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<th>Description</th>
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<td>BDCP</td>
<td>Bay Delta Conservation Plan</td>
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<tr>
<td>BGEPA</td>
<td>Bald and Golden Eagle Protection Act</td>
</tr>
<tr>
<td>CCR</td>
<td>California Code of Regulations</td>
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<tr>
<td>CEQA</td>
<td>California Environmental Quality Act</td>
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<tr>
<td>CESA</td>
<td>California Endangered Species Act</td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>COI</td>
<td>certificate of inclusion</td>
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<tr>
<td>CWA</td>
<td>Clean Water Act</td>
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<tr>
<td>DFG</td>
<td>California Department of Fish and Game (name changed to California Department of Fish and Wildlife in 2013)</td>
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<tr>
<td>DFW</td>
<td>California Department of Fish and Wildlife (formerly California Department of Fish and Game)</td>
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<tr>
<td>EA</td>
<td>environmental assessment</td>
</tr>
<tr>
<td>EIR/EIS</td>
<td>environmental impact report/environmental impact statement</td>
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<tr>
<td>EIS</td>
<td>environmental impact statement</td>
</tr>
<tr>
<td>ESA</td>
<td>Endangered Species Act</td>
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<tr>
<td>FR</td>
<td>Federal Register</td>
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<tr>
<td>HCP</td>
<td>habitat conservation plan</td>
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<td>JPA</td>
<td>Joint Powers Agency</td>
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<td>MBTA</td>
<td>Migratory Bird Treaty Act</td>
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<td>NCCP</td>
<td>natural community conservation plan</td>
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<tr>
<td>NCCPA</td>
<td>California Natural Community Conservation Planning Act</td>
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<tr>
<td>NEPA</td>
<td>National Environmental Policy Act</td>
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<td>NHP</td>
<td>Natural Heritage Program</td>
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<td>NHPA</td>
<td>National Historic Preservation Act</td>
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<td>SB</td>
<td>Senate Bill</td>
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<tr>
<td>UC Davis</td>
<td>University of California, Davis</td>
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<tr>
<td>USACE</td>
<td>U.S. Army Corps of Engineers</td>
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<td>USEPA</td>
<td>U.S. Environmental Protection Agency</td>
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<td>USFWS</td>
<td>U.S. Fish and Wildlife Service</td>
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CHAPTER 1. INTRODUCTION

1.1 INTRODUCTION

The Yolo Natural Heritage Program (referred to as NHP) is a comprehensive, county-wide plan designed to provide for the conservation and management of sensitive species in the Plan Area covered by the NHP and the natural communities upon which those species depend, while accommodating other important uses of the land. The NHP will help protect regional biodiversity by providing for the conservation and management of these important natural communities across Yolo County, including the agricultural landscape that supports sensitive species, and ecological processes. The NHP will further replace the existing project-by-project approach to mitigation and conservation, thereby providing greater benefits to species covered by the NHP and a more streamlined mitigation process for activities covered by the NHP. The NHP serves as a habitat conservation plan (HCP) pursuant to section 10(a)(2)(A) of the federal Endangered Species Act (ESA) that will help to provide more comprehensive habitat planning related to mitigation, and a natural community conservation plan (NCCP) under the California Natural Community Conservation Planning Act (NCCPA) that will provide for the conservation and management of species covered by the NHP. The NHP also includes a local conservation strategy separate from the HCP/NCCP process that provides additional potential conservation opportunities consistent with the vision of Yolo County, the cities of West Sacramento, Winters, Woodland, and Davis, and the University of California, Davis (UC Davis). The NHP is consistent with, and is intended to support, compliance with other federal and state wildlife and related laws and regulations, the County’s recently updated General Plan, and other local conservation planning efforts, which are described in greater detail in Section 1.3, Regulatory Context.

The NHP addresses a broad range of species and natural communities across the entire area of Yolo County, approximately 653,818 acres (Figure 1-1) and specifically covers impacts on 32 species for authorization under the ESA and NCCPA, including giant garter snake and Swainson’s hawk (see Section 1.4.3, Covered Species). The NHP includes a detailed conservation strategy designed to meet specific biological resource goals and objectives through the implementation of conservation measures, including measures to minimize and mitigate impacts, and a long-term adaptive management and monitoring program. The NHP provides the basis for the issuance of long-term permits under the ESA and the NCCPA that cover an array of public and private activities, including activities essential to the ongoing viability of the County’s urban and agricultural economies.

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1 The NHP acreage for the Plan Area (i.e., Yolo County) differs from the 653,549 acres of land within Yolo County stated in the Yolo County 2030 Countywide General Plan (2009). The 269-acre difference in the area of the County is attributable to the use of different datasets to prepare the NHP and General Plan.
Figure 1-1. Yolo County Locator Map for the Plan Area
The NHP has been developed by the Yolo County Habitat/Natural Community Conservation Plan Joint Powers Agency (JPA), which consists of elected officials representing Yolo County and the cities of Davis, West Sacramento, Winters, and Woodland. The University of California, Davis is an ex officio member. On the basis of the NHP, the Permit Applicants (the County, the four incorporated cities, and the JPA) seek to obtain incidental take permits (Permits) from both the U.S. Fish and Wildlife Service (USFWS), pursuant to section 10(a)(1)(B) of the ESA, and from the California Department of Fish and Wildlife (DFW) under section 2835 of the NCCPA chapter of the Fish and Game Code. The NHP ensures compliance with the ESA, NCCPA, and the California Endangered Species Act (CESA) for the activities covered by the NHP that may affect protected species, including those species that are currently listed as threatened or endangered under state and/or federal law or are likely to become listed during the terms of the Permits. In addition to the Permit Applicants, there are a number of entities that would be covered under the federal and state Permits through certificates of inclusion (COI). The Permit Applicants and anticipated initial COI holders under the NHP are listed in Table 1-1.

Table 1-1. NHP Permit Applicants under Section 10 of the Endangered Species Act and Section 2835 of the California Fish and Game Code and Entities Expected to Receive Certificates of Inclusion

<table>
<thead>
<tr>
<th>Permit Applicants</th>
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<tbody>
<tr>
<td>1. Yolo County</td>
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<tr>
<td>2. City of West Sacramento</td>
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<td>3. City of Davis</td>
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<tr>
<td>4. City of Woodland</td>
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<td>5. City of Winters</td>
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<td>6. Yolo County Habitat/Natural Community Conservation Plan Joint Powers Agency (Implementing Entity)</td>
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<th>Expected Certificates of Inclusion</th>
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<tr>
<td>1. University of California at Davis</td>
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<td>2. Yolo County Flood Control &amp; Water Conservation District</td>
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<td>3. Dunnigan Water District</td>
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<td>4. Knights Landing Ridge Drainage District</td>
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<td>5. Yolo-Zamora Water District</td>
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<td>6. California Department of Transportation</td>
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<td>7. Agricultural lands that opt into the NHP</td>
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This list of entities expected to receive certificates of inclusions (COI) is provided only to identify known likely users of COI’s and is not intended to be comprehensive. Many other entities may apply to Permit holders and receive COI’s for their activities during the implementation of the NHP.

The NHP will help advance a number of regional environmental and economic objectives by providing an alternative to the existing project-by-project approach to endangered species permitting and conservation that currently exists. It offers instead a comprehensive program that will afford far greater benefits to species and their habitats, and establish a faster, more efficient, and less costly process for public and private projects to satisfy the requirements of state and

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2 Permit Applicants are also referred to as “Permittees.”
federal endangered species laws. The NHP will provide for the conservation of covered species within the geographic context of Yolo County.

In addition to the conservation measures described in Section 5.4 of the Conservation Strategy, the NHP includes the Local Conservation Strategy in Section 5.9 that provides for implementation of conservation measures to address additional conservation opportunities consistent with the vision of the JPA’s member agencies. The local conservation measures will provide benefits to natural communities and covered species in addition to the mitigation and conservation of these resources provided for under the conservation measures described in Section 5.4, Conservation Measures. The Local Conservation Strategy includes local conservation measures that will be implemented by the JPA to maintain agricultural habitat values and riparian habitats as well as other local conservation measures that may be sponsored by local conservation organizations and groups to benefit natural communities, covered species, and local concern species.

By identifying priority areas for conservation and for ongoing and future activities, the NHP provides much needed certainty to the land use and development process, as well as to the agricultural economy, and strikes a sensible balance between natural resource conservation and economic growth in the region.

1.2 PURPOSE AND BACKGROUND

1.2.1 Purpose

The NHP is intended to meet the requirements of the ESA and the NCCPA, and is designed to streamline and coordinate existing processes for review and permitting of public and private activities that potentially affect protected species. To meet this goal, the NHP sets out a conservation strategy that includes measures to contribute to the conservation of natural communities and the covered species, and to ensure that impacts on covered species and habitats related to covered activities are avoided, minimized, or mitigated, as appropriate. These covered activities encompass the range of existing and future activities associated with build-out of local general plans and other known identified economic activities (see Chapter 3, Covered Activities). The NHP is further intended to reinforce the role of local government in overseeing local land use planning and decision making.

1.2.2 Background

In 2001, the County and the four incorporated cities rejected an HCP that was smaller in scope and scale, and embarked on a more comprehensive conservation planning effort. The JPA was formed in August 2002 to serve as the lead agency for the preparation of the county wide NHP, including the establishment of the NHP planning process described in Section 1.4.7, Overview of the Planning Process. The NHP describes the measures that will be undertaken to conserve
important biological resources, obtain the permits for urban growth and public infrastructure projects, and ensure the continuation of Yolo County’s rich agricultural heritage.

The NHP weaves together the most current biological data on species and natural communities with city and County land use planning information that indicates projected future development activities compatible with Yolo County values. It uses biological and economic analyses to identify conservation opportunities and potential incentives to create effective regulatory compliance. NHP goals and methods were defined through open processes of stakeholder and public involvement.

The key steps in this process have included the following:

- Review of the best biological data to develop a list of covered species;
- Review of land use and economic development plans to define a list of covered activities;
- Determination of the impacts of those activities on the species and their habitat;
- Definition of clear conservation goals and strategies to protect covered species from the impacts of covered activities;
- Selection of a final reserve design criteria and conservation measures;
- Selection of local conservation measures separate from and in addition to the HCP/NCCP conservation measures;
- Development of the funding and management mechanisms for the implementation; and
- Consideration of stakeholder and public input at key decision points.

1.3 REGULATORY CONTEXT

The NHP operates within and assists in achieving the requirements of numerous applicable federal and state laws and regulations. This section describes the applicable federal and state laws and regulations with which the NHP is intended to comply and other federal and state laws and regulations with which the NHP implementation may need to comply.

1.3.1 Federal Endangered Species Act

The United States Congress passed the ESA in 1973 to provide a means for conserving the ecosystems required by endangered and threatened species in order to prevent species extinctions. The ESA has three major components relevant to the NHP: the section 9 prohibition against the “taking” of listed species; the section 10 provisions that provide for the permitting of nonfederal entities (e.g., the NHP Permittees) for the incidental take of listed species; and the section 7 requirement that federal agencies ensure, in consultation with the federal fish and wildlife agencies, that their actions are not likely to jeopardize the continued existence of species or result in modification or destruction of critical habitat.
Section 9(a)(1)(B) of the ESA prohibits the take by any person of any endangered fish or wildlife species; take of threatened fish or wildlife species is prohibited by agency regulation. The ESA prohibits the take of any listed threatened fish or wildlife species in violation of any regulation promulgated by the USFWS. “Take” is defined broadly to mean harass, harm, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.3 “Harm” is defined by regulation to mean an act which actually kills or injures wildlife, including those activities that cause significant habitat modification or degradation resulting in the killing or injuring of wildlife by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering.4 The take prohibitions of the ESA apply unless take is otherwise specifically authorized or permitted pursuant to the provisions of section 7 or section 10 of the ESA. The ESA also contains protections for listed plant species, but they are more limited than for fish and wildlife.5

Section 10 of the ESA specifically addresses the authorization for take by nonfederal entities through the development of an HCP. For those actions for which no federal nexus exists, private individuals, corporations, state and local government agencies, and other nonfederal entities who wish to conduct otherwise lawful activities that may incidentally result in the take of a listed species must first obtain a section 10 incidental take permit from the USFWS. The nonfederal entity is required to develop an HCP as part of the permit application process.

Under section 10(a)(1)(B) of the ESA, the USFWS may permit the incidental take of listed species that may occur as a result of an otherwise lawful activity. To obtain a section 10(a)(1)(B) permit, an applicant must prepare an HCP that meets the following five criteria: (1) the taking will be incidental to an otherwise lawful activity; (2) the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking; (3) the applicant will ensure that adequate funding for the plan will be provided; (4) the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild; and (5) other measures, if any, which the Services require as being necessary or appropriate for purposes of the plan will be met.6

The NHP is intended to meet all regulatory requirements necessary for the USFWS and DFW to issue permits to allow incidental take of all proposed covered species as a result of covered activities undertaken by the Permittees. The assessment of direct and indirect effects on covered species and critical habitat (see Chapter 4, Impact Assessment and Estimated Level of Take) provides the analyses and information necessary for the USFWS, as a federal agency undertaking

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4 50 Code of Federal Regulations (CFR) § 17.3.
5 Section 9(a)(2)(B) of the ESA prohibits removal, possession, or malicious damage or destruction of endangered plants in areas under federal jurisdiction, as well as actions that remove, cut, dig up, damage, or destroy endangered plants in areas outside of federal jurisdiction in violation of any state law or regulation, including state criminal trespass law. Protection for threatened plant species is limited to areas under federal jurisdiction (50 CFR § 17.71[a]). The ESA section 7(a)(2) prohibition against jeopardy applies to plants, wildlife, and fish equally, and USFWS and NMFS may not issue a section 10(a)(1)(B) permit if the issuance of that permit would result in jeopardy to any listed species.
the action of issuing a permit to the NHP Permittees, to meet the analytical requirements of
section 7 of the ESA.

Section 7 of the ESA provides that each federal agency (including USFWS when they issue a
ESA section 10 permit) must ensure, in consultation with the Secretary of the Interior or
Commerce Secretary, that any actions authorized, funded, or carried out by the agency are not
likely to jeopardize the continued existence of any endangered or threatened species or result in
the destruction or adverse modification of areas determined to be critical habitat. 7 Section 7
requires federal agencies to engage in formal consultation with the USFWS for any proposed
actions that are likely to adversely affect listed species. A biological opinion is issued by the
USFWS at the completion of formal consultation. The biological opinion may conclude that the
project as proposed is either likely or not likely to jeopardize the continued existence of the
species. If the biological opinion concludes “no jeopardy,” the action can proceed as proposed.
If the biological opinion concludes “jeopardy,” the USFWS will identify “reasonable and
prudent alternatives” to the proposed action that would avoid jeopardizing the species. Included
in the biological opinion is an incidental take statement that authorizes a specified level of take
anticipated to result from the proposed action. The incidental take statement contains
“reasonable and prudent measures” that are designed to minimize the level of incidental take and
that must be implemented as a condition of the take authorization. 8

1.3.1.1 Compliance with the Five-Point Policy Guidance

In June 2000 the USFWS adopted a Five-Point Policy (referred to as the “Five-Point
Policy”) designed to clarify elements of the habitat conservation planning program as they relate
to biological goals, adaptive management, monitoring, permit duration, and public participation. 9
The Five-Point Policy directs that the following elements be addressed in the development of
habitat conservation plans.

Biological Goals and Objectives. HCPs are required to define biological goals and objectives
that the plan is intended to achieve in order to clarify the purpose and direction of the plan’s
conservation program. The NHP sets out extensive biological goals and objectives, including
specific measurable targets that the NHP is designed to meet. These targets were developed on
the basis of the best available scientific information and have been used as parameters and
benchmarks to guide the conservation strategies for the species and natural communities covered
by the NHP. The biological goals and objectives of the NHP are described in Section 5.3.2,
Goal and Objective Statements.

Adaptive Management. The Five-Point Policy encourages the inclusion of adaptive
management strategies in HCPs in appropriate circumstances to address uncertainty related to
species covered by a plan. The agencies describe adaptive management as a “method for

8 50 CFR § 402.14(i)(5).
9 Final Addendum to the Handbook for Habitat Conservation Planning and Incidental Take Permitting, 65 Federal Register
(FR) 106, June 1, 2000 (hereinafter referred to as the “Five-Point Policy”).
examining alternative strategies for meeting measurable biological goals and objectives, and then if necessary, adjusting future conservation management actions according to what is learned.”

The NHP incorporates an adaptive management process that is designed to facilitate and improve decision making during the implementation of the NHP and identify adjustments and modifications, as defined in the NHP, to the Conservation Strategy as new information becomes available over time. The framework for the NHP adaptive management program is set out in Section 6.2, *Adaptive Management Plan*.

**Monitoring.** HCPs are required to include provisions for monitoring to gauge the effectiveness of the plan in meeting the biological goals and objectives and to verify that the terms and conditions of the plan are being properly implemented. The biological and compliance monitoring provisions of the NHP are found in Section 6.3, *Monitoring Program*.

**Permit Duration.** Consistent with the Five-Point Policy, the 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 proposed for coverage and the anticipated positive and negative effects on covered species that will likely occur during the course of the plan. The agency also factors in the level of scientific and commercial data underlying the proposed operating conservation program, 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 duration of the Permits to be issued pursuant to the NHP is proposed to be 50 years (see Section 1.4.6, *Permit Duration*).

**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 National Environmental Policy Act (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 1.4.9, *Public Participation and Engagement*, the NHP planning process afforded extensive opportunities for public involvement and input throughout the development of the NHP.

### 1.3.2 California Endangered Species Act

CESA prohibits the take of wildlife or plant species designated as threatened or endangered by the California Fish and Game Commission. “Take” is defined as any action or attempt “to hunt, pursue, catch, capture, or kill.” Like the ESA, CESA allows for exceptions to the take prohibitions for otherwise lawful activities. The requirements of an application for incidental take under CESA are described in section 2081 of the Fish and Game Code. Incidental take of endangered, threatened, or candidate species may be authorized if an applicant demonstrates,

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10 Five-Point Policy for HCPs, 65 FR 106, June 1, 2000.
11 Fish and Game Code § 2080.
12 Fish and Game Code § 86.
among other things, that the impacts of the proposed take will be minimized and fully mitigated.\(^\text{13}\)

The NHP has been designed to comply with the NCCPA, and take authorizations are being sought under section 2835 of the Fish and Game Code. The NHP’s provisions have also been developed to be consistent with the regulatory standards of CESA. The NHP Conservation Strategy incorporates measures that minimize and fully mitigate the effects of covered activities on state-listed species and includes other measures as required by CESA. As such, the actions set out in the NHP allow for findings to be made by DFW to support the issuance of incidental take authorizations under CESA.

### 1.3.3 Natural Community Conservation Planning Act

The NCCPA provides a mechanism for compliance with state endangered species regulatory requirements through the development of comprehensive, broad-scale conservation plans that focus on the needs of natural communities and the range of species that inhabit them.\(^\text{14}\) The NCCP program has provided the basis for successful collaborations throughout California between state and federal agencies, local governments, community groups, and private interests that have resulted in long-term, habitat-based protections for regional biodiversity and related ecosystems. It has also proved to be an effective tool in achieving these protections while reducing conflicts between achieving conservation goals and allowing the reasonable use of natural resources and lands for economic development. The NHP adopts the approaches set out in the NCCPA and incorporates those elements necessary to meet regulatory requirements of the Act.

Specifically, the NHP has been developed in a manner consistent with the process identified in its Planning Agreement (see Appendix J, *Yolo NHP Planning Agreement*) including processes to ensure ample public participation and engagement throughout NHP development and review, extensive input from independent scientists, and coordination with federal fish and wildlife agencies with respect to ESA requirements. Consistent with the requirements of the NCCPA, the NHP further provides a multifaceted approach to provide for the conservation and management of covered species and their habitats, incorporating a conservation strategy that provides for the protection of habitat, natural communities, and species diversity on an ecosystem level; establishes conservation measures, including measures sufficient to fully mitigate the effects of covered activities; integrates adaptive management strategies that can be modified based on new information developed through monitoring; and sets out a detailed implementation program, including provisions that ensure adequate funding to carry out the NHP.

The NHP addresses all of the requirements of the NCCPA for aquatic,\(^\text{15}\) wetland, and terrestrial covered species of wildlife and plants and Plan Area natural communities affected by NHP.

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\(^{13}\) Fish and Game Code § 2081(b)(2).

\(^{14}\) Fish and Game Code § 2800 et seq.

\(^{15}\) The NHP covers terrestrial species that use aquatic habitats (e.g., giant garter snake), but does not cover fish species.
actions. On that basis, DFW may issue permits for the taking of the species proposed for coverage under the NHP.  

1.3.4 Relationship between the NHP and Other Federal and State Laws and Regulations

This section describes the relationships between the NHP and other federal and state laws and environmental regulations.

1.3.4.1 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) 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. Taking is defined more narrowly under the MBTA than under the ESA and includes only the death or injury of individuals of a migratory bird species or their eggs. Take under the MBTA does not include the concepts of harm and harassment as defined by the ESA. The MBTA defines migratory birds broadly and all covered birds in this NHP are listed as migratory birds under the MBTA.

The USFWS has developed policy guidance regarding the incidental take of bird species that are listed as threatened or endangered under the ESA but are also protected under the Migratory Bird Treaty Act of 1918. According to these guidelines, an incidental take permit can function as a Special Purpose Permit under the MBTA for the take of all ESA-listed covered species in the amount and/or number and 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 is the only bird species covered by the NHP that is currently listed under the ESA. Measures set forth in the Conservation Strategy to minimize and mitigate impacts to covered species will provide a significant “benefit to the migratory bird resource” as required by the MBTA regulations to obtain a Special Purpose Permit. Therefore, if any of the covered birds become listed under the ESA during the permit term, the ESA permit would also constitute an MBTA Special Purpose Permit for that species for a three-year term as specified under 50 CFR section 21.27 of the regulations, subject to renewal by the Permittees. Until a covered bird species is listed under the ESA, however, it will be the responsibility of individual project applicants to fully comply with the MBTA. Project applicants, however, will be required to implement the applicable NHP avoidance and minimization measures described in Section 5.4.4 which are expected to result in compliance with the MBTA.

16 Fish and Game Code § 2835.
19 50 CFR 21.27.
20 Likewise, migratory birds that are not specifically covered by the NHP will benefit from seasonal restrictions on construction and other conservation measures described in this Plan.
1.3.4.2 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.”21 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.22 Specifically, section 404 authorizes the U.S. Army Corps of Engineers (USACE) to issue permits for and 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 to consist of rivers, creeks, streams, and lakes extending to their headwaters, including adjacent wetlands.23

Responsibility for the implementation of section 404 of the CWA is shared by the U.S. Environmental Protection Agency (EPA) and USACE. EPA is generally responsible for establishing policy and guidance regarding the implementation of the program. For instance, EPA developed the guidelines that are used to evaluate the sufficiency of section 404 permit applications, and has played the lead role in determining the scope of the federal government’s jurisdiction over aquatic resources, including the reach of the term waters of the United States. EPA also determines the eligibility of a state to assume responsibility for portions of the section 404 program.24 On the other hand, USACE is responsible for the day-to-day administration of the section 404 permit program.

Some of the actions that will be implemented under the NHP 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 NHP actions will receive such authorizations through both General Permits and Individual Permits. Typically, General Permits apply to specific classes of activities that have been determined to cause no more than minimal impact to the aquatic environment (e.g., construction of road crossings, installation of utility lines, and operations and maintenance activities).25 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. Substantively, USACE must evaluate applications for Individual Permits to determine their consistency with the requirements of the section 404(b)(1) Guidelines26 and USACE regulations.27

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23 33 CFR § 328.3(a)(3).
24 The 1977 amendments to the CWA provided that states can assume the federal 404 program provided that the state has a “comparable” program. State program assumption of 404 is only available for non-navigable waters so that even in states where the program has been assumed, the federal government retains control over activities in navigable waters. Only two states, Michigan and New Jersey, have assumed the 404 program to date. In states with assumed 404 programs, the state authorization is the only one required.
25 33 CFR § 325.5(c).
27 33 CFR Part 325.
1.3.4.3 California Fish and Game Section 1600 et seq.

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

Section 1602 of the California Fish and Game Code requires any person, state or local governmental agency to provide advance written notification to DFW prior to initiating any activity that would (1) divert or obstruct the natural flow of, or substantially change or remove material from the bed, channel, or bank of any river, stream, or lake; or (2) result in the disposal or deposition of debris, waste, or other material into any river, stream, or lake. The state definition of “lake, rivers, and streams” includes all rivers or streams that flow at least 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.

Certain actions that will be implemented under the NHP will require Streambed Alteration Agreements under section 1602. As part of that process, DFW will review notifications submitted by the NHP Permittees or third-party participants to determine if the proposed project would impact existing fish and wildlife resources that are directly dependent on a lake, river, or stream. If DFW 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. If DFW 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.

1.3.4.4 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 U.S.C. 668–668c)(BGEPA) prohibits anyone, without a permit issued by the Secretary of the Interior, from “taking” bald eagles or golden eagles, including their parts, nests, or eggs. The BGEPA defines “take” as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.” The Service published a Final Eagle Permit Rule on September 11, 2009 to implement the take permit provision of the BGEPA (16 U.S.C. 668a–668d and 50 CFR 22.26). The Permit Rule authorizes limited issuance of permits to take bald and golden eagles where the take is associated with, but not the purpose of, an otherwise lawful activity (74 FR 46836, September 11, 2009). The permit authorizes take of bald eagles and golden eagles where the take is compatible with the preservation of the bald eagle and the golden eagle; is necessary to protect an interest in a particular locality; is associated

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28 Fish and Game Code § 1602.
29 14 California Code of Regulations (CCR) § 1.72.
30 Fish and Game Code § 1602(a)(4)(A)(i).
31 Fish and Game Code § 1603(a).
1 with, but not the purpose of the activity; and for individual instances of take, the take cannot
2 practicably be avoided.

3 1.3.4.5 California Fully Protected Species

4 Prior to the enactment of CESA, the California Legislature identified species for specific
5 protection under the California Fish and Game Code. These fully protected species may not be
6 taken or possessed at any time, and no licenses or permits may be issued for their take except for
7 collecting these species for necessary scientific research or for relocation of the bird species for
8 the protection of livestock. Fully protected species are described in sections 3511 (birds), 4700
9 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game
10 Code. These protections state that “…no provision of this code or any other law shall be
11 construed to authorize the issuance of permits or licenses to take any fully protected [bird],
12 [mammal], [reptile or amphibian], [fish].” On October 8, 2011 California Senate Bill 618
13 (SB618) was signed into law. The bill revises the definition of “covered species” under the
14 NCCPA to include fully protected species. As a result of SB618, the “taking” of fully protected
15 species can now be authorized in cases where the take is incidental and the fully protected
16 species is being conserved and managed under an NCCP approved by DFW. The NHP seeks
17 take authorization for one fully protected species, the white-tailed kite.

18 1.3.4.6 California Fish and Game Code 3503 (Bird Nests)

19 Section 3503 of the Fish and Game Code makes it unlawful to take, possess or needlessly
20 destroy the nests or eggs of any bird, unless otherwise permitted by the Fish and Game Code.
21 The NHP contains conservation measures to minimize take for covered species, and will serve as
22 a basis for compliance with section 3503.

23 1.3.4.7 California Fish and Game Code 3503.5 (Birds of Prey)

24 Section 3503.5 of the Fish and Game Code prohibits the take, possession or destruction of any
25 birds of prey or their nests or eggs, unless otherwise permitted by the Fish and Game Code. The
26 DFW may issue permits authorizing take pursuant to the CESA or NCCPA. The NHP contains
27 conservation measures to minimize such take and will serve as a basis for compliance with
28 section 3503.5.

29 1.3.4.8 National Environmental Policy Act

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

The issuance by the USFWS of an incidental take permit under section 10 of the ESA constitutes a federal action that is subject to NEPA. To satisfy NEPA requirements, the USFWS released a draft EIS on _________ for a 90-day comment period that closed on _____________. The final EIS accompanies this final NHP.

1.3.4.9 California Environmental Quality Act

The California Environmental Quality Act (CEQA) is similar to but more extensive than NEPA in that it requires that significant environmental impacts of proposed projects be reduced to a less-than-significant level through the adoption of feasible avoidance, minimization, or mitigation measures unless overriding considerations are identified and documented.

The JPA is serving as the lead agency under CEQA. To comply with CEQA, the JPA released a draft joint environmental impact report/environmental impact statement (EIR/EIS) on _______. The public comment period on the EIR/EIS closed on _____________, and the final EIR/EIS was certified by the JPA on _____________.

1.3.4.10 National Historic Preservation Act

The National Historic Preservation Act (NHPA) of 1996, as amended (16 U.S.C § 470 et seq.), requires federal agencies to take into account the effects of federal undertakings on historic properties 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 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 ESA, including the NHP’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 NHP EIR/EIS will address compliance of NHP conservation actions with section 106 of the NHPA.

1.3.4.11 Relationship to Other Planning Efforts

This section provides brief descriptions of the relationships between the NHP and other regional planning efforts within Yolo County and adjacent to Yolo County, including other HCPs and NCCPs. The preponderance of NHP conservation actions are expected to be implemented within unincorporated Yolo County.
1.3.4.11.1 Relationship with the Yolo County General Plan

On November 10, 2009, the Yolo County Board of Supervisors adopted the 2030 Countywide General Plan – the document that determines land use planning throughout the unincorporated area. The General Plan provides comprehensive and long-term policies for the physical development of the County. The General Plan update was developed in a manner that anticipated the approval and implementation of the NHP and its incorporation into the Conservation and Open Space Element of the General Plan.

The General Plan reflects a number of goals, policies, and actions that form the foundation of the NHP. For example, General Plan Goal CO-2 seeks to “[p]rotect and enhance biological resources through the conservation, maintenance, and restoration of key habitat areas and corresponding connections that represent the diverse geography, topography, biological communities, and ecological integrity of the landscape.” In addition, there are numerous General Plan policies that serve to meet the goal of biodiversity protection, including Policy CO-1.1, which seeks to “[e]xpand and enhance an integrated network of open space to support recreation, natural resources, historic and tribal resources, habitat, water management, aesthetics, and other beneficial uses.” The General Plan also includes a set of 12 Implementation Actions that will help facilitate the implementation of the NHP. For example, Action CO-25 directs the County to “develop a conservation strategy that considers the preservation and protection of intact functioning landscapes, watersheds, and landscape corridors” and Action CO-A26 directs the County to “integrate the HCP/NCCP (Natural Heritage Program) into the General Plan as appropriate.”

1.3.4.11.2 Relationship with Other Regional HCP/NCCPs

Several of the counties adjacent to Yolo County have developed or are in the process of developing regional habitat conservation plans (Figure 1–2). The most relevant of these efforts to the NHP are the Solano Multi-Species HCP, South Sacramento HCP, Natomas Basin HCP, and Yuba-Sutter NCCP/HCP. In addition, the California Department of Water Resources is currently collaborating with other public water agencies and various stakeholders to develop an HCP/NCCP for the Bay Delta. A number of habitats, vegetation communities, and covered species addressed by the NHP occur within these other plan areas. The NHP recognizes that an effective conservation program for species and habitats must take into account resources that occur outside Yolo County’s jurisdictional boundaries. To this end, the NHP’s Conservation Strategy was shaped in part by the resource values of the larger region and includes measures to complement the strategies of other planning efforts, including providing linkages to existing conserved lands and to adjacent habitat areas outside of the Plan Area.
Figure 1-2. Regional HCPs and NCCPs Adjacent to the NHP Plan Area
1.3.4.11.3 Relationship with Other HCP Efforts in Yolo County

A number of low-effect HCPs are being undertaken within the NHP’s Plan Area. These include a single-species HCP proposed by UC Davis; a multi-county HCP proposed by Pacific Gas & Electric; a multi-county HCP by SMUD; and a single-species HCP proposed by AT&T, all of which are at various stages of completion. The NHP Conservation Strategy was developed using the most current available information about these related planning efforts. With the exception of the UC Davis HCP, discussed further in Section 3.2.1.3, the NHP is not intended to provide additional regulatory benefits to other HCPs in Yolo County.

1.3.4.11.4 Relationship to the Bay Delta Conservation Plan

The Bay Delta Conservation Plan (BDCP) is an HCP/NCCP covering State Water Project and Federal Water Project new construction in, diversions from, and associated ecosystem restoration actions within the Sacramento-San Joaquin River Delta. Development of the BDCP is led by the California Natural Resources Agency and Department of Water Resources. The BDCP plan area overlaps with the NHP Plan Area in the portion of NHP Plan Area encompassed by the statutory Delta, including the Yolo Bypass, parts of West Sacramento and vicinity, and the Clarksburg area, and an area outside of the statutory Delta west of and adjacent to the Yolo Bypass south of Interstate 80 (Figure 1–2). Proposed BDCP conservation actions to enhance fish and wildlife habitat would have effects in the NHP Plan Area, particularly in the Yolo Bypass. Coordination was conducted during development the NHP and BDCP regarding areas of geographic and species conservation overlap of the two plans. The JPA is currently coordinating with the BDCP, USFWS, and DFW to resolve the following issues related to implementation of both plans within the area of overlap.

1. The mechanism(s) for achieving NHP and BDCP conservation objectives in the area of overlap between the plans.
2. Mitigation for BDCP impacts outside of the NHP Plan Area within the NHP Plan Area and mitigation for BDCP impacts inside the NHP Plan Area outside of the NHP Plan Area.
3. Assurances regarding Yolo HCP/NCCP permit commitments should BDCP actions preclude fulfillment of those commitments.
4. Consistency of BDCP and Yolo HCP/NCCP implementation actions (e.g., mitigation requirements for biological resources impacted by both plans and criteria for the assembly of the conservation lands system).
5. Managing acquisition of conservation lands to avoid or minimize increased costs and other effects on NHP implementation that could result from competition for conservation lands between the plans.

32 The statutory Sacramento-San Joaquin Delta as defined in the California Water Code, Section 12220.
1.3.4.11.5 Relationship with Other Delta Planning Efforts

The California Delta Protection Act of 2009 mandates the completion of comprehensive plans intended to advance the coequal goals of providing a more reliable water supply for California and protecting, restoring and enhancing the Delta ecosystem. Specifically, the Act establishes the Delta Stewardship Council, which is in the process of preparing a comprehensive management plan known as the Delta Plan. The Delta Plan is expected to impose certain restrictions on local governments, and may be applicable to approved HCP/NCCPs in the five Delta counties. The JPA may, for example, need to certify that the NHP is consistent with the Delta Plan as part of the process through which wildlife agencies approve the NHP. In addition, the JPA may need to certify that conservation actions to implement the NHP that trigger CEQA are consistent with the Delta Plan. The Act also establishes the Sacramento-San Joaquin Delta Conservancy, which will function as the State’s primary agency to implement ecosystem restoration in the Delta through the acquisition of real property interests from willing sellers. The Conservancy is in the process of preparing a Strategic Plan to guide those efforts. These related planning efforts affect a significant portion of the NHP Plan Area; consequently, ongoing coordination with the NHP will be required.

1.4 SCOPE OF THE NHP

1.4.1 Geographic Scope of the NHP Plan Area

The Plan Area for the NHP, depicted in Figure 1–3, encompasses all areas within the boundaries of Yolo County that are eligible for regulatory coverage under the NHP. The Plan Area was subdivided into 22 geographically based Planning Units (Figure 1–3) to facilitate development of the NHP’s Conservation Strategy (see Chapter 5, Conservation Strategy) and the analysis of potential impacts associated with implementation of the covered activities (see Chapter 4, Impact Assessment and Estimated Level of Take).

Existing and planned conservation areas identified in other conservation plans were factored into the NHP Conservation Strategy to help advance regional conservation goals, such as larger-scale landscape connectivity.

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33 Portions of Yolo County that are excluded from regulatory coverage include federal lands and tribal lands.
Figure 1-3. NHP Plan Area and Planning Units
1.4.2 Natural Communities

The natural communities addressed by the NHP include grasslands, shrublands and scrub, woodlands and forest, riparian and wetlands, and agriculture; although agriculture is not a natural community, it provides important habitat for a number of covered species and so is included here. Each of the natural communities is comprised of certain land cover types as listed below.

These communities and habitat types are defined in Chapter 2, *Existing Ecological Conditions*.

- **Grasslands**
  - Annual grassland
  - Serpentine

- **Shrublands and Scrub**
  - Chamise Alliance
  - Mixed chaparral

- **Woodlands and Forest**
  - Blue oak – foothill pine
  - Blue oak woodland
  - Closed-cone pine-cypress
  - Eucalyptus
  - Juniper
  - Montane hardwood
  - Valley oak woodland

- **Riparian and Wetlands**
  - Alkali sink
  - Fresh emergent wetland
  - Valley foothill riparian
  - Vernal pool complex
  - Lacustrine and riverine

- **Agriculture**
  - Citrus/subtropical
  - Deciduous fruits/nuts
  - Field crops
  - Grain/hay crops
  - Pasture
  - Rice
Semiagricultural/incidental to agriculture

- Truck/nursery/berry crops
- Vineyard

The nonagricultural developed landscape subtypes of the cities, suburbs, and other human developments are classified as “barren and urban” cover types that are not considered natural communities because they typically provide low-value habitat for native species and are subject to ongoing human disturbances. The barren cover type also includes unvegetated gravel and sand bars and rock outcrops.

1.4.3 Covered Species

The NHP was designed to provide the basis for regulatory coverage for 32 species, including 13 species currently listed (either state or federal, including jointly listed species) and 19 species that are not listed but have the potential to become listed during the term of the Permits (Table 1-2). These species, for which incidental take coverage is sought, are collectively referred to as “covered species.” The list was developed through a screening and evaluation process that considered a total of 175 species (See Appendix C, Evaluation of Species Considered for Coverage). Species considered for coverage were evaluated based on criteria that included the geographic range, listing status, existing and future effects of covered activities, and adequacy of existing data on the species. The covered species list includes most of the species that were identified in the 2004 Planning Agreement (Yolo County et al. 2004).

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34 Although the barren and urban cover types are not included as natural communities, some lands supporting these land cover types are suitable for restoration of covered species’ habitats and may be acquired for this purpose.

35 The Federal Register notice for the NHP EIS indicated coverage would be provided for 35 species. Species, were removed and added to the covered species list after the notice was prepared according to the criteria and analysis provided in Appendix C, Evaluation of Species Considered for Coverage.
### Table 1-2. NHP Covered Species

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Status Federal/State/Other¹</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plants</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Alkali milkvetch</td>
<td>Astragalus tener var. tener</td>
<td>-/-/1B</td>
</tr>
<tr>
<td>2 Brittlescale</td>
<td>Atriplex depressa</td>
<td>-/-/1B</td>
</tr>
<tr>
<td>3 San Joaquin spearscale</td>
<td>Atriplex joaquinana</td>
<td>-/-/1B</td>
</tr>
<tr>
<td>4 Palmate-bracted bird’s-beak</td>
<td>Chloropyron palatum²</td>
<td>E/E/1B</td>
</tr>
<tr>
<td>5 Heckard’s pepper-grass</td>
<td>Lepidium latipes var. heckardii</td>
<td>-/-/1B</td>
</tr>
<tr>
<td>6 Baker’s navarretia</td>
<td>Navarretia leucocephala ssp. bakeri</td>
<td>-/-/1B</td>
</tr>
<tr>
<td>7 Colusa grass</td>
<td>Neostaphia colusana</td>
<td>T/E/1B</td>
</tr>
<tr>
<td>8 Solano grass</td>
<td>Tuctoria mucronata</td>
<td>E/E/1B</td>
</tr>
<tr>
<td><strong>Invertebrates</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Conservancy fairy shrimp</td>
<td>Branchinecta conservatio</td>
<td>E/-/-</td>
</tr>
<tr>
<td>10 Vernal pool fairy shrimp</td>
<td>Branchinecta lynchii</td>
<td>T/-/-</td>
</tr>
<tr>
<td>11 Midvalley fairy shrimp</td>
<td>Branchinecta mesovallensis</td>
<td>-/-/-</td>
</tr>
<tr>
<td>12 California linderiella</td>
<td>Linderiella occidentalis</td>
<td>-/-/-</td>
</tr>
<tr>
<td>13 Vernal pool tadpole shrimp</td>
<td>Lepidurus packardi</td>
<td>E/-/-</td>
</tr>
<tr>
<td>14 Valley elderberry longhorn beetle</td>
<td>Desmocerus californicus dimorphus</td>
<td>T/-/-</td>
</tr>
<tr>
<td><strong>Amphibians</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 California tiger salamander</td>
<td>Ambystoma californiense</td>
<td>T/T/-</td>
</tr>
<tr>
<td>16 Western spadefoot toad</td>
<td>Spea hammondii</td>
<td>-/CSC/-</td>
</tr>
<tr>
<td>17 Foothill yellow-legged frog</td>
<td>Rana boylii</td>
<td>-/CSC/-</td>
</tr>
<tr>
<td><strong>Reptiles</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 Western pond turtle</td>
<td>Actinemys marmorata</td>
<td>-/CSC/-</td>
</tr>
<tr>
<td>19 Giant garter snake</td>
<td>Thamnophis gigas</td>
<td>T/T/-</td>
</tr>
<tr>
<td><strong>Birds</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 Swainson’s hawk</td>
<td>Buteo swainsoni</td>
<td>-/-T/-</td>
</tr>
<tr>
<td>21 Northern harrier</td>
<td>Circus cyaneus</td>
<td>-/CSC/-</td>
</tr>
<tr>
<td>22 White-tailed kite</td>
<td>Elanus leucurus</td>
<td>-/FP/-</td>
</tr>
<tr>
<td>23 Black tern</td>
<td>Chlidonias niger</td>
<td>-/CSC/-</td>
</tr>
<tr>
<td>24 Western yellow-billed cuckoo</td>
<td>Coccyzus americanus occidentalis</td>
<td>C/E/-</td>
</tr>
<tr>
<td>25 Western burrowing owl</td>
<td>Athene cunicularia hypugaea</td>
<td>-/CSC/-</td>
</tr>
<tr>
<td>26 Loggerhead shark</td>
<td>Lanius ludovicianus</td>
<td>-/CSC/-</td>
</tr>
<tr>
<td>27 Least Bell’s vireo</td>
<td>Vireo bellii pusillus</td>
<td>E/-/-</td>
</tr>
<tr>
<td>28 Bank swallow</td>
<td>Riparia riparia</td>
<td>-/-T/-</td>
</tr>
<tr>
<td>29 Yellow-breasted chat</td>
<td>Icteria virens</td>
<td>-/CSC/-</td>
</tr>
<tr>
<td>30 Grasshopper sparrow</td>
<td>Ammodramus savannarum</td>
<td>-/CSC/-</td>
</tr>
<tr>
<td>31 Tricolored blackbird</td>
<td>Agelaius tricolor</td>
<td>-/CSC/-</td>
</tr>
<tr>
<td><strong>Mammals</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32 Townsend’s big-eared bat</td>
<td>Corynorhinus townsendii</td>
<td>-/CSC/-</td>
</tr>
</tbody>
</table>

¹Status:
- Federal
- E = Listed as endangered under ESA
- T = Listed as threatened under ESA
- PT = Proposed for listing as threatened under ESA
- C = Candidate for listing under ESA
- California Native Plant Society (CNPS)
- 1B = Rare or endangered in California and elsewhere

²Formerly Cordylanthus palmatus.

Federal
E = Listed as endangered under ESA
T = Listed as threatened under ESA
PT = Proposed for listing as threatened under ESA
C = Candidate for listing under ESA
California Native Plant Society (CNPS)
IB = Rare or endangered in California and elsewhere

State
E = Listed as endangered under CESA
T = Listed as threatened under CESA
CSC = California species of special concern
FP = Fully protected under the California Fish and Game Code
1.4.4 Local Concern Species

In addition to the covered species, there are other species known to occur in the Plan Area that are rare, declining, or potentially threatened by land use changes and are of concern to local organizations. While many of these species have special-status designations, they do not meet the criteria used to select covered species (see Appendix C, Evaluation of Species Considered for Coverage). The Advisory Committee designated 42 species as “local concern species” (Table 1-3) (see Section 1.4.7.2, Role of the Advisory Committee). While these local concern species and other species may be addressed during the environmental review process pursuant to the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA), these local concern species are not the focus of the NHP and are not proposed for coverage under ESA, NCCPA, or CESA. The NHP conservation measures for natural communities (see Chapter 5, Conservation Strategy) are, however, designed to consider the habitat needs of these local concern species and, if warranted, some of these species may qualify for designation as covered species in the future.

Table 1-3. NHP Local Concern Species

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Status (Federal/State/CNPS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Bent-flowered fiddleneck</td>
<td>Amsinckia lunaris</td>
<td>+/-/1B</td>
</tr>
<tr>
<td>2 Jepson’s milk-vetch</td>
<td>Astragalus rattranii var. jepsonianus</td>
<td>+/-/1B</td>
</tr>
<tr>
<td>3 Ferris’ milk-vetch</td>
<td>Astragalus tener var. ferrisiae</td>
<td>+/-/1B</td>
</tr>
<tr>
<td>4 Heartscale</td>
<td>Atriplex cordulata</td>
<td>+/-/1B</td>
</tr>
<tr>
<td>5 Vernal pool smallscale</td>
<td>Atriplex persistens</td>
<td>+/-/1B</td>
</tr>
<tr>
<td>6 Round-leaved fillaree</td>
<td>California macrophylla</td>
<td>+/-/1B</td>
</tr>
<tr>
<td>7 Snow Mountain buckwheat</td>
<td>Eriogonum nervulosum</td>
<td>+/-/1B</td>
</tr>
<tr>
<td>8 Adobe-lily</td>
<td>Fritillaria pluriflora</td>
<td>+/-/1B</td>
</tr>
<tr>
<td>9 Hall’s harmania</td>
<td>Harmonia hallii</td>
<td>+/-/1B</td>
</tr>
<tr>
<td>10 Drymaria-like western flax</td>
<td>Hesperolinon drymarioides</td>
<td>+/-/1B</td>
</tr>
<tr>
<td>11 Rose mallow</td>
<td>Hibiscus lasiocarpus</td>
<td>+/-/2.2</td>
</tr>
<tr>
<td>12 Delta tule pea</td>
<td>Lathyrus jeppsonii var. jeppsonii</td>
<td>+/-/1B</td>
</tr>
<tr>
<td>13 Colusa layia</td>
<td>Layia septentrionalis</td>
<td>+/-/1B</td>
</tr>
<tr>
<td>14 Mason’s lilaeopsis</td>
<td>Lilaeopsis masonii</td>
<td>+/-/R/1B</td>
</tr>
<tr>
<td>15 Bearded popcornflower</td>
<td>Plagiobothrys hystriculus</td>
<td>+/-/1B</td>
</tr>
<tr>
<td>16 Morrison’s jewelflower</td>
<td>Streptanthus morrisonii ssp. morrisonii</td>
<td>+/-/1B</td>
</tr>
<tr>
<td>17 Saline clover</td>
<td>Trifolium depauperatum var.</td>
<td>+/-/1B</td>
</tr>
<tr>
<td>Invertebrates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 Ancient ant</td>
<td>Pyramica reliquia</td>
<td>+/-/-</td>
</tr>
<tr>
<td>19 Molestan beetle</td>
<td>Lytta molesta</td>
<td>+/-/CSC/-</td>
</tr>
<tr>
<td>Amphibians</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 California red-legged frog</td>
<td>Rana draytonii</td>
<td>T/CSC/-</td>
</tr>
<tr>
<td>Birds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21 Redhead</td>
<td>Aythya americana</td>
<td>+/-/CSC/-</td>
</tr>
<tr>
<td>22 Least bittern</td>
<td>Ixobrychus exilis</td>
<td>+/-/CSC/-</td>
</tr>
<tr>
<td>23 Golden eagle</td>
<td>Aquila chrysaetos</td>
<td>+/-/FP/-</td>
</tr>
<tr>
<td>24 Bald eagle</td>
<td>Haliaeetus leucocephalus</td>
<td>D/E, FP/-</td>
</tr>
</tbody>
</table>
Table 1-3. NHP Local Concern Species (Cont’d)

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Status (Federal/State/CNPS)¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>American peregrine falcon</td>
<td><em>Falco peregrinus anatum</em> D/E, FP/-</td>
</tr>
<tr>
<td>26</td>
<td>Prairie falcon</td>
<td><em>Falco mexicanus</em> -/-</td>
</tr>
<tr>
<td>27</td>
<td>California black rail</td>
<td><em>Laterallus jamaicensis coturniculus</em> -/T, FP/-</td>
</tr>
<tr>
<td>28</td>
<td>Western snowy plover</td>
<td><em>Charadrius alexandrinus nivosus</em> T/CSC/-</td>
</tr>
<tr>
<td>29</td>
<td>Mountain plover</td>
<td><em>Charadrius montanus</em> PT/CSC/-</td>
</tr>
<tr>
<td>30</td>
<td>Short-eared owl</td>
<td><em>Asio flammeus</em> -/CSC/-</td>
</tr>
<tr>
<td>31</td>
<td>Long-eared owl</td>
<td><em>Asio otus</em> -/CSC/-</td>
</tr>
<tr>
<td>32</td>
<td>Purple martin</td>
<td><em>Progne subis</em> -/CSC/-</td>
</tr>
<tr>
<td>33</td>
<td>Yellow-billed magpie</td>
<td><em>Pica nuttalli</em> -/-</td>
</tr>
<tr>
<td>34</td>
<td>Oak titmouse</td>
<td><em>Baeolophus inornatus</em> -/-</td>
</tr>
<tr>
<td>35</td>
<td>Sage sparrow</td>
<td><em>Amphispiza belli</em> -/-</td>
</tr>
<tr>
<td>36</td>
<td>Yellow-headed blackbird</td>
<td><em>Xanthocephalus xanthocephalus</em> -/CSC/-</td>
</tr>
<tr>
<td>37</td>
<td>Ringtail</td>
<td><em>Bassariscus astutus</em> -/-</td>
</tr>
<tr>
<td>38</td>
<td>Pallid bat</td>
<td><em>Antrozous pallidus</em> -/CSC/-</td>
</tr>
<tr>
<td>39</td>
<td>Western red bat</td>
<td><em>Lasiurus blossevillii</em> -/CSC/-</td>
</tr>
<tr>
<td>40</td>
<td>San Joaquin pocket mouse</td>
<td><em>Perognathus inornatus inornatus</em> -/-</td>
</tr>
<tr>
<td>41</td>
<td>American badger</td>
<td><em>Taxidea taxus</em> -/CSC/-</td>
</tr>
<tr>
<td>42</td>
<td>Sacramento Valley red fox</td>
<td><em>Vulpes vulpes ssp. nov.</em> -/-</td>
</tr>
</tbody>
</table>

¹Status:
Federal
E = Listed as endangered under ESA
T = Listed as threatened under ESA
PT = Proposed for listing as threatened under ESA
C = Candidate for listing under ESA
D = Delisted under ESA
California Native Plant Society (CNPS)
1B = Rare or endangered in California and elsewhere
2.2 = Rare or endangered in California, but more common elsewhere

Mammals

1.4.5 Covered Activities

A primary purpose of the NHP is to obtain authorization for the incidental take of species under the ESA and NCCPA for a variety of public and private activities that occur or are likely to occur within Yolo County. By covering a broad range of activities, the NHP facilitates comprehensive protection of the covered species and other 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 NHP sets out four broad classes of activities for which take coverage is being sought, including urban development, infrastructure projects, agricultural activities, and certain conservation-related actions. The types of activities and specific projects covered are identified in Chapter 3, Covered Activities, and include the following:
• Residential, industrial, and commercial development as identified in the 2030 Countywide General Plan (Yolo County 2009) and currently adopted General Plans for the cities (City of Davis 2007; City of Woodland 2002; City of West Sacramento 2008; City of Winters 1992) and the UC Davis campus master plan (UC Davis 2003, updated 2006);

• Public and private infrastructure development and operations and maintenance, including those related to existing and future transportation, utilities, solar energy development, recreational facilities, flood control and water conservation, and other infrastructure projects;

• Agricultural and livestock management facilities and operations;

• Aggregate mining; and

• Conservation-related activities, including management of NHP conservation lands.

1.4.6 Permit Duration

The JPA is seeking take permits from the USFWS and DFW that remain in effect for a term of 50 years. A 50-year term was selected to accommodate the local growth forecast in the general plans of the Permittees, while recognizing that current economic conditions are causing growth to occur later than forecast. As such, it is expected that it may take considerably longer to realize the growth that is identified within these General Plans and proposed to be covered by the NHP. The 50-year timeframe is also necessary to allow for the full implementation of the NHP Conservation Strategy and to maximize the ecological benefits of the NHP.

1.4.7 Overview of the Planning Process

1.4.7.1 Role of the JPA

The JPA was formed in 2002 by the County, the incorporated cities of Davis, West Sacramento, Winters, and Woodland, and the UC Davis for the purpose of overseeing the development of a regional conservation plan for Yolo County. The JPA Board of Directors, which consists of elected representatives appointed by the member jurisdictions and an ex officio nonvoting representative from UC Davis, has two primary functions: (1) to assist in the planning, preparation, and subsequent administration of the NHP; and (2) to facilitate acquisition of conservation easements to preserve habitat to mitigate for certain impacts to Swainson’s hawk foraging habitat. The JPA’s role in overseeing the Swainson’s hawk mitigation program arose out of a 2002 Memorandum of Understanding between the JPA and DFW that established a process to allow for land development activities to proceed during the development of the NHP.

In 2005, the JPA entered into a Planning Agreement (see Appendix J, Yolo NHP Planning Agreement) with the DFW and the USFWS, pursuant to the NCCPA, that set out the initial scope of the program and defined the roles and responsibilities of the parties in the development of the
NHP. The Planning Agreement has helped guide the NHP planning process and define the initial scope of the effort. Among other things, the Planning Agreement identified 28 species to be considered for coverage under the NHP (see Section 1.4.3, Covered Species, and Appendix C, Evaluation of Species Considered for Coverage).  

1.4.7.2 Role of the Advisory Committee

In 2004, the JPA appointed the NHP Advisory Committee to provide input and advice during the development of the NHP. The Advisory Committee consists of representatives of the primary groups (“stakeholders”) with an interest in the NHP, including landowners; the agricultural community; conservation organizations; land developers; scientists; flood control, water supply, and land use agencies; the academic community; and members of the public-at-large. The group held open meetings on a regular basis (generally bimonthly) 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 consensus when possible. Through this process, the Advisory Committee provided recommendations to the JPA Board on a range of matters reflected in the NHP.

Advisory Committee member agencies and organizations are listed in Table 1-4. Members were selected on the basis of 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                                                                                                                                         |
| 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 & 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 NHP:

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36 The Planning Agreement expired on February 8, 2013 and the JPA is in the process of seeking an extension from DFW.
37 The Advisory Committee was formerly known as the Steering Advisory Committee or “SAC” with the name changed to “Advisory Committee” in 2012.
38 See Chapter 10, List of Preparers for past and present Advisory Committee representatives.
• 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 NHP.

• Partnerships that promote the NHP 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.

• The process and the NHP 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 NHP’s goals and objectives.

• The NHP shall assemble a shared knowledge base that describes the key concepts of the NHP planning process.

• The NHP is based on willing participants, landowners, and sellers interested in preserving their land and the predominantly rural and agricultural character of Yolo County for future generations.

• The NHP shall be based on a strong scientific foundation.

• The NHP shall encourage farm and rangeland management practices that are compatible with species and habitat conservation objectives.

• The goal of the NHP 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 subcommittee working groups, which focused on specific issues regarding development of the NHP, including the Biological Working Group, Agriculture Working Group, Urban Interface Working Group, and Riparian Resources Working Group. The subcommittees met on an ad hoc basis, at times monthly or bimonthly, to consider how NHP components—including scientific data and analysis, approaches to conservation strategies, adaptive management and monitoring—should be shaped in relation to the specific issues of each working group. The results of workgroup deliberations were used in the development of the Conservation Strategy (see Chapter 5).
In 2013, the JPA initiated a process to review and resolve remaining substantive NHP planning and implementation issues. The Advisory Committee reviewed and provided input to four “issue papers” prepared by the JPA that served as the framework for resolving these issues with USFWS and DFW. The four issue papers addressed the JPA’s proposed approach for conserving agricultural habitat values for covered species during the 50 year NHP permit period, NHP coordination and implementation issues related to implementation of BDCP conservation actions within the NHP Plan area (see Section 1.3.4.11, Relationship to Other Planning Efforts), the JPA’s proposed approach for conserving Swainson’s hawk, and the JPA’s proposed approach for conserving giant garter snake.

1.4.8 Coordination with Federal and State Agencies

The JPA held regular technical meetings with USFWS and DFW to discuss specific agency concerns related to administrative draft document sections. These agencies provided technical input on the baseline data, covered species list, covered species accounts, existing ecological conditions report, covered activities, impact analysis, and the Conservation Strategy. USFWS and DFW involvement also included attendance at Advisory Committee meetings and regular communications with and attendance at meetings of the JPA Board. USFWS and DFW reviewed and commented on each of the 2013 issue papers (see Section 1.4.7.2, Role of the Advisory Committee) that describe substantive issues remaining with the NHP and engaged in Advisory Committee discussions about these papers. In addition, the USFWS and DFW assisted the JPA with securing sufficient grant funding to prepare the NHP.

1.4.9 Public Participation and Engagement

The NCCPA requires the establishment of a process for public participation and outreach throughout the development of a plan. Similarly, policies governing the ESA emphasize the importance of public involvement in the development of large-scale HCPs, and encourage plan participants to seek the engagement of the public. At the initial stage of the NHP planning process, an outreach program was developed to create a wide range of opportunities for the public to learn about the various elements of the NHP and to 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 discussed by the Advisory Committee, including its Working Groups, were made available to the public. At NHP meetings, both oral and written public comments were received by the Advisory Committee, and comments received in writing were posted to the website. The notes and records of Advisory Committee meetings also reflected comments and input offered by the public.

39 Fish and Game Code § 2815.
40 USFWS 2000a.
Throughout the planning process, representatives of the NHP conducted dozens of briefings for community organizations, local jurisdictions within and adjacent to the Plan Area, and environmental organizations. Public presentations were made throughout the Plan Area, and information about the NHP was regularly distributed through a quarterly newsletter and through updated fact sheets explaining the purpose of the NHP and describing its various components. Additional public outreach and involvement activities were conducted around major milestones in the planning process, and in compliance with NEPA and CEQA environmental review processes.

To further facilitate the dissemination of information, the JPA has maintained a NHP website. The website provides draft chapters, appendices, and sections of the NHP during NHP development; information on landscapes, natural communities, and covered species; maps and documents related to the NHP; schedule information on Advisory Committee meetings with agendas, handouts, and meeting summaries; contact information for the JPA and means for leaving direct comments; and links to other relevant websites, including DFW, USFWS, and other nearby HCPs and NCCPs.

1.4.10 **Integration of Science**

Use of the best available science is a priority for the NHP and to ensure that the best scientific information was being used, the JPA and Advisory Committee, in 2006, coordinated to assemble an independent science advisors group composed of experts in conservation ecology and the specific biological resources in the Plan Area. A science advisor facilitator was hired to assist in the formation of and to coordinate with the Independent Science Advisors. A draft of the science advisory report was provided to the JPA and Stakeholder Committee in May of 2006, and the final science advisory report on the NHP was released in March 2007 (see Appendix I, *Independent Science Advisors Reports*).

The Independent Science Advisors Report summarizes recommendations from the Independent Science Advisors for the NHP. This NCCPA required scientific input was provided early in a planning process, before preparation of the draft NHP, to help ensure that the NHP was developed using best available science. To ensure objectivity, the advisors operated independent of the Permit Applicants, their consultants, and other entities involved in the NHP. The advisors reviewed information prepared by the NHP consultants, attended a workshop, and completed subsequent research and engaged in discussions. The independent science advisors met August 15–16, 2005 to review information gathered for the NHP planning process, hear the concerns of Advisory Committee, tour portions of the Plan Area, and begin formulating recommendations for NHP development and implementation. Advisors were also encouraged to seek expert input from other scientists. Recommendations were provided in the report related to the *Draft Ecological Baseline Report* (July 19, 2005), the scope of the NHP, information gaps, the conservation design, the conservation analyses, and the adaptive management and monitoring. Independent

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Science Advisor recommendations were used to guide subsequent NHP planning. Major recommendations incorporated into the NHP included updating and refining NHP vegetation mapping and conservation design principles. Refer to Appendix I, Independent Science Advisors Report, for additional details.

1.4.11 Organization of the NHP Document

This section provides a brief overview of the contents of the NHP document chapters and appendices. The document consists of 11 chapters and 13 appendices:

- Chapter 1, Introduction: Sets the context for the development of the NHP, including the background, purpose, regulatory context; scope of the NHP; the process that guided the development of the NHP; and an overview of the document contents and organization.

- Chapter 2, Existing Ecological Conditions: Describes the existing environmental conditions within the Plan Area, providing the context in which the NHP 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 NHP conservation lands.

- Chapter 4, Impact Assessment and Estimated Level of Take: Includes an analysis of the beneficial and adverse effects of the covered activities and conservation measures on covered natural communities and covered species within the Plan Area. The chapter also describes the cumulative and indirect effects resulting from the implementation of the NHP Conservation Strategy and the covered activities.

- Chapter 5, Conservation Strategy: Describes the NHP Conservation Strategy, including the biological goals and objectives, approach to conservation adopted by the NHP, conservation measures for species and habitats, and avoidance and minimization measures.

- Chapter 6, Adaptive Management and Monitoring Plan: Describes the NHP adaptive management decision making process and monitoring requirements.

- Chapter 7, Plan Implementation: Addresses matters relating to the implementation of the NHP, including a description of the NHP Implementing Entity, structure and decision-making process; the schedule for the implementation of actions; the monitoring and reporting process to ensure compliance; regulatory assurances anticipated by the Permit Applicants; changed circumstances and the approach to unforeseen circumstances; and a section discussing duration, amendment, renewal and enforcement of Permits.

- Chapter 8, Costs and Funding Sources: Estimates the costs of NHP implementation and the sources of funding that will be relied on by the NHP participants.

- Chapter 9, Alternatives to Take Evaluated: Describes the alternatives to take of covered species that were developed and considered and the reasons why they were not adopted.
1. Chapter 10, *List of Preparers*: Lists the preparers of the NHP.
2. Chapter 11, *References*: Lists the printed references and personal communications cited in the NHP.
3. Appendices, including the following:
   - Appendix A, *Covered Species Accounts*
   - Appendix B, *Local Concern Species Accounts*
   - Appendix C, *Evaluation of Species Considered for Coverage*
   - Appendix D, *Common and Scientific Names of Species Mentioned in the Text*
   - Appendix E, *Yolo County Agricultural Practices*
   - Appendix F, *Agricultural Habitat Valuation and Forecasting Model*
   - Appendix G, *Survey Protocols*
   - Appendix H, *Cost Supporting Materials*
   - Appendix I, *Independent Science Advisors Report*
   - Appendix J, *Yolo NHP Planning Agreement*
   - Appendix K, *Pollinator Conservation Strategy*
   - Appendix L, *Implementing Agreement*
   - Appendix M, *Glossary of Terms*