RECORD OF DECISION

Environmental Impact Statement/Environmental Impact Report for the South Sacramento Habitat Conservation Plan
Sacramento County, California

May 2019

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ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT REPORT for the SOUTH SACRAMENTO HABITAT CONSERVATION PLAN

1.0 INTRODUCTION

This Record of Decision (ROD) was developed by the U.S. Fish and Wildlife Service (Service, USFWS) in compliance with its decision-making requirements, pursuant to the National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. § 4321 et seq.), and in compliance with the NEPA implementing regulations, as amended (40 CFR §1505.2 et seq.). The purpose of this ROD is to document the Service’s decision in response to applications for an Incidental Take Permit (ITP or Permit) under section 10(a)(1)(B) of the Endangered Species Act of 1973 (ESA) as amended (16 United States Code [U.S.C.] § 1531 et seq.). The permit applications were jointly submitted by six local agencies (i.e. the County of Sacramento (County), the City of Galt, the City of Rancho Cordova, the Sacramento County Water Agency (SCWA), the Capital SouthEast Connector Joint Powers Authority (Connector JPA), and the Joint Powers Authority for the South Sacramento Conservation Agency (SSCA) (collectively referred to as the Permit Applicants or the future Permittees). The six Permit Applicants are requesting a permit for the incidental take of 28 species, which would result from the Covered Activities described in the Final South Sacramento Habitat Conservation Plan (Final SSHCP) (County of Sacramento et al. 2018).

The proposed issuance of the ITP is a Federal action that is subject to NEPA compliance. As such, the Service prepared a draft and a final joint Environmental Impact Statement/Environmental Impact Report for the South Sacramento Habitat Conservation Plan (SSHCP EIS/EIR) (USFWS and Sacramento County 2018) to be in compliance with NEPA and with the California Environmental Quality Act, pursuant to NEPA regulations requiring federal agencies to reduce duplication between NEPA and State environmental requirements (see 40 CFR 1506.2). The draft and final SSHCP EIS/EIR describes in detail the proposed action and alternatives to that action. Other documents used in the preparation of this ROD include: the Final SSHCP; the Errata to the Final South Sacramento Habitat Conservation Plan (County of Sacramento et al. 2019a); the South Sacramento Habitat Conservation Plan Cultural Resources Management Plan (County of Sacramento et al. 2019b); the Service’s Intra-Service Biological and Conference Opinion on the Issuance of a Section 10(a)(1)(B) Permit for the South Sacramento County Habitat Conservation Plan (the Opinion) (USFWS 2019a); and the Service’s Findings and Recommendations for the Issuance of a section 10(a)(1)(B) Incidental Take Permit Associated with the South Sacramento County Habitat Conservation Plan (the Findings) (USFWS 2019b). These documents are hereby incorporated by reference. In accordance with the Service’s Opinion, Findings, and this ROD, the Service has decided to issue a section 10(a)(1)(B) Incidental Take Permit to the future Permittees for a term of 50-years.

Pursuant to NEPA regulation 40 CFR §1505.2, this ROD is designed to: (1) state the U.S. Fish and Wildlife Service's decision; (2) identify the alternatives considered in reaching our decision; (3) discuss our preference among the alternatives considered based on relevant factors, including the Service’s statutory mission, economic factors, technical considerations, and consideration of national policy; (4) identify our selected alternative; (5) specify which alternative we consider to be the Environmentally Preferable alternative; (6) state whether all means to avoid or minimize environmental harm from implementation of the selected alternative have been adopted, and if not, why they were not; and (7) identify mitigation measures included in the selected alternative, and summarize the monitoring and enforcement program for that mitigation. In addition, this ROD provides a summary description of the Final SSHCP, summarizes and responds to comments.
received on the final SSHCP EIS/EIR; presents the rationale for the Service’s decision, and describes its implementation.

2.0 PROPOSED ACTION

2.1 Purpose and Need for Federal Action

NEPA regulations require that each EIS briefly specify the underlying purpose and need to which the EIS lead agency is responding in proposing the alternatives, including the proposed action (40 CFR 1502.13). The “need” for agency action refers to an underlying problem or opportunity to which an agency is responding. The “purpose” refers to a goal or objective that the lead agency is trying to achieve, and should be stated, to the extent possible, in terms of desired outcomes (43 CFR 46.420). Because the Covered Activities included in the SSHCP (see below) could result in take of animal Covered Species and result in impacts to plant Covered Species, the Permit Applicants have applied for an ESA section 10(a)(1)(B) permit. In response to the application for incidental take of the Covered Species, the Service is proposing to issue an ITP to the six Permit Applicants.

The purposes of the proposed federal action is to comprehensively protect and conserve multiple ESA and CESA listed species and other native species present in the Plan Area; to provide a means to conserve, enhance, and restore the habitats and ecosystems upon which these native species depend (including aquatic resources and aquatic habitats); and to ensure the long-term survival of these species in the Plan Area for the continuing benefit of the American people. In proposing alternative conservation plans for an HCP in south Sacramento County, the EIS/EIR lead agencies (the Service and Sacramento County) also sought to accommodate expected population growth, and the associated housing, economic development, and infrastructure currently planned for the next 50 years, while maintaining the existing richness of south Sacramento County native species and the existing natural ecosystems and agricultural lands on which the native species depend. The EIS/EIR lead agencies further describe each of these purposes in SSHCP EIS/EIR Chapter 1.3.3.

2.3 Summary of the Final SSHCP (the Proposed Action Alternative)

As described in the Final SSHCP EIS/EIR, our proposed action is the issuance of an ITP covering the 28 species addressed in the Final SSHCP (Sacramento County et al. 2018, 2019a). Under the Proposed Action Alternative (the proposed SSHCP), the future Permittees would receive incidental take authorization for the Covered Activities described in Chapter 5.2 of the Final SSHCP. The SSHCP Covered Activities may be carried out by the future Permittees themselves, by a Third Party Project Proponent that is under the jurisdiction of a future Permittee (i.e. landowners and private developers), and in some cases, by local agencies not under the jurisdiction of a future Permittee (i.e. a Participating Special Entity) (see Final SSHCP Chapter 9.2.1 and Chapter 9.3.1).

The process for individual Covered Activity projects to receive take authorization is fully described in the Final SSHCP. In all cases, compliance of individual Covered Activities with SSHCP commitments and requirements will be documented by the future Permittees. Covered Activity compliance would include adherence to habitat loss limits and species incidental-take limits described in Chapter 6 of the Final SSHCP; Covered Activity implementation of all applicable conditions and applicable avoidance and minimization measures (AMMs) described in Chapter 5 of the Final SSHCP; payment by the individual Covered Activity of required development-fees to the SSHCP (as described in Chapters 9 and 10 of the Final SSHCP); the SSHCP’s implementation of the entire Conservation Strategy (including the preservation of habitat, habitat monitoring, and adaptive management of preserved habitat, as described in Chapters 7, 8, 9, and 11 of the Final SSHCP). The
discussion that follows provides a summary of the South Sacramento Habitat Conservation Plan (SSHCP or Plan), on which we are considering issuing a section 10(a)(1)(B) permit.

**SSHCP Plan Area**

The Plan Area is the geographical area for which in which all SSHCP Covered Activities would be implemented, where all associated incidental take of species would occur, where all SSHCP habitat conservation actions would be implemented, and where the ITP will apply. The SSHCP Plan Area encompasses 317,656 acres in south Sacramento County, including the City of Galt and most of the City of Rancho Cordova (see Final SSHCP Figure 1-1). The general geographical boundaries of the SSHCP Plan Area are U.S. Highway 50 to the north, the Sacramento River levee and County Road J11 (Walnut Grove-Thornton Road) to the west, the Sacramento County boundaries with El Dorado and Amador Counties to the east, and the Sacramento County boundary with San Joaquin County to the south.

The SSHCP Plan Area excludes the northern portion of Sacramento County, the northern portion of the City of Rancho Cordova, all of the City of Sacramento; all of the City of Elk Grove, all of the City of Folsom; the sovereign lands of the Miwok Tribe; and the community of Rancho Murieta (see Final SSHCP Figure 1-1). These areas were excluded from the SSHCP Plan Area because they were either significantly built out and would not use the SSHCP, or were not likely to benefit from the SSHCP due to the absence of listed species or their habitats. The sovereign lands of the Miwok Tribe are not included because the tribe is not a permit applicant or a proposed Permittee.

The SSHCP Plan Area has two components: inside and outside of defined Urban Development Areas (UDAs). The UDAs are the portions of the Plan Area where all proposed urbanization Covered Activities would occur, and therefore, where most incidental take would occur. The County of Sacramento has previously adopted an Urban Service Boundary (USB) to demarcate the ultimate extent to which the County would provide future urban services, such as sanitary sewer and water supply. Consequently, the portion of the Sacramento County USB that is within the SSHCP Plan Area is included in the SSHCP’s UDA, and the portion of Rancho Cordova’s sphere of influence that is within the boundaries of the Plan Area is part of the SSHCP UDA. In addition, on the southcentral border of the SSHCP Plan Area, all lands within the City of Galt and within Galt’s sphere of influence are also within the SSHCP’s UDA (Final SSHCP Figure 1-1). In total, approximately 67,618 acres of the Plan Area are within the UDA boundaries. The component of the SSHCP Plan Area that is located outside of the UDA boundaries totals 250,038 acres. Any future urban development that may occur outside of the UDAs would not be a Covered Activity under the SSHCP. However, the Permit Applicants are requesting a limited amount of incidental take outside of the UDAs for specific rural roadway and infrastructure Covered Activity projects, and for habitat management and species conservation Covered Activities that would occur within the proposed SSHCP Preserve System.

To assist with development of the SSHCP Conservation Strategy, the Permit Applicants further divided the SSHCP Plan Area into eight Preserve Plan Units (PPUs) based on the locations of existing landcovers and habitats that are important for different suites of the SSHCP Covered Species (see Final SSHCP Figure 1-1). PPUs 1, 2, 3, and 4 are located in the northern half of the Plan Area (north of the Cosumnes River). Most of PPU 1 and all of PPUs 2, 3, and 4 are within the UDA boundary. The vernal pool Mather Core Recovery Area (MCRA) (USFWS 2005) is also located within PPUs 1, 2 and 3 is inside the UDA. In addition, PPU 8, which is located on the on the southcentral border of the Plan Area, is also part of the SSHCP UDA. PPU 8 contains the City of Galt and the City of Galt’s Sphere of Influence.
Outside the UDA, SSHCP PPU 6 encompasses the western, southwestern, and south-center portions of the SSHCP Plan Area, which are dominated by farming landcovers that provide foraging habitat for many avian Covered species. The large PPU 7 encompasses the southeastern quarter of the SSHCP Plan Area, and includes the vast majority of the extant Valley Grassland and the Vernal Pool Ecosystem landcovers that remain in the Plan Area. Most of the vernal pool Cosumnes/Rancho-Seco Core Recovery Area (USFWS 2005) is located within PPU 7. A complete description of each SSHCP PPU, including documented species occurrences and acres of each SSHCP landcover present within each PPU, is discussed in Final SSHCP Chapter 3.

**Permit Term**

The proposed permit term of the SSHCP is 50 years. The Permit Term is the period in which the future Permittees may receive incidental take authorization for Covered Activities under the SSHCP. The Permit Term is also the period in which all SSHCP conservation actions described in the SSHCP Conservation Strategy must be fully implemented and successfully completed to offset the effects of the Covered Activities.

**SSHCP Covered Species**

The Permit Applicants are requesting coverage under an ITP for 20 wildlife species, and are requesting assurances for eight plant species, for a total of 28 species (the SSHCP Covered Species). Five of the wildlife Covered Species are currently listed as federally threatened (T) or endangered (E), and two of the plant Covered Species are currently listed as federally threatened (T) or endangered (E). Therefore, seven of the Covered Species are currently listed under the ESA, and 21 Covered Species are currently unlisted. In addition, five of the federally listed Covered Species have Critical Habitat designated under the ESA (i.e. vernal pool fairy shrimp, vernal pool tadpole shrimp, the California tiger salamander Central California distinct population segment, Slender Orcutt grass, and Sacramento Orcutt grass). A list of the 28 SSHCP Covered Species is provided below:

**Wildlife Covered Species**

1. Vernal pool tadpole shrimp (*Lepidurus packardi*) (E)
2. Vernal pool fairy shrimp (*Branchinecta lynchi*) (T)
3. Mid-valley fairy shrimp (*Branchinecta mesovallensis*)
4. Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) (T)
5. Ricksecker's water scavenger beetle (*Hydrochara rickseckeri*)
7. Western spadefoot (*Spea hammondi*)
8. Western pond turtle (*Actinemys marmorata*)
9. Giant gartersnake (*Thamnophis gigas*) (T)
10. Cooper's hawk (*Accipiter cooperii*)
11. Tricolored blackbird (*Agelaius tricolor*)
12. Western burrowing owl (*Athene cunicularia hypugaea*)
13. Ferruginous hawk (*Buteo regalis*)
14. Swainson's hawk (*Buteo swainsoni*)
15. Northern harrier (*Circus cyaneus*)
16. White-tailed kite (*Elanus leucurus*)
17. Greater sandhill crane (*Grus canadensis tabida*)
18. Loggerhead shrike (*Lanius ludovicianus*)
19. Western red bat (*Lasiurus blossevillii*)
20. American badger (Taxidea taxus)

Plant Covered Species
21. Dwarf downingia (Downingia pusilla)
22. Boggs Lake hedge-hyssop (Gratiola heterosepala)
23. Ahart's dwarf rush (Juncus leiospermus var. ahartii)
24. Legenere (Legenere limosæ)
25. Pincushion navarretia (Navarretia myersii)
26. Slender Orcutt grass (Orcuttia tenuis) (T)
27. Sacramento Orcutt grass (Orcuttia viscidea) (E)
28. Sanford’s arrowhead (Sagittaria sanfordii)

Treatment of unlisted species is a crucial issue for HCPs and the section-10 process. Congress considered this issue during the 1982 ESA Amendments and clearly intended that the section 10 process would provide for conservation of unlisted and listed species, and protect section-10 permittees from the uncertainties of future species listings. Section 10 of the ESA, and the Service's permit-implementing regulations allow permits for the take of covered wildlife species that is incidental to otherwise lawful activities, provided the permit applicant's activities "will not appreciably reduce the likelihood of the survival and recovery of the [covered] species in the wild" and the permit applicant "minimizes and mitigates to the maximum extent practicable" the impact of take likely to result from its activities. In order to obtain such permission, the applicant must submit a Habitat Conservation Plan (HCP) that, in the judgment of the Service, meets these basic requirements as well as the other criteria stated in section 10(a)(2)(B) of the ESA, including the requirement to ensure that adequate funding for the HCP would be provided. Because the Covered Activities included in the SSHCP (described below) could result in "take" of animal Covered Species and impacts to plant Covered Species, the six Permit Applicants have applied for a section 10(a)(1)(B) Incidental Take Permit from the Service. The Permit would authorize take of the currently unlisted animal Covered Species concurrent with their listing under the ESA, should that occur. The Permit would extend regulatory "No Surprises Rule" assurances to all 28 SSHCP Covered Species (50 CFR 17.3; 17.22(b)(5); and 17.32(b)(5)).

SSHCP Covered Activities

The Permit Applicants are requesting incidental take authorization for the construction, operation, and maintenance of the following eight categories (and associated subcategories) of SSHCP Covered Activities, which are fully described in Chapter 5 of the Final SSHCP:

- Urban development projects and activities within the UDAs:
  - Residential, Commercial, and Industrial Structures;
  - Park and Recreation Facilities;
  - Water Supply Facilities;
  - Flood Control and Stormwater Management in the UDA;
  - Public and Private Utilities;
  - Solid Waste Management Facilities;
  - Wastewater (Sewer) Facilities;

1 Although take of plant species is not prohibited under the ESA, and therefore incidental take of plants cannot be authorized by the Permit, the eight plant Covered Species will be included on the proposed Permit in recognition of the conservation benefits to each plant Covered Species provided by SSHCP Conservation Strategy.
• Urban Transportation Facilities, including the Capital SouthEast Connector;
• Stream Channel Modification;
  ▪ Mining Projects within the UDAs
  ▪ Rural Transportation Projects outside the UDAs
  • Rural Collector Road Improvements:
    • Arterial Road Improvements;
    • Road Realignment Projects;
    • Road Interchange Projects;
  ▪ Recycled Water Projects outside the UDAs;
  ▪ Covered Activities allowed within SSHCP Preserve Setbacks in the UDA;
  ▪ Covered Activities allowed in Stream Setbacks within the UDA;
  ▪ Covered Activities within the Laguna Creek Wildlife Corridor;
  ▪ SSHCP Preserve System Covered Activities.

Projected Loss of Covered Species Modeled Habitat

Comprehensive descriptions, maps, and existing conditions of each SSHCP landcover present in the Plan Area are presented in Chapter 3 of the Final SSHCP. Maximum acreage of direct and indirect impacts to each natural landcover are summarized in Final SSHCP Table 6-4 and presented for reference in Table 1 below. In total, approximately 33,497 acres, or 12%, of the 272,596 acres of natural landcovers present in the Plan Area would be removed over the proposed 50-year Permit Term. This includes the removal of approximately 32,054 acres of natural landcovers inside the UDA and approximately 1,443 acres of natural landcovers outside the UDA. The maximum acreage of direct and indirect impacts of Covered Activities on each SSHCP Landcover type, modeled habitat for each SSHCP Covered Species, and impacts to individuals of each SSHCP Covered Species are presented in SSHCP Chapter 6 and are included for reference in Table 1 below.

### Table 1. Permanent Direct and Indirect Effects on SSHCP Natural Land Covers

<table>
<thead>
<tr>
<th>Land Cover</th>
<th>Direct Effects (acres)</th>
<th>Indirect Effects (acres)</th>
<th>Total Impacts (acres)</th>
<th>Total Available in Plan Area (acres)</th>
<th>Percent Impacted of Total Available in Plan Area</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vernal Pool</td>
<td>389</td>
<td>94</td>
<td>483</td>
<td>4,536</td>
<td>11%</td>
</tr>
<tr>
<td>Swale</td>
<td>234</td>
<td>44</td>
<td>278</td>
<td>1,252</td>
<td>22%</td>
</tr>
<tr>
<td>Seasonal Wetland</td>
<td>105</td>
<td>Qualitative¹</td>
<td>105</td>
<td>2,600</td>
<td>4%</td>
</tr>
<tr>
<td>Freshwater Marsh</td>
<td>127</td>
<td>Qualitative</td>
<td>127</td>
<td>2,954</td>
<td>4%</td>
</tr>
<tr>
<td>Streams/Creeks (VPIH)</td>
<td>22</td>
<td>4</td>
<td>26</td>
<td>73</td>
<td>36%</td>
</tr>
<tr>
<td>Streams/Creeks</td>
<td>117</td>
<td>Qualitative</td>
<td>117</td>
<td>2,778</td>
<td>4%</td>
</tr>
<tr>
<td>Open Water</td>
<td>155</td>
<td>Qualitative</td>
<td>155</td>
<td>2,344</td>
<td>7%</td>
</tr>
<tr>
<td>Mixed Riparian Woodland</td>
<td>184</td>
<td>Qualitative</td>
<td>184</td>
<td>5,856</td>
<td>3%</td>
</tr>
<tr>
<td>Mixed Riparian Scrub</td>
<td>189</td>
<td>Qualitative</td>
<td>189</td>
<td>1,454</td>
<td>13%</td>
</tr>
<tr>
<td>Mine Tailing Riparian Woodland</td>
<td>218</td>
<td>Qualitative</td>
<td>218</td>
<td>641</td>
<td>34%</td>
</tr>
<tr>
<td>Valley Grassland (in Vernal Pool Ecosystem)</td>
<td>16,472</td>
<td>Qualitative</td>
<td>16,472</td>
<td>97,349</td>
<td>17%</td>
</tr>
<tr>
<td><strong>Terrestrial</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valley Grassland (Outside)</td>
<td>5,542</td>
<td>Qualitative</td>
<td>5,542</td>
<td>37,803</td>
<td>15%</td>
</tr>
</tbody>
</table>
One of the stated goals of the SSHCP is to protect the vernal pool Covered Species within the Plan Area’s Vernal Pools, Swales, and certain Streams/Creek landcovers. Because the seasonal hydrology and ecological functions of these seasonally wet aquatic landcovers are dependent on the adjacent Valley Grassland uplands, the SSHCP identified and mapped areas where adjacent Valley Grasslands are hydrologically- and ecologically-connected to existing Vernal Pools, Swales, or the Stream/Creek-VPIH landcover. Taken together, these Valley Grassland and Vernal Pool, Swale, and Stream/Creek VPIH landcovers comprise areas of Vernal Pool Ecosystem. In total, approximately 17,259 acres, or 17%, of the existing 103,210 acres of the Vernal Pool Ecosystem in the Plan Area would be directly removed or indirectly impacted by SSHCP Covered Activities. Indirect effects include altered hydrology of the Vernal Pool Ecosystem from the removal or disturbance of hydrologically connected Valley Grassland uplands. Within the UDAs, effects to the Vernal Pool Ecosystem are limited to the direct removal of up to 16,795 acres (64%), and indirect impacts are limited to 132 acres (0.5%) of the existing 26,048 acres of Vernal Pool Ecosystem currently present within the UDAs. Outside the UDAs, direct removal would not exceed 322 acres (0.4%) and indirect impacts would not exceed 9.5 acres (0.01%) of the existing 77,162 acres of Vernal Pool Ecosystem currently present outside the UDAs. The maximum direct and indirect impacts of SSHCP Covered Activities on Vernal Pool Ecosystem landcovers within the Plan Area are shown in SSHCP Table 6-5, and included for reference in Table 2 below.

### Table 2. Maximum Direct and Indirect Impacts to Vernal Pool Ecosystem

<table>
<thead>
<tr>
<th>Vernal Pool Ecosystem Landcovers</th>
<th>Acres Inside the UDAs</th>
<th>Acres Outside UDAs</th>
<th>Total Acres Affected outside UDA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Existing Acres</td>
<td>Permanent Direct Effects (acres)</td>
<td>Permanent Indirect Effects (acres)</td>
</tr>
<tr>
<td>Valley Grassland (in the Vernal Pool Ecosystem)</td>
<td>24,584</td>
<td>16,186</td>
<td>Qualitative Assessment</td>
</tr>
<tr>
<td>Vernal Pool</td>
<td>935</td>
<td>355</td>
<td>85</td>
</tr>
<tr>
<td>Swale</td>
<td>461</td>
<td>232</td>
<td>43</td>
</tr>
<tr>
<td>Streams/Creeks (VPIH)²</td>
<td>68</td>
<td>22</td>
<td>4</td>
</tr>
<tr>
<td><strong>Vernal Pool Ecosystem Total</strong></td>
<td><strong>26,048</strong></td>
<td><strong>16,795</strong></td>
<td><strong>132</strong></td>
</tr>
</tbody>
</table>

1. Total impacts to Valley Grassland in the Vernal Pool Ecosystem include an amount of indirect impact that was described and analyzed qualitatively by the SSHCP.
2. The SSHCP Stream/Creek VPIH Landcover describes intermittent drainages located in the north half of the Plan Area that convey water after winter rain events (are ephemeral) and are vegetated with Valley Grassland plant species. The Stream/Creek (VPIH) landcover is known to provide movement corridors for individuals, seeds, and propagules of certain vernal pool Covered Species, and in some years may provide suitable reproductive habitat for some vernal pool crustacean Covered Species (i.e. mid-valley fairy shrimp and vernal pool fairy shrimp) within depressional features that pond water between winter storm events. The SSHCP mapped approximately 69 acres of Stream/Creek VPIH inside the UDA, and approximately 4 acres of Stream/Creek VPIH outside the UDA.
As discussed in Final SSHCP Chapter 3.4, the six Permit Applicants prepared the "Baseline Map of SSHCP Landcovers" (Final SSHCP Figure 3-1) to model, quantify, and map suitable habitat within the Plan Area for each SSHCP Covered Species. The SSHCP established maximum direct and indirect impacts to modeled habitat for each SSHCP Covered Species, as discussed in Final SSHCP Chapter 6 and included for reference in Table 3 below.

**SSHCP Conservation Strategy**

The conservation strategy of the SSHCP is fully described in Chapter 7 of the Final SSHCP. The SSHCP Conservation Strategy avoids or minimizes impacts of individual Covered Activity projects on each Covered Species, fully mitigates for unavoidable impacts on Covered Species and their habitats, provides a regional approach for mitigation and the conservation of species and their habitats, protects the functions of wetlands and waters of the Plan Area on a landscape basis, provides for the permanent conservation of the natural communities that are present in the Plan Area, and provides for the permanent conservation of the 28 Covered Species in the Plan Area. The conservation strategy is based on landscape-level, natural community-level, and species-level biological goals and objectives. Conservation Actions were then identified to achieve each of the biological objectives (see Final SSHCP Chapter 7.3). The SSHCP Conservation Strategy includes the following major components:

- Provide for the continued persistence of each Covered Species in the Plan Area;
- Protect and maintain areas of habitat that are large enough to support sustainable populations of each Covered Species;
- Conserve the full range of existing environmental gradients, landforms, geology, and soil types present in the Plan Area to conserve the existing genetic diversity of Plan Area native species;
- Establish a minimum 36,282-acre interconnected SSHCP Preserve System that would conserve the existing biological diversity of native species, natural communities, and ecosystem functions that are present in the SSHCP Plan Area. The SSHCP Preserve System would preserve at least 34,495 acres of existing high-quality habitat present in the Plan Area. In addition, the SSHCP Conservation Strategy would re-establish or establish at least 1,787 acres of Covered Species habitat (including riparian landcovers, vernal pools, and other aquatic landcovers), to mitigate loss of Covered Species habitat, and to achieve federal, state, and County requirements for “no-net-loss” of wetlands and other waters.
- Assemble the SSHCP Preserve System in accordance with the preserve design criteria described in Chapter 7.4 and Table 7-1 of the Final SSHCP for the benefit of the Covered Species, the natural communities, and the ecosystem functions present in the Plan Area, and to maintain species movement and species genetic interchange between different parts of the Plan Area;
- Protect and maintain areas of habitat that are large enough to support sustainable populations of each Covered Species, including a 10,500-acre Landscape-size Preserve outside the UDA, and three minimum 800-acre Core-size preserves inside the UDA;
- Assemble the 36,282-acre SSHCP Preserve System in a manner that supplements, complements, and links together the existing 64,500 acres of isolated and noncontiguous preserves that are already present within the SSHCP Plan Area;
- Prioritize the preservation of habitat in Core Areas identified for the recovery of vernal pool ecosystems and vernal pool species (USFWS 2005), and the recovery of the California tiger salamander (USFWS 2017);
• Preserve certain types of farmland landcovers that provide foraging and breeding or sheltering habitat for SSHCP Covered Species;
• Maintain the existing watershed functions present in the Plan Area to benefit wetlands and other waters, to enhance or maintain the numbers of aquatic Covered Species in the Plan Area, and to maintain or improve regional water quality;
• Protect sections of the Laguna Creek Corridor (Sacramento County 2011) that are located within the SSHCP Plan Area and are not already protected;
• Protect remaining natural segments of Elder Creek, Frye Creek, Gerber Creek, Morrison Creek, Paseo Central, Sun Creek, and their first- and second-order tributaries within the UDA portion of the Plan Area;
• Require new or enhanced AMMs that avoid and minimize impacts to wetlands and other waters, including requirements that new urban development within the UDAs be setback a minimum of 100 to 150 feet from the banks of streams and creeks, and be setback a minimum of 25 feet from first and second order tributaries;
• Implement a Preserve System Monitoring and Management Program that would improve the habitat functions of natural landcovers, enhance populations of Covered Species, and enhance biological diversity within the SSHCP Preserve System;
• Monitor and manage the minimum 36,282-acre SSHCP Preserve System in perpetuity.

Table 3. Maximum Permanent Effects to Covered Species Modeled Habitat

<table>
<thead>
<tr>
<th>Covered Species and Modeled Habitat Type</th>
<th>Maximum Allowable Permanent Effects on Modeled Habitat (acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Vernal pool tadpole shrimp</td>
<td></td>
</tr>
<tr>
<td>Aquatic Vernal Pool Ecosystem Habitat</td>
<td>787</td>
</tr>
<tr>
<td>Upland Vernal Pool Ecosystem Habitat</td>
<td>16,472</td>
</tr>
<tr>
<td><strong>Total Modeled Habitat</strong></td>
<td><strong>17,259</strong></td>
</tr>
<tr>
<td>2. Vernal pool fairy shrimp</td>
<td></td>
</tr>
<tr>
<td>Aquatic Vernal Pool Ecosystem Habitats</td>
<td>787</td>
</tr>
<tr>
<td>Upland Vernal Pool Ecosystem Habitat</td>
<td>16,472</td>
</tr>
<tr>
<td><strong>Total Modeled Habitat</strong></td>
<td><strong>17,259</strong></td>
</tr>
<tr>
<td>3. Mid-valley fairy shrimp</td>
<td></td>
</tr>
<tr>
<td>Aquatic Vernal Pool Ecosystem Habitat</td>
<td>633</td>
</tr>
<tr>
<td>Upland Vernal Pool Ecosystem Habitat</td>
<td>12,006</td>
</tr>
<tr>
<td><strong>Total Modeled Habitats</strong></td>
<td><strong>12,639</strong></td>
</tr>
<tr>
<td>4. Valley elderberry longhorn beetle</td>
<td></td>
</tr>
<tr>
<td><strong>Total Modeled Habitat</strong></td>
<td><strong>591</strong></td>
</tr>
<tr>
<td>5. Ricksecker's water scavenger beetle</td>
<td></td>
</tr>
<tr>
<td>Aquatic Vernal Pool Ecosystem Habitat</td>
<td>761</td>
</tr>
<tr>
<td>Upland Vernal Pool Ecosystem Habitat</td>
<td>16,472</td>
</tr>
<tr>
<td><strong>Total Modeled Habitat</strong></td>
<td><strong>17,233</strong></td>
</tr>
<tr>
<td>6. California tiger salamander</td>
<td></td>
</tr>
<tr>
<td>(Central California Distinct Population Segment)</td>
<td></td>
</tr>
<tr>
<td>Aquatic Habitat</td>
<td>80</td>
</tr>
<tr>
<td>Upland Habitat</td>
<td>1,677</td>
</tr>
<tr>
<td><strong>Total Modeled Habitat</strong></td>
<td><strong>1,757</strong></td>
</tr>
<tr>
<td>7. Western spadefoot</td>
<td></td>
</tr>
<tr>
<td>Aquatic Habitat</td>
<td>1,164</td>
</tr>
<tr>
<td>Upland Habitat</td>
<td>22,043</td>
</tr>
<tr>
<td><strong>Total Modeled Habitat</strong></td>
<td><strong>23,207</strong></td>
</tr>
<tr>
<td>8. Western pond turtle</td>
<td></td>
</tr>
<tr>
<td>Aquatic Habitat</td>
<td>316</td>
</tr>
<tr>
<td>Upland Habitat</td>
<td>10,656</td>
</tr>
<tr>
<td>9. Giant gartersnake</td>
<td>Total Modeled Habitat</td>
</tr>
<tr>
<td>----------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td></td>
<td>High Value Aquatic Habitat</td>
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<tr>
<td></td>
<td>Other Aquatic Habitat</td>
</tr>
<tr>
<td></td>
<td>High Value Upland Habitat</td>
</tr>
<tr>
<td></td>
<td>Other Upland Habitat</td>
</tr>
<tr>
<td></td>
<td><strong>Total Modeled Habitat</strong></td>
</tr>
<tr>
<td>10. Cooper's hawk</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nesting/Foraging Habitat</td>
</tr>
<tr>
<td></td>
<td>Foraging Habitat</td>
</tr>
<tr>
<td></td>
<td><strong>Total Modeled Habitat</strong></td>
</tr>
<tr>
<td>11. Tricolored blackbird</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nesting/Foraging Habitat</td>
</tr>
<tr>
<td></td>
<td>Foraging Habitat</td>
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<tr>
<td></td>
<td><strong>Total Modeled Habitat</strong></td>
</tr>
<tr>
<td>12. Western burrowing owl</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nesting/Foraging Habitat</td>
</tr>
<tr>
<td></td>
<td>Foraging Modeled Habitat</td>
</tr>
<tr>
<td></td>
<td><strong>Total Modeled Habitat</strong></td>
</tr>
<tr>
<td>13. Ferruginous hawk</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nesting Habitat</td>
</tr>
<tr>
<td></td>
<td>High Value Foraging Habitat</td>
</tr>
<tr>
<td></td>
<td>Other Foraging Habitat</td>
</tr>
<tr>
<td></td>
<td><strong>Total Modeled Habitat</strong></td>
</tr>
<tr>
<td>14. Swainson's hawk</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nesting/Foraging Habitat</td>
</tr>
<tr>
<td></td>
<td>Foraging Habitat</td>
</tr>
<tr>
<td></td>
<td><strong>Total Modeled Habitat</strong></td>
</tr>
<tr>
<td>15. Northern harrier</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nesting/Foraging Habitat</td>
</tr>
<tr>
<td></td>
<td>Foraging Habitat</td>
</tr>
<tr>
<td></td>
<td><strong>Total Modeled Habitat</strong></td>
</tr>
<tr>
<td>16. White-tailed kite</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Value Roosting Habitat</td>
</tr>
<tr>
<td></td>
<td>Other Roosting Habitat</td>
</tr>
<tr>
<td></td>
<td>High Value Roosting/Foraging Habitat</td>
</tr>
<tr>
<td></td>
<td>Other Roosting/Foraging Habitat</td>
</tr>
<tr>
<td></td>
<td>High Value Foraging Habitat</td>
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<tr>
<td></td>
<td>Other Foraging Habitat</td>
</tr>
<tr>
<td></td>
<td><strong>Total Modeled Habitat</strong></td>
</tr>
<tr>
<td>17. Greater sandhill crane</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nesting Habitat</td>
</tr>
<tr>
<td></td>
<td>Nesting/Foraging Habitat</td>
</tr>
<tr>
<td></td>
<td>Foraging Habitat</td>
</tr>
<tr>
<td></td>
<td><strong>Total Modeled Habitat</strong></td>
</tr>
<tr>
<td>18. Loggerhead shrike</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nesting Habitat</td>
</tr>
<tr>
<td></td>
<td>Nesting/Foraging Habitat</td>
</tr>
<tr>
<td></td>
<td>Foraging Habitat</td>
</tr>
<tr>
<td></td>
<td><strong>Total Modeled Habitat</strong></td>
</tr>
<tr>
<td>19. American badger</td>
<td>Total Modeled Habitat</td>
</tr>
<tr>
<td>20. Western red bat</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Roosting/Foraging Habitat</td>
</tr>
<tr>
<td></td>
<td>Foraging Habitat</td>
</tr>
<tr>
<td></td>
<td><strong>Total Modeled Habitat</strong></td>
</tr>
<tr>
<td>21. Ahart's dwarf rush</td>
<td>Total Modeled Habitat</td>
</tr>
<tr>
<td>22. Boggs Lake hedge-hyssop</td>
<td>Total Modeled Habitat</td>
</tr>
<tr>
<td>----------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>23. Dwarf downingia</td>
<td>Total Modeled Habitat</td>
</tr>
<tr>
<td>24. Legenere</td>
<td>Total Modeled Habitat</td>
</tr>
<tr>
<td>25. Pincushion navarretia</td>
<td>Total Modeled Habitat</td>
</tr>
<tr>
<td>26. Sacramento Orcutt grass</td>
<td>Total Modeled Habitat</td>
</tr>
<tr>
<td>27 Slender Orcutt grass</td>
<td>Total Modeled Habitat</td>
</tr>
<tr>
<td>28. Sanford's arrowhead</td>
<td>Total Modeled Habitat</td>
</tr>
</tbody>
</table>

The SSHCP Conservation Strategy includes a set of 10 conditions for implementing individual Covered Activity projects. Each condition contains several general and species-specific Avoidance and Minimization Measures (AMMs) that would avoid or reduce the direct and indirect effects to each Covered Species. The SSHCP requires Covered Activities implemented within modeled habitat for a Covered Species to implement species-specific AMMs, which may include species surveys, pre-construction surveys, construction monitoring, and seasonal construction “windows.” Details of the general AMMs and the species-specific AMMs are described in Chapter 5.4 of the Final SSHCP.

The SSHCP’s “Jump Start” and the SSHCP’s Stay-Ahead” provisions require that the implementation of the SSHCP Conservation Strategy and progress toward assembling and managing the 36,282-acre SSHCP Preserve System, would always stay ahead of Covered Activity effects on species (Final SSHCP Chapter 9.4.6). These provisions of the Conservation Strategy would avoid temporal impacts to Covered Species that could occur if there is a delay between the time of a Covered Activity effect and the time when benefits of the SSHCP Conservation Strategy become available to the affected Covered Species (e.g. environmental benefits that result from habitat management, habitat enhancement, and habitat re-establishment). Under the initial “Jump Start” provision, the future Permittees would protect at least 5% of the total 34,495 acres of habitat preservation required by the SSHCP Conservation Strategy before incidental take permits are issued by the Service and CDFW (Final SSHCP Table 9-2). Under the “Stay-Ahead” provision, the future Permittees would assure that the acreage of each SSHCP landcover-group preserved in the SSHCP Preserve System is always at least 2% ahead of the remaining acres of landcover-preservation still required to assemble the total 36,282-acre SSHCP Preserve System. Throughout the 50-year permit term, the SSHCP would maintain the 2% Stay-Ahead provision before additional Covered Activity effects are allowed. The Stay Ahead provision would also maintain a 2% acreage “cushion” of re-established/ established vernal-pool Covered Species aquatic modeled-habitats in advance of Covered Activity direct effects to those aquatic landcovers. The Stay-Ahead provision also applies to the colonies of tricolored blackbird within the Plan Area, and to individual occurrences of five plant Covered Species (Bogg’s Lake hedge-hyssop, dwarf downingia, legenere, pincushion navarretia, and Sanford’s arrowhead).

**Monitoring and Enforcement**

Chapter 8 of the Final SSHCP identifies SSHCP monitoring obligations and enforcement mechanisms to ensure the SSHCP would be properly implemented, in compliance with the Service’s permit regulations (50 CFR Parts 13 and 17). Due to the programmatic nature of the SSHCP, it was not possible to develop site-specific Preserve monitoring plans prior to developing the ROD and
making a permit decision. Instead, Chapter 8 of the Final SSHCP provides two frameworks on which detailed Preserve monitoring and adaptive management plans would be developed during SSHCP implementation. The “Compliance and Avoidance and Minimization Measure (AMM) Monitoring Program Framework.” includes a framework to monitor compliance with SSHCP requirements, compliance with the SSHCP Implementing Agreement, and compliance with the Permit. The SSHCP's Compliance and AMM Monitoring Program would also ensure required AMMs are implemented at Covered Activity project sites, and are implemented correctly. In addition, the "Compliance and AMM Monitoring Program" would monitor the effectiveness of each implemented AMM. The results of AMM effectiveness monitoring would inform the adaptive modification of certain SSHCP AMMs, if necessary to reduce Covered Activity effects on Covered Species and on SSHCP natural landcovers to the extent assumed during the preparation of the SSHCP Conservation Strategy and preparation of the SSHCP impact analysis (Chapter 6 of the Final SSHCP).

The second framework, the “SSHCP Preserve System Monitoring and Management Program” was developed to monitor the biological effectiveness of the SSHCP Conservation Strategy in terms of protecting Covered Species, natural communities, and ecosystem processes within the SSHCP Preserve System, and to evaluate the effectiveness of Preserve land-management actions. The SSHCP Preserve System Monitoring and Management Program would integrate habitat monitoring and adaptive management into one cohesive program where monitoring would inform and change Preserve land management actions to continually improve outcomes for Covered Species and natural landcovers. The SSHCP Preserve System Monitoring and Management Program framework presented in Final SSHCP Chapter 8 also outlines the monitoring and management protocols and standards that the SSHCP would use to prepare individual Preserve Management Plans (PMPs), and outlines required content of future SSHCP Annual Reports. The data and results of the compliance monitoring and the effectiveness monitoring would be incorporated into Annual Reports prepared by SSHCP Permittees and submitted to the Service and the CDFW by the end of January each year. Final SSHCP Chapter 8.4 and Chapter 9.9 summarizes information that, at a minimum, would be included in each SSHCP Annual Report.

Chapter 9 of the Final SSHCP describes the roles and responsibilities of the future Permittees and each of the Permitting Agencies, including the Service. The Service’s primary responsibility during SSHCP implementation would be to ensure the future Permittees are in compliance with the section 10(a)(1)(B) permit, the Final SSHCP, and the SSHCP Implementing Agreement. As discussed in the Final SSHCP, the duties and responsibilities of Service and CDFW during implementation of the SSHCP would include the following:

- Participating on the SSHCP Technical Advisory Committee (TAC);
- Participating on the SSHCP Interagency Review Team (IRT);
- Reviewing and approving SSHCP species monitoring protocols, including appropriate reference sites;
- Reviewing and approving modifications to SSHCP AMMs;
- Ranking potential land or easement acquisitions for priority;
- Reviewing and approving SSHCP property transactions for satisfying the SSHCP Conservation Strategy, such as land or easement acquisitions, purchase of conservation or mitigation bank credits, land dedications, and gifts of land;
- Reviewing and approving individual Preserve Management Plans;
- Reviewing and approving individual Preserve Monitoring Plans;
• Reviewing and approving adaptive land management actions in SSHCP Preserves;
• Reviewing and approving upland habitat and aquatic habitat re-establishment/establishment plans;
• Reviewing and approving success criteria for upland habitat and aquatic habitat re-establishment/establishment projects;
• Reviewing relevant new scientific studies and reports for applicability in SSHCP Preserve management;
• Advising on other scientific issues as identified by the South Sacramento Conservation Agency Executive Director;
• Attending regular coordination meetings;
• Reviewing each SSHCP Annual Report to confirm compliance with requirements of the SSHCP and the ITP;
• Reviewing individual Covered Activity project application-packages prior to SSHCP Permittee approvals of Covered Activity projects that border an existing preserve or border a SSHCP planned Preserve;
• Reviewing individual Covered Activity project application-packages prior to SSHCP Permittee approvals of Covered Activity projects that require a wildlife crossing structure.

To ensure the success of the SSHCP, the future SSHCP Permittees will make progress on a variety of tasks simultaneously. Implementation schedule guidelines and specific milestones for SSHCP implementation, including progress towards species habitat preservation as well as aquatic landcover re-establishment and establishment, are presented in Final SSHCP Chapter 9.11. Final SSHCP Table 9-2 lists implementation tasks with deadlines that are tied to ITP compliance.

3.0. ALTERNATIVES CONSIDERED

The SSHCP EIS/EIR considered a range of reasonable alternatives for an HCP in south Sacramento County, including potential HCP action alternatives with different permit terms, different covered species, different plan area boundaries, different types, and different extent of Covered Activities, and different conservation-strategy elements. Two action alternatives were carried forward for detailed analysis in the SSHCP EIS/EIR, because those alternatives were determined to be practicable, they included provisions to reduce impacts, they addressed each of the existing issues and the underlying needs identified in the Plan Area, and they would achieve each of the purposes, needs, and objectives identified in SSHCP EIS/EIR Chapter 1.3. In addition, a No Action Alternative was analyzed in the SSHCP EIS/EIR. A detailed description of the three SSHCP EIS/EIR Alternatives are provided in Chapter 2 of the SSHCP EIS/EIR, and are summarized below. A discussion of the alternatives considered by the SSHCP EIS/EIR lead agencies (Service and Sacramento County) but were eliminated from further consideration is provided in Chapter 2.1.5 of the SSHCP EIS/EIR, and also summarized below.

3.1 No Action Alternative

As described in SSHCP EIS/EIR Chapter 2.1, under the No Action Alternative, all lands within the Sacramento County Urban Services Boundary (USB) that are zoned or are ultimately planned for urban development would be developed over the next 50 years, as described in the adopted Sacramento County General Plan (Sacramento County 2011). Similarly, all lands within the City of Galt Sphere Of Influence (SOI), as well all lands within the City of Rancho Cordova SOI that are zoned or are ultimately planned for urban development, would be developed over the next 50 years,
as described in those adopted General Plans (Galt 2008, Galt 2009; Rancho Cordova 2006). As described in SSHCP EIS/EIR Chapter 8.2.2, approximately 35,532 acres (13%) of the natural landcovers present in the Plan Area would be converted to developed landcovers under the No Action Alternative.

Under the No Action Alternative, the Service would not issue a section 10(a)(1)(B) permit to the six Permit Applicants, and no comprehensive HCP would be implemented in south Sacramento County. The CDFW would not issue a 50-year permit for the incidental take of species listed under the California Endangered Species Act (CESA) and the CDFW would not issue a Master Streambed Alteration Agreement (MSAA) to the Permit Applicants to address future projects and activities within stream zones. As a result, the Permit Applicants, the private developers under the jurisdictions of the Applicants, and other public agencies wishing to implement projects or activities in south Sacramento County would remain subject to ESA take prohibitions for federally listed species, and would remain subject to CESA take prohibitions for state-listed species. In addition, the USACE would not develop a regional strategy for permitting future projects and activities under section 404 of the Clean Water Act (CWA 404), and an In-Lieu Fee Program would not be developed to address project compensatory-mitigation requirements under CWA 404. Consequently, the Applicants would not develop or implement a local Aquatic Resources Program (ARP) and associated ordinances, and a local aquatic resources permitting-program implemented by the Applicants would not be established in south Sacramento County.

Therefore, the six Applicants, the private entities under their jurisdiction, and others implementing future projects and activities in south Sacramento County that may result in the incidental take of federally-listed species would continue, on a project-by-project basis, to request take authorization from the Service (through ESA section 7 when a Federal agency is involved, or through ESA section 10 for non-federal actions). Similarly, the six Permit Applicants and others with ongoing or future projects and activities that may result in the incidental take of state-listed species would continue to apply directly to the CDFW, on a project-by-project basis, for take authorization under section 2081(b) of the CESA. In addition, the Applicants and other project proponents would continue to apply directly to the USACE, on a project-by-project basis, for CWA 404 authorizations for projects and activities that discharge dredged or fill material into wetlands and other waters of the United States. Likewise, the six Applicants and other project proponents under their jurisdiction would continue to apply directly to the CDFW on a project-by-project basis to obtain individual Streambed Alteration Permits under section 1602 of the California Fish and Game Code.

Therefore, the existing costly and inefficient permit-application processes and the iterative project-reviews by multiple state and Federal agencies would continue. Various types of mitigation would be required by each regulatory agency, with the mitigation requirements based on project effects and the baseline conditions at the time of the project review. Project mitigation would continue to be implemented on a project-by-projects basis, with no comprehensive means established to coordinate or standardize the mitigation and compensation requirements of the ESA, CESA, CWA, the California Fish and Game Code, the California Environmental Quality Act (CEQA), and NEPA on a regional basis in south Sacramento County. Project mitigation that avoids and preserves species habitat, species occurrences, natural communities, wetlands, and other waters would continue to be implemented in an uncoordinated manner. Consequently, the No Action Alternative would continue to result in mitigation preserves that are relatively small and isolated, and do not protect the highest quality natural resources remaining in south Sacramento County. The smaller size and isolation of habitat preserves will reduce ecosystem and habitat functions of the preserved land, increase the proportion of edge area, increase edge effects, and provide little or no habitat connectivity for species movement or dispersal. Much of the habitat preserved as mitigation under the ESA, the
CESA, and CWA 404 would continue to be provided by individual projects purchasing credits from mitigation and conservation banks that are geographically distant from the location of the species effects, often outside the County. Re-established or established vernal pools created for CWA 404 compensatory mitigation may not benefit listed vernal pool crustaceans or assure occupancy.

Over the next 50 years, the No Action Alternative would likely result in relatively low conservation benefit to federal and state listed-species, and low conservation benefit to the non-listed native species that would have been addressed in a regional conservation plan. Coordinated conservation planning and implementation would not happen in south Sacramento County, and the establishment of an interconnected preserve system in south Sacramento County would not occur. Habitat management of mitigation preserves would continue to be inconsistent between preserves, with varying monitoring methods and objectives, relatively little oversight from the agency that required the mitigation, and with no coordination between individual preserves and no exchange of monitoring information between preserves. The project-by-project mitigation process under the No Action Alternative would continue to provide only incidental conservation benefits for Plan Area native species that are not state- or federally-listed as threatened or endangered. In addition, the integration of species conservation into the existing farming and ranching working landscapes, as described in the SSHCP Conservation Strategy, would be unlikely to occur under the No Action Alternative.

3.2 The Proposed Action (Preferred Alternative)

As required by NEPA regulations (40 CFR 1502.14(e)), the Final SSHCP EIS/EIR identified the Proposed Action Alternative as the Service’s preferred alternative. Under the Proposed Action Alternative, we would issue a section 10(a)(1)(B) incidental take permit to the six Permit Applicants based on the implementation of the Final SSHCP (Sacramento County et al. 2018, 2019a). The term of the Permit would be 50 years. The Proposed Action Alternative also includes the issuance of an incidental take permit by CDFW; the execution of the SSHCP Implementing Agreement by all parties; the approval and the implementation of the Final SSHCP by the six Permit Applicants (the future Permittees), the approval and implementation of the SSHCP Aquatic Resources Program, and the approval and implementation of the SSHCP Cultural Resources Management Program by the six Permit Applicants (Sacramento County et al. 2019a, 2019b). The proposed SSHCP Conservation Strategy would establish a process for future Covered Activity projects and activities to comply with the ESA, CESA, CWA, and the California Fish and Game Code, while also accommodating the future compatible land-uses and urban development described in the adopted General Plans and other planning documents that have been prepared by the future Permittees.

The Proposed Action Alternative includes the same types of urban development and infrastructure projects (Covered Activities) as anticipated under the No Action Alternative. However, the locations of some new urban development within in the UDAs are expected to differ from the No Action Alternative, and the locations of project-mitigation sites are expected to differ from the No Action Alternative. A summary of the Proposed Action Alternative (the proposed SSHCP) was presented in Section 2.3 above, including a summary of the SSHCP Covered Activities, the Covered Species, and the SSHCP Conservation Strategy. For detailed explanations of all elements included in the proposed SSHCP, please see Chapter 2.3 of the SSHCP EIS/EIR (USFWS and Sacramento County 2018), and the Final SSHCP (Sacramento County et al. 2018, 2019a).

As described in Chapter 4 through Chapter 17 of the SSHCP EIS/EIR, benefits to the human environment under the Proposed Action Alternative (the proposed SSHCP) would be greater than under the No Action Alternative. Relative to the No Action Alternative, the Proposed Action would
directly affect 33,497 acres (12.8%) of the Plan Area's existing natural landcovers, slightly less than the 35,532 acres (13%) of the Plan Area's existing natural landcovers directly affected under the No Action Alternative. The primary difference between the Proposed Action and the No Action Alternative is that the proposed SSHCP would establish and implement a comprehensive regional conservation-strategy that would conserve ecologically important resources present in the Plan Area, including natural communities, aquatic resources, native species, and species habitats. During the development of the proposed SSHCP Conservation Strategy, the Permit Applicants and the regulatory agencies (the Service, CDFW, USACE, and EPA) reviewed and evaluated the types and the locations of species occurrences, species habitats, and aquatic resources present in the Plan Area, and prioritized their importance to the regional conservation of native species, the conservation of ecosystem functions at a landscape scale, and the conservation of aquatic resources at a watershed scale. Consequently, the proposed SSHCP Conservation Strategy would allow the future SSHCP Permittees to streamline the processes for local review and local permitting of individual Covered Activity projects and activities that are implemented under the Proposed Action Alternative (the proposed SSHCP).

Under the Proposed Action Alternative, the proposed SSHCP would permanently protect 36,282 acres of natural landcovers and Covered Species modeled habitat in the Plan Area, which is approximately 11,991 acres greater than the approximately 24,291 acres of project-by-project mitigation that would occur under the No Action Alternative. The Proposed Action Alternative (the proposed SSHCP) would provide several environmental benefits that would not be achieved by the No Action Alternative. For example, the proposed SSHCP would assemble the 36,282-acre SSHCP Preserve System only in locations with the highest quality natural landcovers, species-habitat, and aquatic resources, and the proposed SSHCP would prioritize habitat preservation within the portions of the Plan Area identified by the Service as species-recovery Core Areas (USFWS 2005, 2017). In addition to preserving the highest quality habitat remaining in the Plan Area, the proposed SSHCP would preserve larger blocks of habitat, resulting in more “interior-area” and less “edge area” within the acres of land preserved under the Proposed Action Alternative, minimizing habitat exposure to adjacent urban development and other environmental stressors. The larger SSHCP Preserves would also facilitate use of land-management activities that improve habitat functionality, including better use of prescribed livestock grazing and prescribed burning of vernal pool grassland Preserves. Furthermore, the Proposed Action Alternative (the proposed SSHCP) would assure that the existing heterogeneity of the vernal pool types currently present in the Plan Area (and their associated geologic formations and landforms) would be preserved within the SSHCP Preserve System, which would not occur under the No Action Alternative's project-by-project mitigation. In addition, the approximately 389 acres of vernal pools that would be re-established or created under the Proposed Action Alternative would be managed in perpetuity to support individuals of one or more SSHCP vernal pool Covered Species. This would not occur under the No Action Alternative, where re-established or created vernal pools would continue to be constructed and managed primarily under the Clean Water Act to offset project impacts to waters of the U.S., with no assurance that federally listed vernal pool species would occur and persist in the re-established or created vernal pools.

The habitat connectivity provided by the SSHCP Preserve System would allow continued wildlife movement and species-dispersal throughout the Plan Area, and in many cases, would preserve existing hydrologic connections. The design of the SSHCP Preserve System would provide habitat connectivity between the existing 61,364-acre patchwork of noncontiguous preserves that are located outside the UDA, and would provide habitat connectivity between the existing 3,171-acres of isolated and mostly small preserves that are present inside the UDA. This habitat connectivity would be unlikely to occur under the No Action Alternative. In addition, because most SSHCP
Preserves would be established adjacent to and contiguous with existing habitat preserves in the Plan Area, the effective (functional) size of individual SSHCP Preserves and the SSHCP Preserve System would be increased.

The additional Covered Activity avoidance and minimization measures (AMMs) included in the Proposed Action Alternative would reduce direct and indirect impacts to existing stream hydrology, water quality, and downstream habitat in the Plan Area, when compared to the No Action Alternative. The additional Stream Setbacks, the establishment of the large and interconnected SSHCP Preserve System, and the other components of the SSHCP Conservation Strategy would better maintain the existing integrity of watersheds within the Plan Area, and would better protect, manage, and enhance the streams, creeks, drainages, and riparian habitats of the Plan Area, when compared to the No Action Alternative. By maintaining or improving the physical, chemical, and biological functions of the aquatic resources present in the Plan Area, the Proposed Action Alternative would help to maintain or improve water quality throughout the region.

The Proposed Action Alternative would also result in greater avoidance and minimization of development project impacts to all eight native plant Covered Species, and would provide greater monitoring and management of these plant species, relative to the No Action Alternative. The six unlisted plant Covered Species would be afforded no protection under the No Action Alternative.

A primary benefit of the Proposed Action Alternative is that one entity (the South Sacramento Conservation Agency) would be responsible for the monitoring and management of species habitat, natural landcovers, wetlands, and waters protected in the SSHCP Preserve System, ensuring consistent habitat management and species monitoring on a landscape and a regional scale, which would not occur under the No Action Alternative. The SSHCP Monitoring and Management Program, and the individual Preserve Management Plans (PMPs) included in the Proposed Action Alternative would be reviewed and approved by the Service and the CDFW, and the non-wasting endowment fund included in the Proposed Action Alternative (the proposed SSHCP) would ensure that all lands protected in the SSHCP Preserve System are managed in perpetuity.

3.3 Reduced Permit Term Alternative

Under the Reduced Permit Term Alternative, the permit term for a South Sacramento Habitat Conservation Plan would be less than 50 years. A HCP permit term that coincides with the study period of local general plans and other local planning documents would result in fewer uncertainties about the locations and effects of the HCP’s covered activities, implementation of the HCP’s conservation strategy, and HCP costs, relative to HCPs implemented under a longer permit-term. The SSHCP EIS/EIR lead agencies (the Service and Sacramento County) determined that the underlying needs present in the Plan Area and the purposes and objectives of the action (see SSHCP EIS/EIR Chapter 1) could generally be achieved within a permit term shorter than the 50-year term requested by the Permit Applicants under the Proposed Action Alternative.

As described in Chapter 2.4 of the SSHCP EIS/EIR, the Lead Agencies analyzed a 30-year permit term for the Reduced Permit Term Alternative, because that term generally coincides with the durations of the General Plans and other local planning documents that have been adopted by the three land-use-authority Permit Applicants (i.e. Sacramento County, City of Galt, and City of Rancho Cordova). The 30-year permit term of the Reduced Permit Term Alternative also coincides with implementation of the master-plan development projects that have already been approved by the land-use authority Permit Applicants, and implementation of other reasonably foreseeable...
master-plan development projects that are expected within the jurisdictions of the land-use-authority Permit Applicants.

The Reduced Permit Term Alternative would have the same Plan Area boundary, address the same Covered Species, implement the same categories of Covered Activities, and implement the same impact avoidance and minimization measures (AMMs) as described for the Proposed Action Alternative (in Section 2.3 above). As with the Proposed Action Alternative, the Reduced Permit Term Alternative would include issuance of ITPs by the Service and CDFW for species take resulting from implementation of HCP Covered Activities and the HCP's Conservation Strategy. The Reduced Permit Term Alternative would also include an Aquatic Resource Plan implemented by the land-use-authority Permit Applicants and include a CWA 404 permit strategy for the Covered Activities that result in fill or discharge to waters of the U.S. However, the term of ITPs and Covered Activity use of the CWA 404 permit strategy would end after 30 years.

The six Permit Applicants determined that approximately 60% of the urban development included in the Proposed Action Alternative would be implemented within the 30-year permit term of Reduced Permit Term Alternative. Therefore, less urban development would occur under the Reduced Permit Term Alternative and fewer development fees would be collected, when compared to the Proposed Action Alternative. Therefore, the Reduced Permit Term Alternative would not allow the HCP Implementing Entity (the South Sacramento Conservation Agency) to establish as many new preserves as would be established under the Proposed Action Alternative's 50-year permit term. The preserves established under the Reduced Permit Term Alternative would also be smaller and less interconnected, relative to at the Proposed Action Alternative's preserve system. The Reduced Permit Term Alternative would preserve approximately 20,044 acres of natural landcovers—less than the 34,495 acres of natural landcovers that would be conserved under the Proposed Action Alternative, and less than the approximately 23,430 acres that would be conserved under the No Action/No Project Alternative,.

Under the Reduced Permit Term Alternative, most of the Preserve System would be associated with the development of five large Master Plans within the UDAs (discussed in SSHCP EIS/EIR Chapters 2.3.3 and 2.3.4), and relatively few new Preserves would be established outside the UDAs. The Reduced Permit Term Alternative would preserve 4,752 acres of natural landcovers inside the UDAs (less than the 7,030 acres of new UDA preserves that would be established under the Proposed Action Alternative, and less than the 6,814 acres of new UDA preserves that would be established under the No Action/No Project Alternative).

Under the Reduced Permit Term Alternative, a large and contiguous 10,500-acre vernal-pool grassland preserve is unlikely to be established in the Plan Area. The few project-mitigation preserves established outside the UDA would not be contiguous or interconnected. Wildlife movement corridors and habitat connectivity are unlikely to be established between the Plan Area’s existing preserves. In these ways, new project-mitigation preserves established outside the UDA under the Reduced Permit Term Alternative would be similar to the expected project-mitigation preserves established outside the UDA under the No Action Alternative.

3.4 Alternatives Eliminated from Further Consideration

The Service’s NEPA process, including the formulation of alternative HCPs for south Sacramento County, was ongoing for over a decade, leading to the development of the Final SSHCP (the EIS/EIR Proposed Action Alternative). During that time, HCP alternatives that considered different Plan Area boundaries, different Covered Species, different conservation strategies for
Covered Species, different conservation strategies for other natural resources, and other elements were considered by the Permit Applicants and the regulatory agencies participating in the decade-long SSHCP planning process. The SSHCP EIS/EIR lead agencies (the Service and Sacramento County) considered all reasonable alternatives, following the process outlined in EIS/EIR Chapter 2.1.4. Most potential HCP alternatives were not carried forward for detailed study in the SSHCP EIS/EIR because they were determined to be infeasible, they did not address the Plan Area's existing issues and the underlying need for action, or they would not achieve the stated purposes and objectives of the action (see SSHCP EIS/EIR Chapter 1.3).

The following additional alternatives were considered by the Lead Agencies, but were excluded from further consideration in the SSHCP EIS/EIR for the reasons discussed below (see SSHCP EIS/EIR Chapter 2.1.5 for a more detailed description of each alternative considered but eliminated for further consideration).

**Place All Conservation and Project-Mitigation Outside of the UDAs**
Under this potential alternative, approximately 28,000 acres of new development and associated infrastructure could occur inside the UDA boundaries, requiring all habitat preservation and mitigation to be located outside the UDAs. This alternative was determined not to achieve many of the purposes/objectives identified in SSHCP EIS/EIR Chapter 1.3.3. For example, Purpose/Objectives # 1, #2, #3, #10, and #11 for maintaining or improving the functions of existing aquatic resources within the Plan Area would not be achieved. This alternative would not allow for establishment of habitat linkages between existing preserves inside the UDA, conflicting with Purpose/Objective #4. This alternative would not protect occurrences of narrowly distributed plant species such as Sacramento Orcutt grass and slender Orcutt grass that occur within the UDA, conflicting with Purpose/Objective # 8. Impacts to state and federally listed species and their habitats, and impacts to existing aquatic resources would not be avoided to the maximum extent practicable, conflicting with Purpose/Objectives #9 and 10. This alternative would not achieve Purpose/Objective #14 because it would not preserve any of the Mather Core Recovery Area—an area identified by the Service as necessary for the recovery of twelve Plan Area vernal pool species (see USFWS 2005), and an especially important part of the range for the vernal pool tadpole shrimp (see USFWS 2007). In addition, limiting preserves to locations outside the USBs would not meet the SSHCP goal of conserving the existing native-species richness and conserving each of natural communities currently present in the Plan Area. For these reasons, this alternative was not carried forward for detailed analysis.

**Preserve at least 50% of the Vernal Pools present in the Plan Area**
This potential alternative was considered by the Permit Applicants early in the initial period of SSHCP preparation (prior to the publication of the Vernal Pool Ecosystem Recovery Plan (USFWS 2005), and would preserve a minimum of 50% of the vernal pools (wetted acres) remaining within the Plan Area (in existing preserves and new SSHCP Preserves). The Lead Agencies determined that the level of habitat preservation provided by this alternative would not provide sufficient preservation of vernal pools to maintain the existing distribution of vernal-pool animal and plant species present in the Plan Area, and would not provide sufficient preservation of the vernal-pool Core Recovery Areas that are designated within the Plan Area (see USFWS 2005 and 2017). For these reasons, this alternative would not achieve the identified needs, purposes, and objectives for the action (see SSHCP EIS/EIR Chapter 1.3). Therefore, the alternative was not carried forward for detailed analysis.
Maximize Protection of Vernal Pool Acres in the Mather Core Recovery Area (MCRA)
This potential alternative was derived from recovery criteria for the vernal pool tadpole shrimp to protect 95% of suitable habitat within each species Zone-1 Core Recovery Area (see Table III-1 in USFWS 2005), and would maximize protection of Vernal Pool wetted acres within the Mather Core Recovery Area (MCRA) portion of the Plan Area. However, since the 2005 publication of the Vernal Pool Ecosystem Recovery Plan, several Plan Area urban development projects met the regulatory requirements of the ESA and CWA 404, and received local authorizations and approvals for development. Because new urban development has occurred within in the MCRA since the initial development of this alternative, this alternative was determined to be no longer feasible based on existing conditions, and it was not carried forward for detailed analysis in the SSHCP EIS/EIR.

Preserve 76% of the Total Acreage of the MCRA
In 2011, state and federal regulatory-agencies participating in the SSHCP planning process worked together to delineate a map of the important aquatic resources remaining in the MCRA, which was incorporated into the Conservation Strategy for this HCP alternative. This alternative would preserve 76% of the total 24,245-acres within the MCRA boundary, which also overlaps with a large portion of the County of Sacramento Urban Services Boundary (USB) and the Plan Area’ UDA. The Lead Agencies determined that this amount of habitat preservation within the MCRA would not accommodate expected population growth in the Plan Area, would restrict the housing, economic development, and infrastructure currently authorized or planned within the Sacramento County USB and the SOIs of Galt and Rancho Cordova, and would shift future urban development pressure to other areas of Sacramento County that are currently unplanned for urban growth. Because this alternative could result in urban expansion outside the Sacramento County USB and outside the currently adopted SOIs for Galt and Rancho Cordova, it was determined not to meet Purpose/Objective # 16. In addition, this alternative would not achieve Purpose/Objectives # 1 and # 5, which require protection of enough habitat in the Plan Area to conserve every SSHCP Covered Species in the Plan Area, including protection of adequate foraging habitat for Swainson's hawk and white-tailed kite in the rural areas that would be developed under this alternative. Analysis by the Permit Applicants also determined that this alternative would not meet Purpose/Objective # 15 because current land prices within the USB boundary make acquisition of parcels needed to preserve 76% of the MCRA economically infeasible for an operational HCP in south Sacramento County. The Permit Applicants also determined that this alternative would be likely to require local jurisdictions to exercise eminent domain to acquire several parcels within the MCRA, which would be inconsistent with Purpose/Objective #18. This alternative also conflicts with Purpose/Objective # 17, which specifies that master plans already approved by Sacramento County, Galt, Rancho Cordova, and the Sacramento County Water Agency (SCWA) be included as Covered Activities in any HCP for south Sacramento County. Because this alternative would not achieve several purposes and objectives of the action (see SSHCP EIS/EIR Chapter 1.3), this alternative was not carried forward for detailed analysis.

Preserve 49% of the Total Acreage of the MCRA
Similar to the previous potential alternative, the regulatory agencies participating in the SSHCP planning process delineated a map of the “most essential” vernal pool species habitat remaining in the MCRA, which was incorporated into the Conservation Strategy for this HCP alternative. The acreage of the “most-essential” vernal-pool species habitat covered 49% of the MCRA, or 11,880 acres of Vernal Pool ecosystem, and included preserving approximately 342 wetted acres of vernal pools within the MCRA. The Lead Agencies determined that this amount of habitat preservation within the MCRA would not accommodate expected population growth in the Plan
Area, would restrict the housing, economic development, and infrastructure already planned within the Sacramento County USB and the SOIs of Galt and Rancho Cordova, and would shift future urban development pressure to other areas of Sacramento County that are currently unplanned for urban growth. Therefore, for the same reasons discussed above for the alternative titled "Preserve 76% of the Total Acreage in the MCRA", this alternative would not achieve several purposes and objectives of the action (see SSHCP EIS/EIR Chapter 1.3), and this alternative was not carried forward for detailed analysis.

Remove Lands Outside USB from the Plan Area Boundary
Under this potential alternative, the size of the SSHCP Plan Area would be much smaller. This Plan Area would encompass the 35,570-acre portion of the current Plan Area that is located within Sacramento County’s USB, and would not include the areas of south Sacramento County that are outside the current USB boundary. This alternative was identified during the initial public scoping for the SSHCP EIS/EIR. Under this alternative, the Plan Area would be limited to approximately 86,480 acres. However, approximately 35,570 acres of that potential 86,480-acre Plan Area are already a “developed” landcover type, and 10,585 acres are already a “farmland” landcover type (Cropland, Irrigated Pasture-Grassland, Vineyard, or Orchard). Constraining the Plan Area to the USB boundary would not allow the HCP's Conservation Strategy to achieve many of the needs, purposes, and objectives for the action (see SSHCP EIS/EIR Chapter 1.3). For example, this alternative could not maintain in perpetuity each type of natural community that is currently present in south Sacramento County, as required by Purpose/Objective # 1. This alternative would not protect large, contiguous blocks of species habitat, as required by Purpose/Objective # 4, and would not allow the Permit Applicants to implement approved transportation-infrastructure master plans outside the USB, as required by Purpose/Objective # 15. Finally, because this alternative would require all species and habitat conservation to occur inside the USB, the alternative would not accommodate expected population growth in the Plan Area, and would restrict the housing, economic development, and infrastructure currently approved or planned within the Sacramento County USB and the SOIs of Galt and Rancho Cordova. Because this alternative would not achieve several needs, purposes, and objectives of the action, this alternative was not carried forward for detailed analysis.

Remove Lands West of I-5 from the Plan Area Boundary
Under this potential alternative, the size of the Plan Area would be smaller, with the western border of the Plan Area boundary located at Interstate-5. The HCP conservation strategy would not include lands located west of Interstate-5 and east of the Sacramento River because portions of that area may be at risk from flooding and future sea level rise. This alternative was identified during the initial scoping for the SSHCP EIS/EIR. The Lead Agencies determined that this alternative would not achieve Purpose/Objective #6 to maintain adequate amounts of roosting and foraging habitat for the greater sandhill crane. This alternative would not achieve Purpose/Objective #5 to maintain adequate amounts of “high-value” foraging habitat for Swainson’s hawk and other avian Covered Species that forage in crop fields and irrigated pasture landcovers. In addition, here may not be sufficient number of suitable lands east of Interstate-5 with landowners willing to sell habitat conservation-easements to the SSHCP—consequently, this alternative may not be able to offset all Covered Activity effects on Swainson’s hawk and other avian Covered Species. Because this alternative would not achieve several purposes and objectives of the action, this alternative was not carried forward for detailed analysis.
Reduce Impacts to High-Quality Swainson’s Hawk Habitat in the Elk Grove SOI

This alternative was identified during the initial public scoping for the SSHCP EIS/EIR. At that time, the City of Elk Grove was one of the SSHCP Permit Applicants, and all lands within in the Elk Grove SOI boundary were included in the Plan Area. When the City of Elk Grove withdrew from the SSHCP planning effort in 2014, lands within the Elk Grove SOI were removed from the Plan Area boundary. The removal of the Elk Grove SOI from the Plan Area greatly reduced the acres of urban development Covered Activities that would occur under the SSHCP, and removed the areas of high-quality Swainson’s hawk habitat described in this alternative. Because this alternative would no longer avoid or reduce the environmental effects of the SSHCP, this alternative was not carried forward for detailed analysis.

3.5 The Environmentally Preferable Alternative under NEPA

NEPA regulations requires that a Record of Decision (ROD) must identify all alternatives that were considered by the agency in reaching its decision, and specify the alternative (or alternatives) that were considered to be “environmentally preferable” (see 40 CFR 1505.2(b)). Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative that best protects, preserves, and enhances historic, cultural, and natural resources (CEQ 1981). The identification of the environmentally preferable alternative may involve difficult judgements, particularly when one environmental value must be balanced against another environmental value (CEQ 1981; 43 CFR 46.450).

The impacts of each SSHCP EIS/EIR alternative on the different elements of the human environment were analyzed in SSHCP EIS/EIR Chapters 4 through 17, and summarized in the SSHCP EIS/EIR's Executive Summary. The Service determined that the Proposed Action Alternative would provide the greatest level of preservation of remaining natural communities present in the Plan Area, especially the natural communities located outside the UDA boundaries. Preservation of these natural communities would provide greater preservation of habitat for all Plan Area native species, including the SSHCP Covered Species, as well as providing greater preservation of Plan Area aquatic resources. The Proposed Action Alternative would provide more and wider habitat linkages between existing and new preserves, providing more wildlife movement corridors and maintaining greater hydrologic connectivity in the Plan Area. For all of these reasons, the benefits to native species, benefits to natural communities, and benefits to watersheds would be greatest under the Proposed Action Alternative. The Proposed Action Alternative would also have minor beneficial effects to land use compatibility (see SSHCP EIS/EIR Chapter 4), the protection of agricultural resources (see SSHCP EIS/EIR Chapter 6), hydrology and water quality (see SSHCP EIS/EIR Chapter 7), cultural resources (see SSHCP EIS/EIR Chapter 11), demand for expanded public services and facilities (see SSHCP EIS/EIR Chapter 12), transportation planning and transportation infrastructure (see SSHCP EIS/EIR Chapter 13), air quality (see SSHCP EIS/EIR Chapter 14), and greenhouse gases (see SSHCP EIS/EIR Chapter 15). Therefore, the Proposed Action Alternative is identified by the Service as the environmentally preferable alternative under NEPA regulations.

4.0. PUBLIC COMMENT

An initial Notice of Intent (NOI) to prepare the EIS/EIR was published in the Federal Register on June 10, 2008 (73 FR 32729). Four public meetings were held in different Plan Area locations in 2008. Approximately 80 comments, including oral comments, letters, and email messages, were received in 2008. Because of changes to the Plan Area boundary and other changed conditions, a revised NOI was published in the Federal Register on November 4, 2013 (78 FR 66058). Two
additional public scoping meetings were held in late 2013. A total of 84 comments were received in 2013 and early 2014. Scoping comments received and the major issues identified are summarized in Appendix B of the draft and final SSHCP EIS/EIR, titled “Summary of Process to Determine the Scope of the EIS/EIR (Scoping).” Several years of close coordination between the Permit Applicants, the Service, CDFW, and the USACE resulted in the publication of a Notice of Availability in the Federal Register for the Draft EIS/EIR and Draft SSHCP on June 2, 2017 (82 FR 25612). Three public meetings on the draft documents were held at different Plan Area locations. Public comments on the draft documents were accepted through September 5, 2017. A total of 26 comment letters and e-mails were received, which included approximately 361 individual comments on the draft documents. Most comments received on the draft documents were editorial, recommended factual corrections, or requested clarification of specific SSHCP processes or implementation details that were included in the draft SSHCP and the description of the EIS/EIR Proposed Action Alternative. None of the comments received on the draft documents raised new issues, identified new alternatives not considered, or identified substantial concerns with regard to the environmental impact analyses presented in the draft EIS/EIR. All comments received on the draft documents and our response to each comment were presented in Chapter 19 of the Final EIS/EIR. The Final EIS/EIR was also annotated to show text corrections and clarifying text added in response to the public comments received on the Draft EIS/EIR and the Draft SSHCP.

The Notice of Availability for the Final SSHCP EIS/EIR and Final SSHCP was published in the Federal Register on May 15, 2018 (83 FR 22510). The public inspection of the final documents required by NEPA regulation 40 CFR 1506.10(b) closed on June 21, 2018 (83 FR 23461). The EIS/EIR lead agencies (the Service and Sacramento County) received four comment letters on the final documents during the public inspection period: one from the Environmental Protection Agency (USEPA), one from the state Delta Stewardship Council, an email message from the Cultural Resources Manager of the United Auburn Indian Community (UAIC) of the Auburn Rancheria, and a joint letter sent from the Environmental Council of Sacramento, the Sierra Club, the Sacramento region’s Habitat 2020 organization, and the Save of Sandhill Cranes organization. A summary of the comments received on the final documents, and our responses to each comment received, are attached as Appendix A of this ROD. Each public comment received was considered during the Service’s decision-making process. Following the end of the final inspection period, the Sacramento County Board of Supervisors also received three of letters expressing support of the Final SSHCP, recommending Sacramento County certification of the Final SSHCP EIS/EIR as required by CEQA regulation, and recommending Sacramento County adopt local ordinances that would implement the SSHCP. The Sacramento County Board of Supervisors also received one written comment from a County Planning Advisory Council (i.e. the Cosumnes CPAC) expressing concern about the SSHCP process for approving conservation-easements on farmland, and lack of Farm Bureau representation in the future South Sacramento Conservation Agency (the SSHCP Implementing Entity).

Comments received from the UAIC and comments received from the Cosumnes CPAC were resolved by the Permit Applicants during their public processes to approve the Final SSHCP and approve associated local ordinances, as further described in Appendix A of this ROD.

5.0. THE DECISION AND RATIONALE FOR THE DECISION

Decision

NEPA regulations require Federal agencies consider the environmental impacts of all federal decisions on the human environment, and prepare an environmental impact statement for major
federal actions significantly affecting the quality of the human environment. At the time of a
decision, NEPA regulations require the Federal agency to prepare a ROD stating the decision,
identifying the alternatives considered in reaching its decision, specifying the alternative which was
considered to be environmentally preferable, discussing all relevant factors the agency used in
making its decision, stating whether all practicable means to avoid or minimize environmental harm
from the selected alternative have been adopted, and if not, why not, and adopting a monitoring and
enforcement program for mitigation, if applicable.

The proposed SSHCP and alternatives have been described and fully evaluated in our SSHCP
EIS/EIR. Based upon the review of the alternatives and their environmental consequences
described in our SSHCP EIS/EIR, and based on the content of the Final SSHCP, the final
Implementing Agreement, our Opinion, and our Findings—it is the decision of the Service to adopt
the SSHCP EIS/EIR’s Proposed Action Alternative (the proposed SSHCP), and to issue an
incidental take permit to the six Permit Applicants pursuant to section 10(a)(1)(B) of the ESA for a
period of 50 years, which will authorize the incidental take of 20 animal species and will extend
assurances under the Service's "No Surprises" rule to all 28 animal and plant species covered by the
SSHCP.

Rational for the Decision

Among all alternatives considered, the Proposed Action Alternative (the SSHCP) was selected
because it best satisfied the purposes and need for action that were identified in Chapter 1.3 of the
SSHCP EIS/EIR. The Proposed Action Alternative (the proposed SSHCP) most effectively
addressed the conservation needs of each Covered Species, while taking into account the Applicants’
legitimate private development and land-conservation plans for the Plan Area. As discussed in
Section 3.5 above, the Proposed Action Alternative was identified by the Service as the
environmentally preferred alternative. In making our decision, the Service also evaluated each of the
alternatives relative to applicable laws, regulations, and policies, and we considered all relevant
issues, concerns, and opportunities raised by agencies, organizations, and individuals during the
planning and public-review processes.

The Proposed Action Alterative and would preserve large, contiguous areas of vernal pool grassland
in the southeastern portion of the Plan Area, would provide comprehensive protection of multiple
native species, and would conserve, enhance, and restore the habitats and ecosystems upon which
these species depend, to ensure their long-term survival in the Plan Area. In doing so, the Proposed
Action Alternative also incorporated all practicable means of avoiding or minimizing environmental
harm. As discussed in the Service's Findings (USFWS 2018b), the Proposed Action Alternative
meets each statutory criteria for issuance of a section 10(a)(1)(B) permit under the ESA. As
discussed in the Service’s Opinion (USFWS 2018a), implementation of the SSHCP would not
jeopardize the continued existence of any Covered Species, and would not adversely modify
designated Critical Habitat.

The decision to adopt the Proposed Action Alternative also rests on the analysis presented in the
SSHCP EIS/EIR, which compared the predicted environmental consequences of each action
alternative against the predicted environmental consequences No Action Alternative. As
demonstrated in the SSHCP EIS/EIR, the conservation of biological and aquatic resources under
the Proposed Action Alternative was superior to the No Action Alternative and superior to the
Reduced Term Alternative. The SSHCP EIS/EIR identified no significant adverse effect or
significant cumulative effect of the Proposed Action Alternative on any of the 28 environmental
resource categories studied. The EIS/EIR determined that the Proposed Action Alternative would
result in a less than significant adverse effects to 2 resources (mineral resources and mosquito abatement), result in no effect to 3 resources (housing, recreation, solid-waste disposal), result in a minor beneficial effect to 20 resources, and would result in a significant beneficial effect to 2 resources (valley grasslands and vernal pool ecosystems), when compared to the effects of the No Action Alternative (see SSHCP EIS/EIR Table ES-1). In addition, the Proposed Action Alternative was determined to result in a significant beneficial effect to 24 special-status plant and animal species (including each vernal pool Covered Species), when compared to the effects of No Action Alternative on the species (see SSHCP EIS/EIR Table ES-2).

The Conservation Strategy of the Proposed Action Alternative will fully mitigate unavoidable adverse effects resulting from Covered Activities. In total, the SSHCP Covered Activities could result in the conversion and loss of up to 33,497 acres of natural landcovers and species suitable-habitats within the Plan Area. The Permit Applicants (the future Permittees) have agreed to permanently protect, manage, and monitor a minimum of 36,282 acres of natural communities and Covered Species modeled habitats, as described above in Sections 2.3 and 3.2 of this ROD. The improved habitat conditions will be conducive to species fitness and fecundity because the improved habitat will enhance breeding, sheltering, and feeding opportunities for existing and future generations of each Covered Species. The improvement of habitat conditions within the interconnected SSHCP Preserve System will also provide additional areas of high quality suitable habitat for dispersing individuals, which is expected to expand the existing distribution of most Covered Species within the Plan Area.

The proposed SSHCP Conservation Strategy described in Chapters 7, 8, and 9 of the Final SSHCP will be fully funded. The mitigation measures, monitoring, and enforcement components of the SSHCP, described above in Section 2.3 of this ROD and in the Final SSHCP, have been adopted as part of the Service’s decision. The Service’s decision includes these assumptions about the implementation of the proposed SSHCP:

- Effects will be consistent with and will not exceed the analysis presented in Chapter 6 of the Final SSHCP.
- Effects to Covered Species will be minimized through Permittee enforcement of all applicable SSHCP Conditions and the Avoidance and Minimization Measures (AMMs) described in Chapter 5 of the Final SSHCP;
- Effects to Covered Species will be mitigated by the implementation of the entire SSHCP Conservation Strategy, in accordance with Chapters 5, 7, 8, and 11 of the Final SSHCP.
- All habitat lands preserved, enhanced, re-established, and/or created under the SSHCP will be monitored and will be adaptively managed, in accordance with Chapter 8 and Chapter 11 of the Final SSHCP.
- SSHCP AMMs implemented by Covered Activities will be monitored. The SSHCP AMMs will be adaptively modified if needed, based on monitoring results, or based on the results of the SSHCP Special Studies that are discussed in Chapter 8 of the Final SSHCP.
- Covered Activity effects to aquatic resources will be minimized through the future Permittees' enforcement of the SSHCP Aquatic Resources Program (see Appendix J of the SSHCP EIS/EIR).
- Covered Activity effects to cultural and tribal resources within the Plan Area will be minimized through the Permittee’s enforcement of the SSHCP Cultural Resources Management Program (Sacramento County et al. 2019a, 2019b).
- Proposed modifications to the SSHCP will be conducted in accordance with the procedures described in Chapter 9.10 of the Final SSHCP.
• The SSHCP will be adequately funded, as described in Chapters 9, 10, and 12 of the Final SSHCP.

For the reasons discussed in this document, the Service's decision to adopt the Proposed Action Alternative is consistent with our biological and conference Opinion (USFWS 2019a) and our Findings (USFWS 2019b) for the South Sacramento Habitat Conservation Plan. Therefore, it is our decision to adopt the Proposed Action Alternative and to issue an incidental take permit to the six Permit Applicants (the future Permittees) pursuant to section 10(a)(1)(B) of the ESA, authorizing the incidental take of 20 animal Covered Species and extending assurances under the Service's "No Surprises" rule to all 28 plant and animal Covered Species addressed in the South Sacramento Habitat Conservation Plan, for a period of 50 years.

7 May 2019

Date

Michael Fris
Assistant Regional Director
Pacific Southwest Region
U.S. Fish and Wildlife Service
REFERENCES


APPENDIX A: SUMMARY OF COMMENTS RECEIVED ON THE FINAL EIS/EIR FOR THE SSHCP; SERVICE RESPONSES; and SUMMARY OF THE ERRATUM FOR THE FINAL SSHCP.

We received four comment letters on the final documents during the 30-day final EIS public inspection period required by NEPA regulations:

1. **Letter sent jointly from (1) the Environmental Council of Sacrament, (2) the Sierra Club, (3) the Habitat 2020 organization, and (4) the Save Our Sandhill Cranes organization.**

   A joint letter was sent on June 9, 2018 by four local environmental groups that have participated in the development of the SSHCP over many years, some since the inception of the SSHCP in the year 2001. The letter requested clarification of three Lead Agency responses to public comments on the Draft EIS/EIR (presented in Chapter 19 of the Final SSHCP EIS/EIR), including (1) clarification if Sacramento County and the other future land-use authority Permittees (i.e. City of Galt, and City of Rancho Cordova) will prepare guidance that can be used by their planning departments to assure that future planning decisions and future Covered Activity project approvals will always be consistent with the permitted SSHCP including the SSHCP Conservation Strategy; (2) clarification on pesticide use in future SSHCP agricultural easements and monitoring of potential effects from pesticide use in SSHCP agricultural easements, and (3) clarification that greater sandhill crane habitat preservation within SSHCP PPU-6 would shift over time to lands located outside the Sacramento River floodplain, if necessary in response to future sea level rise. Minor clarifications to these elements of the operational SSHCP will be included in the *Erratum to the Final SSHCP* (County of Sacramento 2019a). These minor clarifications will have no effect on the impact analyses of any alternative studied in the Final EIR/EIR, and will not affect the Service’s decision described in Section 5.0 of this ROD.

2. **Letter from Delta Stewardship Council.**

   A letter from the Delta Stewardship Council (a California State Agency) was received on June 28, 2018. The letter expresses support for Sacramento County's certification of the Final SSHCP EIS/EIR under CEQA and Sacramento County's adoption of the SSHCP, and applauds the planned protection of habitat, open space, and agriculture lands that will occur under the operational SSHCP. The letter also acknowledged Lead Agency responses to the Delta Stewardship Council's comments on the Draft SSHCP EIS/EIR, which were presented in Chapter 19 of the Final SSHCP EIS/EIR. The June 28, 2018 letter also asks Sacramento County to provide the Council with a Certification of Consistency that describes how the operational SSHCP will be consistent with the Delta Plan policies and State Water Code section 85225. Sacramento County provided the Certification of Consistency to the Delta Stewardship Council on November 14, 2018. No public appeals were submitted on the Certification of Consistency for the South Sacramento Habitat Conservation Plan. The Delta Stewardship Council provided a Determination of Consistency for the South Sacramento Habitat Conservation Plan on December 14, 2018.

3. **Letter from U.S. Environmental Protection Agency (EPA).**

   The EPA letter was received on June 21, 2018. The letter confirmed EPA’s rating of “Lack of Objections” on the Draft SSHCP EIS/EIR, and thanked the EIS/EIR Lead Agencies for
responding to EPA's request that the Final SSHCP EIS/EIR include additional information about the project-level analysis of the Capital SouthEast Connector project, which is one of the SSHCP Covered Activities (described in Chapter 5.2.1 of the Final SSHCP, and described in Chapter 2.4 of the Proposed Action Alternative).

The June 21, 2018 EPA letter also notes that concurrent with their review of the final SSHCP EIS/EIR, Caltrans (the California Department of Transportation) released for public review a Draft Environmental Assessment (D2 Draft EA) for one segment of the Capital SouthEast Connector project: The D2 Expressway Project (Caltrans 2018). The EPA letter requests that the Service's ROD for the final SSHCP EIS/EIR confirm that the D2 Expressway Project is a Covered Activity under the proposed SSHCP (the Proposed Action Alternative), and also reference the current schedule for the D2 Expressway Project Environmental Assessment.

The Service confirms that the D2 Expressway Project is a SSHCP Covered Activity. Because it is a SSHCP Covered Activity, the D2 Expressway Project will be covered under the ESA section 10(a)(1)(B) incidental take permit issued by the Service to the SSHCP. Caltrans expects to complete the Final Environmental Assessment for the D2 Expressway Project (D2 Final EA) in 2019. However, construction of the D2 Expressway Project will not begin until the summer or fall of 2023. After construction is initiated, construction would continue for 24 to 36 months.

The June 21, 2018 EPA letter also states that shortly after June 5, 2018, Caltrans informed the EPA (through their project consultant), that the estimate of impacts to waters of the United States presented in the D2 Draft EA (Caltrans 2018) was not accurate, and that an updated estimate of impacts to waters of the United States would be provided to the EPA. The June 21, 2018 EPA comment letter requests that the Service's ROD for the SSHCP EIS/EIR include the updated estimate of the D2 Expressway Project's impacts to waters of the United States. Table 4 below provides updated information for D2 Expressway Project impacts to the waters of the United States that also provide suitable habitat for federally listed vernal pool species.

<table>
<thead>
<tr>
<th>Impacts (Direct and Indirect)</th>
<th>Mitigation ratios(^1) and resulting mitigation acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vernal pool = 3.01 acres</td>
<td>3.01 x 3 = 9.03 acres</td>
</tr>
<tr>
<td>Seasonal wetlands = 2.82 acres</td>
<td>2.82 x 3 = 8.46 acres</td>
</tr>
<tr>
<td>Swales = 0.52 acres</td>
<td>0.52 x 3 = 1.56 acres</td>
</tr>
<tr>
<td><strong>Total = 6.35 acres</strong></td>
<td><strong>Total = 19.05 acres</strong></td>
</tr>
</tbody>
</table>

\(^1\) Mitigation ratios are consistent with the other SSHCP "on-ramp" projects.

4. E-mail message from the Cultural Resources Manager of the United Auburn Indian Community of the Auburn Rancheria.

On May 14, 2018, the EIS/EIR lead agencies (the Service and Sacramento County), the USACE, and the CDFW received an e-mail message from the Cultural Resources Manager of the United Auburn Indian Community of the Auburn Rancheria (UAIC) stating that the UAIC had reviewed the Final SSHCP EIS/EIR, and are requesting additional California Environmental Quality Act (CEQA) mitigation measures be added to the Proposed Action Alternative (the proposed SSHCP) to assure that Covered Activities will appropriately avoid tribal and cultural resources present in the Plan Area, under CEQA requirements. The May 14, 2018 e-mail
included five attachments, each with an individual mitigation-measure previously developed by the UAIC to address different categories of ground-disturbing activities that may occur within any the UAIC’s aboriginal territory, including certain portions of the Plan Area. In response to this comment on the final documents, the land-use-authority Applicants (i.e. Sacramento County, Galt, and Rancho Cordova) developed the SSHCP Cultural Resources Management Program (County of Sacramento et al. 2019b) for inclusion in the Erratum to the Final SSHCP (County of Sacramento et al. 2019a). Similar to the SSHCP Aquatic Resources Program (see Appendix J in the SSHCP EIS/EIR), the future land-use authority Permittees will require all SSHCP Covered Activities to comply with requirements of the SSHCP Cultural Resources Management Program.

The draft SSHCP Cultural Resources Management Program was developed by the Applicants in close coordination with the UAIC, other tribes, and archeologists from the USACE. The UAIC and other local tribes have expressed support of the SSHCP Cultural Resources Management Program, and all issues identified in the UAIC’s May 14, 2018 e-mail message have been resolved. The adoption of the SSHCP Cultural Resources Management Program by each land-use authority Permittee (i.e. Sacramento County, City of Galt, and City of Rancho Cordova), and their adoption of a governmental resolution, ordinance, or other measure that enforces the implementation of the SSHCP Cultural Resources Management Program, is a condition of the Service’s ESA section 10(a)(1)(B) permit. The inclusion of a Cultural Resources Management Program in the SSHCP will not change the impact analyses of any alternative studied in the Final EIR/EIR, and will not affect the Service’s decision described in Section 5.0 of this ROD.

In addition, following the end of the 30-day Final SSHCP EIS/EIR inspection period required under NEPA, the Sacramento County Board of Supervisors received two letters expressing support of the SSHCP, and recommending the Sacramento County Board of Supervisors take actions to (1) certify the Final SSHCP EIS/EIR under CEQA, (2) formally adopt the SSHCP, and (3) formally adopt the associated ordinances that would allow Sacramento County to implement the SSHCP:

1. **A joint letter dated August 6, 2018** and signed by (1) Angelo K. Tsakopoulos, AKT Investments, Inc.; (2) Thomas P. Winn, Winn Communities; (2) Larry Gualco, Lennar Homes of California, Inc. and; (3) Bob Shattuck, Shattuck Community Planning.

2. **A joint letter dated August 19, 2018** and signed by representatives of (1) North State Building Industry Association; (2) The Mother Lode Chapter of the Sierra Club; (3) The Sacramento Area Creeks Council; (4) The Institute for Ecological Health; (5) The Friends of Swainson’s Hawk; (6) Habitat 2020; (7) The Sacramento Metropolitan Chamber of Commerce; (8) The Environmental Council of Sacramento; and (9) The California Native Plant Society.

In addition, the Sacramento County Board of Supervisors received oral and written comments on August 8, 2018 from a local Sacramento County Planning Advisory Council (i.e. The Cosumnes CPAC). The CPAC comments expressed concerns about (1) the process outlined in the Final SSHCP for future approvals of farmland conservation-easements that would be part of the SSHCP Preserve System, and (2) concerns that local agricultural and farming stakeholders are not adequately represented in the future South Sacramento Conservation Agency (the SSHCP Implementing Entity), as described in Chapter 9.3.4 of the Final SSHCP (Sacramento County et al. 2018). To address these concerns, the Permit Applicants adjusted the proposed organizational structure of the South Sacramento Conservation Agency to add four additional entities as voting members of the SSCA’s Implementation Review Committee (i.e. one rangeland agricultural representative, one irrigated cropland agricultural specialist, one environmental community representative, and one
development community representative). This minor change to the proposed organizational structure of the future South Sacramento Conservation Agency is described in the *Erratum to the Final South Sacramento Habitat Conservation Plan* (Sacramento County et al. 2019a). These minor changes to the organizational structure of the future South Sacramento Conservation Agency will have no effect on the impact analyses of any alternative studied in Final EIR/EIR, and will not affect the Service’s decision described in Section 5.0 of this ROD.