of dredged or fill materials into waters of the United States and will need to be authorized by USACE. These HCP/NCCP actions will receive such authorizations through both General Permits and Individual Permits that are separate from the HCP/NCCP Permits. Typically, General Permits apply to specific classes of activities that have been determined to cause no more than a minimal impact to the aquatic environment (e.g., construction of road crossings, installation of utility lines, and operations and maintenance activities) (33 CFR 325.5(c)). Individual Permits are designed for activities that have the potential to have more than a minimal effect on jurisdictional waters or that otherwise do not qualify under the conditions of a General Permit. USACE must evaluate applications for Individual Permits to determine their consistency with the requirements of the Section 404(b)(1) guidelines (40 CFR 230) and USACE regulations (33 CFR 325). Federal agency actions are subject to NEPA, and USACE will follow NEPA requirements for required actions. It is the intent of the Conservancy that the EIS/EIS prepared for this HCP/NCCP will largely address the substantive NEPA issues that may arise from federal agency reviews for General Permits or Individual Permits.

1.4.5.2 Clean Water Act Section 401 and the Porter-Cologne Water Quality Control Act

Under Section 401 of the CWA, states have the authority to certify federal permits for discharges to waters under state jurisdiction. States may review proposed federal permits (e.g., Section 404 permits) for compliance with state water quality standards. The permit cannot be issued if the state denies certification. In California, the State Water Resources Control Board (State Board) and the Regional Water Quality Control Boards (usually referred to as the Regional Boards) are responsible for the issuance of Section 401 certifications.

The Porter-Cologne Water Quality Control Act is the primary state law concerning water quality. It authorizes the State Board and Regional Boards to prepare management plans, such as regional water quality plans, to address the quality of groundwater and surface water. The Porter-Cologne Water Quality Control Act also authorizes the Regional Boards to issue waste discharge requirements that define limitations for allowable discharge to waters of the state. In addition to issuing Section 401 certifications on Section 404 applications to fill waters, the Regional Boards may issue waste discharge requirements for such activities. Waste discharge requirements may apply to

a broader range of aquatic resources than do Section 404 permits and Section 401 water quality certifications because the authority for waste discharge requirements is derived from the Porter-Cologne Water Quality Control Act and not the CWA. Applicants that obtain a permit from USACE under Section 404 must also obtain certification of that permit from the Regional Board with jurisdiction over the project site. Even if no Section 404 approvals are required, waste discharge requirements may be required for actions that affect waters of the state. In the Plan Area, the Central Valley Regional Board has jurisdiction. This HCP/NCCP does not include certifications under Section 401 or waste discharge requirements under the Porter-Cologne Water Quality Control Act. These authorizations, if required, must be obtained separately.

1.4.5.3 Lake or Streambed Alteration Agreement

California has adopted regulations to address impacts on many of the resources that are subject to Section 404 of the CWA. Although not entirely overlapping, these programs frequently intersect. Project proponents are required to obtain separate authorizations from USACE and CDFW.

Section 1602 of the Fish & Game Code requires any person, state, or local government agency to provide advance written notification to CDFW prior to initiating any activity that would divert or obstruct the natural flow, or substantially change or remove material from the bed, channel, or bank, of any river, stream, or lake or result in the disposal or deposition of debris, waste, or other material into any river, stream, or lake. The state definition of river, stream, or lake includes all rivers or streams that flow periodically or permanently through a bed or channel with banks that support fish or other aquatic life and watercourses with surface or subsurface flows that support or have supported riparian vegetation (14 California Code of Regulations 1.72).

Certain covered activities will require streambed alteration agreements under Section 1602. As part of that process, CDFW will review notifications submitted by the Permittees or third-party participants to determine if the proposed project would affect existing fish and wildlife resources that are directly dependent on a lake, river, or stream. If CDFW determines that the proposed activity will not substantially adversely affect an existing fish and wildlife resource, it will notify the applicant that no streambed alteration agreement is required, and the project may proceed (Fish & Game Code Section 1602(a)(4)(A)(i)). If CDFW determines that the project may substantially adversely affect an existing fish and wildlife resource, it will require, as part of a streambed alteration agreement, reasonable measures necessary to protect the fish and wildlife resource (Fish & Game Code Section 1603(a)).

1.4.6 National Historic Preservation Act

The National Historic Preservation Act of 1996, as amended (16 USC 470 *et seq.*), requires federal agencies to take into account the effects of federal undertakings on historic properties that are listed or eligible for listing on the National Register of Historic Places (National Register). Historic property means any prehistoric or historic district, site, building, structure, and object that is included on or eligible for inclusion on the National Register. *Federal undertaking* is defined to include the issuance of permits, such as permits under Section 10 of the FESA, including the Yolo HCP/NCCP's Section 10 permit. In undertaking its review under Section 106, the federal agency must confer with the State Historic Preservation Officer and the Advisory Council on Historic Preservation. The EIS/EIR will address compliance of HCP/NCCP conservation actions with Section 106 of the National Historic Preservation Act.

1.5 Organization of This Document

This section provides a brief overview of the contents of the chapters and appendices. The document consists of 11 chapters.

- Chapter 1, *Introduction*, sets the context for development of the Yolo HCP/NCCP, including the background, purpose, regulatory context, and scope; describes the process that guided development of this HCP/NCCP; and provides an overview of the document's contents and organization.
- Chapter 2, *Existing Ecological Conditions*, describes the existing environmental conditions within the Plan Area, providing the context in which this HCP/NCCP and its various elements have been developed.
- Chapter 3, *Covered Activities*, describes the activities identified for regulatory coverage in the Plan Area, including activities within conservation lands.
- Chapter 4, *Application Process and Conditions on Covered Activities*, describes the conditions that project applicants must meet to be covered under this HCP/NCCP, including avoidance and minimization measures, and the process through which applicants are covered.
- Chapter 5, *Effects on Covered Species and Natural Communities*, includes an analysis of the adverse and beneficial effects of the covered activities and conservation strategy on natural communities and covered species in the Plan Area. It also describes cumulative effects resulting from other future state or private activities (i.e., not involving federal activities) that are reasonably certain to occur in the Plan Area.
- Chapter 6, *Conservation Strategy*, describes the conservation strategy, including the biological goals and objectives, approach to conservation, conservation measures for species and habitats, and avoidance and minimization measures. It also describes the adaptive management decision-making process and monitoring requirements.
- Chapter 7, *Plan Implementation*, addresses implementation of this HCP/NCCP and includes a description of the Conservancy, the structure, and the decision-making process; the schedule for implementation of actions; the monitoring and reporting process for ensuring compliance; the regulatory assurances anticipated by the Permittees; a discussion of changed circumstances and the approach with respect to unforeseen circumstances; and a discussion regarding the duration, amendment, renewal, and enforcement of permits.
- Chapter 8, *Costs and Funding*, provides estimates of the costs of implementation and identifies the sources of funding on which the Permittees will rely.
- Chapter 9, *Alternatives to Take*, describes the alternatives to take of covered species that were developed and considered and the reasons why they were not adopted.
- Chapter 10, *List of Preparers*, lists the preparers of this HCP/NCCP.
- Chapter 11, *References*, lists the printed references and personal communications cited in this HCP/NCCP.

The document also includes the following 16 appendices:

- Appendix A, *Covered Species Accounts*, provides information on the status, distribution, life history, habitat needs, and threats to each covered species. It also describes the habitat models that the HCP/NCCP uses for each covered species.
- Appendix B, *Common and Scientific Names of Species Mentioned in the Text*, provides the scientific names of all species mentioned in this document. Scientific names are not included in the chapter text.
- Appendix C, *Evaluation of Species Considered for Coverage*, lists all species the Conservancy considered for coverage under the HCP/NCCP and describes the factors evaluated to determine whether or not to cover species in the HCP/NCCP.
- Appendix D, *Glossary of Terms*, provides definitions of key terms used in the HCP/NCCP.
- Appendix E, *Implementing Agreement (IA)*, is an agreement signed by all parties that identifies roles and responsibilities of the Permittees, USFWS, and CDFW.
- Appendix F, *STAC Evaluation Criteria*, provides the worksheet that the Scientific and Technical Advisory Committee (STAC) will use to evaluate sites for inclusion in the reserve system.
- Appendix G, *Pollinator Conservation Strategy*, provides a pollinator strategy prepared by the Xerces Society for Yolo County.
- Appendix H, *Cost Estimates and Assumptions*, provides the cost model and material the Conservancy used to estimate HCP/NCCP implementation costs described in Chapter 8.
- Appendix I, *Funding Plan*, provides supporting material for the funding plan described in Chapter 8.
- Appendix J, *State and Federal Funding*, describes the estimated state and federal funding for the first 10 years of HCP/NCCP implementation.
- Appendix K, *Conservation Easement Template*, provides a draft template for conservation easements to be established for the reserve system.
- Appendix L, *Staff Report on Burrowing Owl Mitigation*, provides CDFW's standard burrowing owl mitigation guidelines from 2012.
- Appendix M, *Yolo County Agricultural Practices*, lists the normal agricultural practices conducted in Yolo County by season and crop type.
- Appendix N, *Western Yellow-Billed Cuckoo Protocol*, is a placeholder for the standard protocol USFWS is developing for western yellow-billed cuckoo.
- Appendix O, *Fragmentation Effects*, provided Ascent Environmental's methodology for estimating potential indirect effects on covered species resulting from habitat fragmentation.
- Appendix P, *Management Plan Template*, provides the methodology for estimating the number of individual giant garter snakes that could be harassed, injured or killed as a result of the covered activities.