

NATIVE ENDANGERED & THREATENED SP. HABITAT CONSERVATION PLAN
E & T WILDLIFEPermit Number: **TE35886D-0**
Effective: 6/12/19 Expires: 6/13/19

Issuing Office:

Department of the Interior
U.S. FISH & WILDLIFE SERVICE
Endangered Species Permit Office
2800 Cottage Way, Suite W-2606
Sacramento, CA 95825-1846
permitsR8ES@fws.gov

ASSISTANT REGIONAL DIRECTOR

Permittee:

**SOUTH SACRAMENTO HCP PERMITTEES
SEE BELOW
SACRAMENTO, CA 95814**

Name and Title of Principal Officer:

SEE LIST BELOW - PLANNING DIRECTOR

Authority: Statutes and Regulations: 16 USC 1539(a), 16 USC 1533(d), 16 USC 668-668d; 50 CFR 17.22, 50 CFR 17.32, 50 CFR 22.11, 50 CFR 13.

Location where authorized activity may be conducted:

Within 317,656 acres of southern Sacramento County, California, as defined by Chapter 1.2.1 and Figure 1-1 of the February, 2018, Final South Sacramento Habitat Conservation Plan.

Reporting requirements:

See permit conditions for reporting requirements

Authorizations and Conditions:

A. General conditions set out in Subpart B of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accordance with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

B. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local tribal, or other federal law.

C. Valid for use by permittee named above.

C.1. The six South Sacramento Habitat Conservation Plan Permittees are:

- a. the South Sacramento Conservation Agency
- b. the County of Sacramento, California
- c. the Sacramento County Water Agency
- d. the City of Rancho Cordova, California
- d. the City of Galt, California
- e. the Joint Powers Authority for the Capital SouthEast Connector Project

D. Submission of permit applications by the County of Sacramento, the Sacramento County Water Agency, the City of Rancho Cordova, the City of Galt and the Joint Powers Authority for the Capital SouthEast Connector Project (collectively "the



Permittees") serves as evidence that the Permittees and their designated agents agree to abide by the terms of this permit and all applicable sections of *Title 50 Code of Federal Regulations, Part 13* (General Permit Procedures) and *Part 17* (Endangered and Threatened Wildlife and Plants). Civil and criminal penalties for failure to comply with permit conditions are described in section 11 of the Endangered Species Act of 1973, as amended (Act).

D.1. All sections of *Title 50 Code of Federal Regulations Part 13, section 17.22(b)*, and *section 17.32(b)* are conditions of this permit. *Title 50 Code of Federal Regulations, Part 13* (General Permit Procedures), *section 17.22(b)* (Endangered Wildlife Permits), and *section 17.32(b)* (Threatened Wildlife Permits) are provided to the Permittees in Attachment 1.

E. The Permittees shall ensure that U.S. Fish and Wildlife Service (Service) personnel are given appropriate access (as defined under *50 Code of Federal Regulations 13.21 (e)(2)*) to monitor compliance with this permit.

F. The incidental take authorization granted by this permit is subject to the full compliance and full implementation of the February 2018 Final South Sacramento Habitat Conservation Plan (Final SSHCP), including the 2019 Erratum to the Final South Sacramento Habitat Conservation Plan, which are hereby incorporated into this permit by reference.

G. The effective date of the permit will be the first business day after all of the following: (1) the formation of the Implementing Entity (the South Sacramento Conservation Agency); (2) the adoption of the implementing ordinances described in Chapter 9.7 of the Final SSHCP by each of the land-use-authority Permittees (i.e. the County of Sacramento, the City of Rancho Cordova, and the City of Galt); (3) the SSHCP Implementing Agreement has been fully executed by all Parties; and (4) the Service has issued the Permit.

H. The Permittees and their designated agents are authorized to incidentally take (injure, kill, and or harm) the following five listed wildlife Covered Species: the endangered vernal pool tadpole shrimp (*Lepidurus packardii*), the threatened vernal pool fairy shrimp (*Branchinecta lynchi*), the threatened valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), the California tiger salamander Central Valley DPS (*Ambystoma californiense*), and giant gartersnake (*Thamnophis gigas*). Incidental take authorization is effective for these five wildlife species upon the effective date of the permit (as identified in F above). The following 15 wildlife Covered Species are not currently listed under the Act: the mid-valley fairy shrimp (*Branchinecta mesovallensis*), Ricksecker's water scavenger beetle (*Hydrochara rickseckeri*), western spadefoot (*Spea hammondi*), western pond turtle (*Actinemys marmorata*), Cooper's hawk (*Accipiter cooperii*), tricolored blackbird (*Agelaius tricolor*), western burrowing owl (*Athene cunicularia hypugaea*), ferruginous hawk (*Buteo regalis*), Swainson's hawk (*Buteo swainsoni*), northern harrier (*Circus cyaneus*), white-tailed kite (*Elanus leucurus*), greater sandhill crane (*Grus canadensis tabida*), loggerhead shrike (*Lanius ludovicianus*), western red bat (*Lasiurus blossevillii*), and American badger (*Taxidea taxus*). Incidental take authorization of the currently non-listed Covered Species will become effective concurrent with their listing as threatened or endangered under the Act, to the extent that their take is prohibited by the Act. While take of plant species is not prohibited under the Act, the endangered Sacramento Orcutt grass (*Orcuttia viscida*), the threatened slender Orcutt grass (*Orcuttia tenuis*), dwarf downingia (*Downingia pusilla*), Boggs Lake hedge-hyssop (*Gratiola heterosepala*), Ahart's dwarf rush (*Juncus leiospermus* var. *ahartii*), legenere (*Legenere limosa*), pincushion navarretia (*Navarretia myersii*), and Sanford's arrowhead (*Sagittaria sanfordii*) are included on the Covered Species list in recognition of the conservation benefits provided for them under the SSHCP. The assurances provided to the Permittees under the No Surprises Rule at *50 CFR 17.3*, *50 CFR 17.22(b)(5)*, and *50 CFR 17.32(b)(5)* extend to all Covered Species. Take of Covered Species must be incidental to the otherwise lawful Covered Activities described in Chapter 5 of the Final SSHCP.

Incidental take in terms of numbers of individuals of the Covered Species may be difficult to detect because of population dynamics, small body size, seasonal fluctuations in populations, habitat type utilized (i.e. underground burrows), rapid carcass deterioration, the likelihood that remains will be removed by a scavenger, the likelihood that remains will be indistinguishable amongst disturbed soil debris, and because avian and mobile terrestrial species may move some distance when injured and source of injury may be difficult to determine in mobile species. Therefore, the anticipated take of each Covered Species, and the Service's mechanism to quantify when Covered Species take would be considered to be exceeded as a result of implementing the SSHCP, can be described by the removal or degradation of Covered Species modeled habitats, as listed below:



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Covered Species and their Modeled Habitats	Take Limit; Acres of Perm. Habitat Loss
1. Vernal pool tadpole shrimp	
Aquatic Vernal Pool Ecosystem Habitats:	787
Upland Vernal Pool Ecosystem Habitats:	16,472
Total Acres of Species Modeled Habitat:	17,259
2. Vernal pool fairy shrimp	
Aquatic Vernal Pool Ecosystem Habitats:	787
Upland Vernal Pool Ecosystem Habitats:	16,472
Total Acres of Species Modeled Habitat:	17,259
3. Mid-valley fairy shrimp	
Aquatic Vernal Pool Ecosystem Habitats:	633
Upland Vernal Pool Ecosystem Habitats:	12,006
Total Acres of Species Modeled Habitats:	12,639
4. Valley elderberry longhorn beetle	
Total Acres of Modeled Habitat:	591
5. Ricksecker's water scavenger beetle	
Aquatic Vernal Pool Ecosystem Habitats:	761
Upland Vernal Pool Ecosystem Habitats:	16,472
Total Acres of Species Modeled Habitat:	17,233
6. California tiger salamander (Central California Distinct Population Segment)	
Aquatic Habitats:	80
Upland Habitats:	1,677
Total Acres of Species Modeled Habitat:	1,757
7. Western spadefoot	
Aquatic Habitats:	1,164
Upland Habitats:	22,043
Total Acres of Species Modeled Habitat:	23,207
8. Western pond turtle	
Aquatic Habitats:	316
Upland Habitats:	10,656
Total Acres of Species Modeled Habitat:	10,972
9. Giant gartersnake	
High Value Aquatic Habitats:	104
Other Aquatic Habitats:	65
High Value Upland Habitats:	502
Other Upland Habitats:	1,687
Total Acres of Species Modeled Habitat:	2,358
10. Cooper's hawk	
Nesting/Foraging Habitats	600
Foraging Habitats	38
Total Acres of Species Modeled Habitat:	638
11. Tricolored blackbird	
Nesting/Foraging Habitats	27,531
Foraging Habitats	3,527
Total Acres of Species Modeled Habitat:	31,058
12. Western burrowing owl	
Nesting/Foraging Habitats	30,086
Foraging Modeled Habitats	892
Total Acres of Species Modeled Habitat:	30,978
13. Ferruginous hawk	
Total Acres of Species Modeled Habitat:	25,491
14. Swainson's hawk	
Nesting Habitats	373
High Value Foraging Habitats	7,413
Other Foraging Habitats	23,326
Total Acres of Species Modeled Habitat:	31,112
15. Northern harrier	



Nesting/Foraging Habitats	30,048
Foraging Habitats	855
Total Acres of Species Modeled Habitat:	30,903
16. White-tailed kite	
Nesting Habitats	376
Nesting/Foraging Habitats	189
Foraging Modeled Habitat	30,754
Total Acres of Species Modeled Habitat:	31,319
17. Greater sandhill crane	
High Value Roosting Habitats	19
Other Roosting Habitats	47
High Value Roosting/Foraging Habitats	2
Other Roosting/Foraging Habitats	122
High Value Foraging Habitats	799
Other Foraging Habitats	6,953
Total Acres of Species Modeled Habitat:	7,942
18. Loggerhead shrike	
Nesting Habitats	591
Nesting/Foraging Habitats	22,014
Foraging Habitats	8762
Total Acres of Species Modeled Habitat:	31,367
19. American badger	
Total Acres of Species Modeled Habitat:	22,780
20. Western red bat	
Roosting/Foraging Habitat	656
Foraging Habitat	23,330
Total Acres of Species Modeled Habitat:	23,986
21. Ahart's dwarf rush	
Total Acres of Species Modeled Habitat:	7,403
22. Boggs Lake hedge-hyssop	
Total Acres of Species Modeled Habitat:	8,724
23. Dwarf downingia	
Total Acres of Species Modeled Habitat:	1,982
24. Legenere	
Total Acres of Species Modeled Habitat:	10,778
25. Pincushion navarretia	
Total Acres of Species Modeled Habitat:	8,258
26. Sacramento Orcutt grass	
Total Acres of Species Modeled Habitat:	7,187
27. Slender Orcutt grass	
Total Acres of Species Modeled Habitat:	7,187
28. Sanford's arrowhead	
Total Acres of Species Modeled Habitat:	10,620

I. The Permittees and their designated agents shall adhere to the description of Covered Activities in Chapter 5 of the Erratum to Final SSHCP; adhere to the conditions on Covered Activities (including all avoidance and minimization measures) described in Chapter 5 of the Erratum to the Final SSHCP; adhere to the impacts described in Chapter 6 of the Erratum to Final SSHCP; adhere to each biological objective and conservation action described in the Erratum to Chapter 7 of the Final SSHCP; adhere to the compliance monitoring, the effectiveness monitoring, the adaptive management, and the data management described in Chapter 8 of the Erratum to the Final SSHCP; adhere to the funding program described in Chapter 12 of the Final SSHCP, and shall implement the remedial measures for changed-circumstances identified in Chapter 11 of the Final SSHCP. The Permittees and designated agent compliance with the Final SSHCP shall include compliance with all clarifications and revisions provided in the 2019 Erratum to the Final South Sacramento Habitat Conservation Plan. The Permittees shall require adherence to the SSHCP as an enforceable term and condition in all applicable contracts with their designated agents.

J. The take authorization granted by this permit does not address or affect the independent obligations of the Permittees or



their designated agents implementing SSHCP Covered Activities to comply with other applicable federal laws, state laws, and local laws, including the California Environmental Quality Act, State Assembly Bill 52 (AB52), the California Endangered Species Act, and the State of California's Fully Protected Species statutes.

K. Reporting Requirements:

K.1. The Permittees shall ensure that the Sacramento Fish and Wildlife Office is contacted immediately regarding any violations or potential violations of the Act. The contact person is the Field Supervisor at the Sacramento Fish and Wildlife Office, at (916) 414-6600.

K.2. The Sacramento Fish and Wildlife Office must be notified within one (1) working day of finding any injured or dead listed species, or within one (1) working day of any unanticipated damage to habitat. Injured listed species must be cared for by a licensed veterinarian or other qualified person(s), such as the Service-approved biologist. Dead individuals must be sealed in a re-sealable plastic bag containing a paper with the date and time when the animal was found, the location where it was found, and the name of the person who found it. The bag containing the specimen should be frozen in a freezer located in a secure site, until instructions are received from the Service regarding the disposition of the dead specimen. The contact person is the Field Supervisor at the Sacramento Fish and Wildlife Office at (916) 414-6600.

K.3. The Permittees and their designated agents shall record all observations of federally listed species (including living, injured, sick, or dead individuals) on California Natural Diversity Data Base (CNDDDB) Field Survey Forms, on the CNDDDB Field Survey Form (Portable Document Format [PDF]) or on the CNDDDB Online Field Survey Form. If hard copy forms are completed, they shall be sent to: The CNDDDB, California Department of Fish and Wildlife, P.O. Box 944209, Sacramento, CA 94244-2090, or the appropriate California Department of Fish and Wildlife at the time the Covered Activity project is implemented. PDF versions of the Online Field Survey Form or any digital data can be sent by electronic mail to CNDDDB@Wildlife.ca.gov <<mailto:CNDDDB@Wildlife.ca.gov>>, or the appropriate California Department of Fish and Wildlife address at the time the Covered Activity project is implemented. The Permittees and their designated agents shall provide the Sacramento Fish and Wildlife Office with copies of all species information submitted to the CNDDDB, including all completed CNDDDB forms and associated maps.

K.4. The results of SSHCP monitoring shall be incorporated into SSHCP Annual Reports and submitted to the Service, as identified in Chapter 8 and Chapter 9 of the Final SSHCP. Chapters 8.4 and 9.9 of the Final SSHCP list the minimum types of information that shall be included in each SSHCP Annual Report. The SSHCP annual reporting cycle will be October 1 of one year through September 30 of the following year, and the SSHCP Annual Report is due to the Service by January 31 following the end of the reporting cycle (to allow time for annual data to be assembled, analyzed and presented). No Annual Report will be required for the first partial permit year. Every five years the Permittees shall prepare a more detailed annual report of the progress and the effectiveness of the SSHCP Conservation Strategy, as identified in Chapter 8.4 of the Final SSHCP. In addition, every 20 years the Permittees shall conduct a comprehensive review of progress toward achieving the SSHCP's Conservation Strategy, and provide that report to the Service at the end of each 20-year implementation period. All SSHCP reports will be submitted to the Chief of the Conservation-Planning Division at the Sacramento Fish and Wildlife Office, 2800 Cottage Way, Suite W-2605, Sacramento, California, 95825-1846.

K.5. A copy of this permit must be on file, and a copy of this permit must be in the possession of each Permittee, their designated agents, and any third parties while they conduct SSHCP Covered Activities. Please refer to the permit number in all correspondence concerning permit activities. Any questions you may have about this permit should be directed to the Field Supervisor, Sacramento Fish and Wildlife Office.

L. The land-use-authority Permittees (i.e. the County of Sacramento, the City of Rancho Cordova, City of Galt) and the South Sacramento Conservation Agency shall develop a South Sacramento Habitat Plan **Cultural Resource Management Program (SSHCP CRMP)** that is acceptable to the Service and federally-recognized local tribes (including, but not limited to, the United Auburn Indian Community of the Auburn Rancheria and the Wilton Rancheria). Each of the SSHCP land-use-authority Permittees shall adopt a governmental resolution, ordinance, or other measure that enforces their implementation of the final SSHCP CRMP. The Permittees and their designated agents shall adhere to all requirements of the final SSHCP Cultural Resources Management Program.



L.1. Prior to the completion of a final SSHCP CRMP, each SSHCP Permittee or their designated agents wishing to implement a ground-disturbing Covered Activity must provide notification to federally-recognized local tribes, as described in the tasks listed below, and ensure the Covered Activity project complies with section 106 of the National Historic Preservation Act.

- a. The SSHCP Permittee or their designated agents shall retain a professional archaeologist meeting the Secretary of Interior's Professional Qualifications Standards for Archaeology to complete the tasks listed below, to ensure the Covered Activity project is reviewed by federally-recognized Tribes, and to ensure the Covered Activity project complies with section 106 of the National Historic Preservation Act:
- b. The professional archaeologist shall conduct a records search with an Information Center(IC) of the California Historical Resources Information System (CHRIS) to identify previous cultural resources surveys and documented cultural resources in the project area.
- c. The professional archaeologist shall conduct a sacred-lands search with the Native American Heritage Commission (NAHC).
- d. The professional archaeologist shall provide written notification of the proposed Covered Activity project to the contacts for federally-recognized Tribes obtained from the NAHC. The professional archaeologist shall respond to requests for project information from federally-recognized Tribes. The professional archaeologist shall maintain records of all correspondence with federally-recognized Tribes. At any time, a federally-recognized Tribe can coordinate directly with the Service.
- e. The professional archaeologist shall conduct a field survey for cultural resources commensurate with the level of the undertaking's potential to affect to cultural resources or Indian Trust Resources (e.g., monitoring, pedestrian surveys, shovel testing, and geoarchaeological studies).
- f. The professional archaeologist shall record all newly identified cultural resources.
- g. The professional archaeologist shall determine eligibility of newly identified historic properties for listing on the National Register of Historic Places.
- h. The professional archaeologist shall prepare a Cultural Resource Assessment Report that includes:
 - Information on any known cultural resources already recorded on or near the project site;
 - copies of any cultural resource records and study reports that may have been provided by the Information Center as part of the records search;
 - Any reports or inventories found under the Native American Graves Protection and Repatriation Act;
 - The results of the Sacred Lands File check conducted through the NAHC
 - A determination if probability is low, moderate, or high that unrecorded cultural resources are located in the project site or the area surrounding the project site;
 - Site survey information, site descriptions and site inventory forms;
 - Management recommendations;
 - Avoidance or other protection measures for cultural resources determined to be significant;
 - Determinations of eligibility of the cultural resources under the National Register of Historic Places;
 - A project location map identifying where the proposed Covered Activity actions would occur; map(s) of the area surveyed, and location maps of previously and newly identified cultural resources;
 - Appropriate figures; tables; photographs; and
 - Copies of all correspondence with the CHRIS, the NAHC, the federally-recognized Tribes, and, when applicable, the State Historic Preservation Officer.
- i. Upon completion of the tasks outlined above, the professional archaeologist retained by the Permittee or their designated agent shall submit the cultural resources assessment report and associated documents to (1) that Permittee,(2) the South Sacramento Conservation Agency, (3) the Service, and (4) the contacts for each federally-recognized Tribe that requested information in task "d" above.
- j. After the Service indicates in writing to the South Sacramento Conservation Agency that we find the final SSHCP Cultural Resources Management Program to be acceptable; and after each land-use-authority Permittees has adopted a governmental resolution, ordinance, or other measure that enforces their implementation of the final SSHCP Cultural Resources Management Program-the requirements of Condition L.1 will be superseded by the requirements of the final SSHCP Cultural Resources Management Program.
- k. The requirements specified in L.1 above do not apply to ministerial permits issued by the land-use-authority Permittees.



M. As described in the Final SSHCP (page 8-147, page 8-153, and Tables 8-1, 8-2, 8-3, and 8-4), within 18 months of Permit issuance, the South Sacramento Conservation Agency plans to develop success criteria/ performance standards for the 389 acres of vernal pools that will be re-established or established under the SSHCP Conservation Strategy. As an element of the larger SSHCP Preserve Management and Monitoring Program, the South Sacramento Conservation Agency shall develop **performance standards for SSHCP re-established or established vernal pools** that include occupancy by vernal pool tadpole shrimp and/or other SSHCP vernal pool Covered Species. The targeted vernal pool Covered Species in a SSHCP re-established/ established vernal pool shall be appropriate for the soils, the vernal pool type, and location of the re-established/ established vernal pool, and in general, throughout the Plan Area, should reflect the vernal pool plant and animal communities that were present in the destroyed vernal pools.

M.1. Text on pages 5-83 and 5-84 of the Final SSHCP describing the requirements of AMM RE-ESTABLISHMENT/ESTABLISHMENT-1 shall be revised in the *Erratum to the Final SSHCP (Erratum)* to add a requirement for each SSHCP vernal pool re-establishment/establishment project to achieve the SSHCP Performance Standards for Vernal Pool Re-Establishment or Establishment, which will be developed by the South Sacramento Conservation Agency within 18 months of Permit issuance

M.2. Text on pages 7-21 and 7-22 Final SSHCP describing Conservation Action VP2.1 shall be revised in the *Erratum* to clarify that each SSHCP vernal pool re-establishment/ establishment project will achieve the SSHCP Performance Standards for Vernal Pool Re-Establishment or Establishment, in addition to any performance standards that might be required under Section 404 of the Clean Water Act.

M.3. Final SSHCP discussions of the monitoring and management of re-established/established vernal pools shall be clarified in the *Erratum*, including discussions explaining that the standard 5-year monitoring period for re-established/established vernal pools (described in the USACE *South Pacific Division Final 2015 Regional Compensatory Mitigation and Monitoring Guidelines*) is not sufficient to ensure that the re-established/ established pools have developed into the desired habitat that will support vernal pool tadpole shrimp and/or other SSHCP vernal pool Covered Species in perpetuity. The *Erratum* will clarify that in addition to monitoring for vernal pool Covered Species occupancy in the 5-year period after vernal pool re-establishment/ establishment, periodic monitoring of Covered Species occupancy in re-established and established Covered Species habitat will occur throughout the Permit Term, and must continue in perpetuity.

M.4. The text of SSHCP AMM RE-ESTABLISHMENT/ESTABLISHMENT-2 shall be revised in Chapter 5.4.1 of the *Erratum* to include the SSHCP Objective-VP15 requirement that all SSHCP re-established/established vernal pools will be inoculated with soils from impacted vernal pools that are within 1 mile of the re-established/established vernal pool.

N. SSHCP Biological Objective CTS3 requires all SSHCP rural transportation Covered Activity projects within modeled habitat for California tiger salamander be designed to allow individual salamanders to move across the improved rural roadways (Final SSHCP page 7-32 and 7-94). To achieve Objective CTS3, the SSHCP developed **Conservation Action CTS3.1**, which includes minimum 3-year studies to determine if the mobility of California tiger salamanders in the Plan Area would be affected by the planned rural transportation Covered Activity projects listed in Final SSHCP Chapter 5.2.3. However, after the completion of the Final SSHCP in February 2018, Sacramento County provided additional information about the timing and locations of certain rural transportation projects. After reviewing the additional information, the Permittees and the Service determined that the description of the California tiger salamander mobility/movement studies presented in **Conservation Action CTS3.1** should be revised and clarified. Therefore, the South Sacramento Conservation Agency shall convene meetings with representatives of the Service, CDFW, and the species experts that participate in the SSCA Technical Advisory Committee (TAC), to: (1) clarify and revise the description and the locations of the studies required by Conservation Action CTS-3.1, and (2) clarify the avoidance and minimization measures (AMMs) for Covered Activities in California tiger salamander modeled habitat (the CTS AMMs)

N.1.1 The South Sacramento Conservation Agency, in cooperation with the CDFW, TAC and Service, shall revise Conservation Action CTS3.1 to assure that adequate California tiger salamander mobility/movement studies will be conducted in the species modeled habitat where rural transportation Covered Activity projects will widen and improve existing 2-lane rural collector roadways to become 4-lane arterial roadways with a raised center median or a center turn lane (e.g. sections of Alta Mesa Road in PPU-5 and PPU-7; Dillard Road in PPU-5 and PPU-6, Valensin Road in PPU-



6 and PPU-7, and Green Road in PPU-5). The revision to Conservation Action CTS3.1 shall clarify (1) purposes of the mobility/movement studies; (2) the appropriate number of and appropriate locations for the studies; (3) when each study will be initiated and number of years for each study; (4) study methods; and (5) how the results of the studies will be used to "identify the most appropriate road design requirements to maintain and facilitate salamander movement across the roadway area." The rural roadway design requirements may include wildlife-undercrossing structures for salamanders (Final SSHCP pages 5-78, 5-79, 7-217, and 7-219).

N.1.2. In addition to requiring pre-project mobility studies, Conservation Action CTS-3.1 also requires monitoring after road projects are completed to (1) assess how California tiger salamander movement across and along the improved roadway has changed in response to the project, and (2) assess if additional project design considerations should be used in subsequent rural transportation projects. Therefore, the revision to Conservation Action CTS3.1 should also clarify methods for post-construction monitoring of mobility/movement and design feature effectiveness, including timing and frequency of post-construction monitoring.

N.2. The Permittees, in collaboration with the Service, CDFW, and the SSCA TAC species experts, shall develop an additional CTS AMM that requires Permittees or Third-Party Project Proponents to incorporate appropriate road design requirements to (1) maintain and facilitate salamander movement across (over or under) improved 2-lane rural collector roadways, and to (2) avoid using design features known to trap salamanders. The intent of the AMM is to maintain landscapes (modeled habitat) that are permeable to salamanders, and to avoid creating road improvements that are obstacles to movement or function like pitfall traps.

O. The Permittees and the Service jointly reviewed the additional rural transportation project information received after the completion of the Final SSHCP, and reviewed discussions presented in the Final SSHCP regarding the **SSHCP Wildlife Crossing Structures**, culvert undercrossings, hydrologic crossings, SSHCP AMM ROAD-2, and the planned SSHCP Wildlife Crossing Maintenance Manual. The Permittees and the Service agreed that the intent of the SSHCP Conservation Strategy to (1) maintain or improve giant gartersnake aquatic movement and dispersal throughout the giant gartersnake modeled aquatic habitat outside the UDA, and (2) the intent to improve aquatic passage opportunities and connectivity between the population of giant gartersnakes present in the Stone Lakes National Wildlife Area portion of the Plan Area (PPU-6), and the disjunct population present in the Badger Creek Marsh portion of the Plan Area (PPU-6)--were not clearly stated in the Final SSHCP. Therefore, the *Erratum* will revise SSHCP discussions of wildlife movement to include discussions of giant gartersnake aquatic passage and dispersal.

O.1.1. Discussions of AMM ROAD-2 shall be revised in the *Erratum* to clarify that certain rural transportation Covered Activity projects must incorporate design features to improve opportunities for giant gartersnake passage and dispersal. Appropriate project design features shall be incorporated when the rural transportation project includes the replacement or the modification of an existing drainage feature, and/or the project crosses a stream, creek, ditch, or other drainage.

O.1.2. AMM ROAD-2 shall apply to all rural transportation Covered Activity projects implementing in giant gartersnake modeled aquatic habitat. In addition, AMM ROAD-2 shall apply to rural transportation Covered Activity projects in PPU-6 that are not within giant gartersnake modeled aquatic habitat, but are located between areas of mapped giant gartersnake modeled habitat (e.g. some Bruceville Road improvements) (Final SSHCP Figure 3-18, Figure 5-5).

O.1.3. AMM ROAD-2 shall be revised in the *Erratum* to clarify that the South Sacramento Conservation Agency and the appropriate Land Use Authority Permittee shall collaborate with the proponents of each rural transportation Covered Activity to determine the need for, the design, and appropriate locations of snake passage structures.

O.2. Acceptable giant gartersnake passage structures and design features for rural transportation Covered Activities shall be determined by the South Sacramento Conservation Agency in collaboration with the Service, CDFW, and SSCA TAC species experts, using the best available scientific and commercial information.

O.3. As described in the Final SSHCP (page 5-78), the South Sacramento Conservation Agency plans to develop a SSHCP Wildlife Crossing Maintenance Manual that will identify vegetation management, clearing of obstructions, and other techniques to maintain desired movement and hydrologic connectivity in SSHCP wildlife crossing structures. The SSHCP Wildlife Crossing Maintenance Manual shall identify techniques for the maintenance and the management of structures and aquatic habitat that provide passage opportunities for the giant garter snake.

P. The Permittees and the Service jointly reviewed the description of the **SSHCP "Special Studies"** described in Table 8-5 of



the Final SSHCP, including the description of the second Special Study listed in Table 8-5, which will verify the effectiveness of the SSHCP EDGE AMMs in avoiding indirect effects to the existing hydrology of vernal pools and the vernal pool ecosystem within the SSHCP's UDA Preserves. The *Erratum* will clarify the description of the second SSHCP Special Study listed on Table 8-5 of to indicate that the Special Study includes investigations of vernal pools hydrology in the edge areas of the planned SSHCP Preserves that will border the urban development Master Plans described in Final SSHCP Chapters 5.2.1 and 5.5.1.

P.1. The South Sacramento Conservation Agency, the Service, and the SSCA TAC shall review and approve the design and the methodologies of the second Special Study, to confirm that appropriate study sites and reference sites are selected, that appropriate pre-project data is collected, that appropriate post-project data will be collected, that meaningful comparisons of pre-project and post-project data can be made, that SSHCP Table 8-3 questions on the effectiveness of the EDGE AMMs are answered, and to assure that the results of the second Special Study can be applied to subsequent urban development Master Plan project sites that will border SSHCP Preserves in the UDA. As discussed in Table 8-5 of the Final SSHCP, the pre-project studies of existing hydrology and habitat conditions discussed in this Special Study should be conducted as soon as possible.

P.2. Discussions of the second Special Study in the *Erratum* will clarify how the SSHCP will use the results of the Special Study. If results indicate that the EDGE-3 AMMs may not be fully effective in preventing changes to the existing hydrology or the existing habitat conditions of all protected vernal pools in the SSHCP's UDA Preserves, the SSHCP shall immediately implement remedial actions to make the EDGE-3 AMMs fully effective in the subsequent urban development Master Plan projects that will border an existing UDA preserve/planned SSHCP Preserve. Remedial actions implemented or required by the South Sacramento Conservation Agency may include changes to stormwater control in the Preserve Setback, changes in allowable public access within the Preserve Setback, increasing the minimum width of the 50-foot-wide Preserve Setback currently described in AMM EDGE-3, or other remedial actions acceptable to the Service. Remedial actions taken by the South Sacramento Conservation Agency may also include adding preserved acreage of the indirectly affected land cover type and/or Covered Species modeled habitat. As described in Final SSHCP Chapter 9.3.2, the Service shall review and approve all proposed modifications to the SSHCP avoidance and minimization measures (AMMs).

P.3. In addition to the Special Study information provided in each SSHCP 5-Year Report to the Service (see Final SSHCP page 8-156), each SSHCP Annual Report shall also summarize the progress of this Special Study, and include a summary of the information collected that year.

Q. The Permittees and the Service jointly reviewed Final SSHCP discussions of habitat management in the **SSHCP Preserves that will be in the UDA**. The Permittees and the Service agreed that the intent of the SSHCP Conservation Strategy to promptly detect and respond to edge effects in all SSHCP UDA Preserves was not clearly explained in Final SSHCP Chapter 8. The *Erratum* will clarify that monitoring of SSHCP Preserves inside the UDA will be more rigorous, relative to SSHCP Preserves outside the UDA, with greater frequency, intensity, and scale of monitoring (sample sizes, number of monitoring locations, and types of monitoring), and the *Erratum* will clarify Permittee assurances to the Service that the existing habitat functions of all habitat acres protected in each SSHCP UDA Preserve will be maintained (or improved) in perpetuity.

Q.1. The *Erratum* will discuss the SSHCP's planned intensive monitoring of each edge area in the UDA Preserves, including (1) areas where a UDA Preserve borders urban development or borders a Preserve Setback; (2) areas where a UDA Preserve borders a roadway; (3) areas where a UDA Preserve is divided by a community trail or bicycle trail; (4) areas where a UDA Preserve is divided by an existing or a new roadway, and (5) areas of each UDA Preserve used for the delivery, corralling, and pickup of grazing animals.

Q.2. The *Erratum* will discuss the SSHCP's rigorous monitoring and management of the smaller SSHCP UDA Preserves (i.e. the Satellite Preserves, the Linkage Preserves, and the Minor Preserves); to achieve Permittee assurances to the Service that the existing habitat functions of all lands within each of the SSHCP UDA Preserves will be maintained in perpetuity. The *Erratum* will clarify the SSHCP intent that management of the smaller UDA Preserves will overcome difficulties of using prescribed livestock grazing or prescribed fire management in smaller preserves after they are surrounded by new housing and urban development.



Q.3. The *Erratum* will clarify discussions of a the SSHCP program for the early detection and the eradication or abatement of invasive weeds or exotic plant species, which is required by SSHCP Objective HAB4, AMM EDGE-10 and AMM ROAD-3. Discussions in the *Erratum* and the description of Conservation Action HAB4.1 in the *Erratum* will be revised to clarify that (1) the SSHCP's comprehensive weed and abatement plan for the Plan Area includes weed eradication outside the boundaries of the SSHCP Preserves, and (2) will clarify that the regular assessment, mapping, and eradication of weeds within the UDA will emphasize the prompt detection and eradication of weeds within the Mather Core Recovery Area portion of the UDA.

R. The Permittees and the Service jointly reviewed text of Objective HAB2 and the Chapter 8 discussions of the SSHCP Preserve Monitoring and Management Program in the Final SSHCP. The Permittees and the Service agreed that the habitat **management needs of the individual plant Covered Species** are not explained. Therefore, the *Erratum* will clarify that individual SSHCP Preserve Management Plans shall include site-specific grassland management and livestock grazing prescriptions that (1) will address any site-specific threats to the vernal pool plant Covered Species present in the Preserve; and (2) will avoid or minimize the potential for grazing animals to adversely affect the growth and reproduction of each vernal pool plant Covered Species.

S. The Permittees and the Service jointly reviewed the SSHCP AMMs in Chapter 5.4 of the Final SSHCP and reviewed SSHCP conservation of the valley elderberry longhorn beetle presented in Chapter 7 of the Final SSHCP. The Permittees and the Service agreed that Covered Activity requirements to minimize or avoid effects to valley elderberry longhorn beetle discussed in the SSHCP Objectives (Chapter 7) were not included in the Covered Activity AMMs (Chapter 5.4). Therefore, the *Erratum* shall include AMMs for the valley elderberry longhorn beetle in SSHCP Chapter 5.4, and clarify the SSHCP Conservation Strategy for valley elderberry longhorn beetle presented in SSHCP Chapter 7.

S.1. The SSHCP's valley elderberry longhorn beetle AMMs shall be consistent with the avoidance and minimization measures and the species survey protocols outlined in the "Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle" (USFWS 2017), or shall be consistent with the Service's species survey protocols and species AMMs that are in place when the Covered Activity is implemented.

S.2. The Permittees, in cooperation with the Service and the SSCA TAC, shall clarify SSHCP Biological Objective VELB1 and SSHCP Conservation Action VELB1.1. The revisions to Conservation Action VELB1.1 shall clarify how individual Covered Activity projects will (1) appropriately relocate, replace, or mitigate for the individual elderberry shrubs that are located within the project footprint, and how Covered Activity projects will (2) fully avoid indirect impacts to individual elderberry shrubs that are located outside of the project footprint (including Riparian land covers and individual elderberry shrubs located within 20 feet or located within 100 feet of the project footprint or construction activities).

T. The Permittees and the Service jointly reviewed the SSHCP **AMMs for the western pond turtle** in Chapter 5.4.2 of the Final SSHCP, and agreed that the intent of the SSHCP Conservation Strategy to avoid or minimize Covered Activity effects to both upland and aquatic modeled habitat for the western pond turtle was not clearly described, and will be clarified in the *Erratum* (i.e. AMM WPT-1 through AMM WPT-9).

T.1. Text of the western pond turtle AMMs shall be revised to clarify that the WPT AMMs are referring to both the upland and the aquatic modeled habitats of the western pond turtle. The AMMs will clarify that all upland habitat within 300 feet of a Covered Activity also will be delineated, and that the experienced on-site biologist will search and monitor upland habitat for active nests, hatchlings, juveniles, and adults. The revisions will clarify that active upland nests may contain eggs for 96 to 104 days [from May through August], and may contain hatchlings that remain in the nest for many months, typically until the following March or April. The revisions will clarify that adults and juveniles also move to upland habitat when their aquatic habitat dries in late summer, and clarify that adult and juvenile western pond turtles commonly overwinter in uplands [from November to March]).

T.2. Revised text of the western pond turtle AMMs will clarify that AMMs for western pond turtle shall be implemented by all SSCHP Covered Activities within modeled habitat (not just construction and ground-disturbing Covered Activities), including the Covered Activities in Stream Setbacks (Final SSHCP Chapter 5.2.6); the Covered Activities in the Laguna Creek Wildlife Corridor (Final SSHCP Chapter 5.2.8); and all Flood Control and Stormwater Management Covered Activities (Final SSHCP Chapter 5.2.1), including management of terrestrial vegetation and other reoccurring operations and maintenance actions along UDA waterways.

T.3. The South Sacramento Conservation Agency will meet with the Service, CDFW, and the SSCA TAC species



experts to review the Covered Activity work-window described in AMM WPT-2 after (1) considering the different types and the seasonal schedules of the SSHCP Covered Activities implemented within upland and aquatic modeled habitat, and (2) after considering the biphasic lifecycle of western pond turtle that includes upland and aquatic habitats. The work-window described in AMM WPT-2 shall be revised to specify the appropriate work windows for each type of SSHCP Covered Activity that will be conducted in western pond turtle modeled habitat.

U. The Permittees and the Service jointly reviewed the **Conservation Strategy for tricolored blackbird** presented in Chapter 7 of the Final SSHCP, and agreed that the intent of SSHCP Conservation Action TB5.1 (presented in Table 7-1 of the Final SSHCP) was not clear. Therefore, the text of Conservation Action TB5.1 shall be revised in the *Erratum* to state:

VB5.1. Protect at least one extant unprotected occurrence of a nesting colony prior to take of one nesting colony of tricolored blackbird. Each of the nesting colony extant occurrences preserved will meet the following criteria:

- Has supported a minimum of 200 tricolored blackbirds during one or both of the CDFW survey years preceding the project application, and the number of tricolored blackbirds supported in the preserved nesting colony is not substantially smaller than the number of tricolored blackbirds typically observed in the nesting colony that will be lost.
- Has a protected nesting substrate (including wetlands that are flooded March to July, or has thorny, spiny vegetation, or "visually" but not actually spiny vegetation).
- Has an open, accessible, and persistent water source is located within 1,640 feet of the nesting substrate.
- Is located within 1 mile of at least 500 acres of a known foraging site or SSHCP land cover type that provides modeled nesting and foraging habitat (Valley Grassland, some Cropland, Freshwater Marsh, Seasonal Wetland (see SSHCP Chapter 3.4.5)), and the 500 acre foraging site is protected, or will be protected, in the SSHCP Preserve System, in an existing preserve, in a conservation easement, or is otherwise permanently protected. This requirement targets protected lands with adequate insect forage. Intensive row crops, vineyards, and orchards generally do not provide modeled foraging habitat.

V. The Permittees and the Service jointly reviewed the SSHCP AMMs for western red bat (presented in Chapter 5.4 of the Final SSHCP), and agreed that the BAT AMMs did not adequately address potential Covered Activity effects to western red bat reproduction. Therefore, the BAT AMMs shall be revised in the *Erratum* to state:

BAT-1 (Maternity Roost Surveys): If modeled habitat (Figure 3-30) for western red bat is present within 300 feet of a Covered Activity's project footprint, and a Covered Activity is proposed between May 1 and August 31 (when pre-flight/nursing young may be present), then an approved biologist will conduct a field investigation of the project footprint and adjacent areas within 300 feet of the project footprint to determine if a potential maternity roost is present, and to identify and map potential maternity roost sites. Adjacent parcels under different land ownership will be surveyed if access is granted or if the parcels are visible from authorized areas. If potential maternity roost sites are found, the Third-Party Project Proponent will note their locations on project designs and will design the project to avoid all areas within a 300-foot buffer around the potential maternity roost sites. As discussed in AMM BAT-3, Maternity roost habitat is fully avoided if project-related activities do not impinge on a 300-foot buffer established by the approved biologist around an existing or potential maternity roost site. See SSHCP Chapter 10 for the process for Covered Activity projects to conduct and submit project survey information.

BAT-2 (Maternity Roost Pre-Construction Surveys): If the Third-Party Project Proponent elects not to avoid potential maternity roost sites within the project footprint plus a 300-foot buffer during May through August, additional western red bat surveys are required. Prior to any ground disturbance related to Covered Activities or staging of equipment in the project footprint, an approved biologist will conduct a pre-construction survey within 3 days of project activities (within the project footprint and 300 feet of the project footprint) to determine the presence of maternity roost sites. Pre-construction surveys will be conducted during the roosting season when pre-flight/nursing young may be present (May 1 through August 31). If a maternity roost is present, then AMM BAT-3 shall be implemented. The approved biologist will inform the Land Use Authority Permittee and the SSHCP Implementing Entity (the South Sacramento Conservation Agency) of all roost sites and species locations, and they in turn will notify the Wildlife Agencies (Service and CDFW), and provide all survey information to the Wildlife Agencies.

BAT-3 (Maternity Roost Buffer): If active maternity roost sites are found within the project footprint or within 300



feet of the project footprint between May 1 and August 31, the Third-Party Project Proponent will establish a 300-foot temporary disturbance buffer around the active maternity roost site until bats have vacated the roost and the Wildlife Agencies concur that the roost is vacant.

Very few western red bats are expected to be present in the Action Area in the winter months (November 1 through March 31). However, if active winter hibernaculum sites are found within the project footprint or within 300 feet of the project footprint between November 1 and March 31, the Third-Party Project Proponent will establish the same 300-foot temporary disturbance buffer around the active winter hibernaculum site until bats have vacated the hibernaculum and the Wildlife Agencies concur that the hibernaculum is vacant.

BAT-4 (Bat Eviction Methods for Non-Maternity and Non-Hibernaculum Roosts): An approved biologist will determine if non-maternity and non-hibernaculum day or night western red bat roosts are present on the project site. If direct project impacts to a non-maternity and non-hibernaculum day or night roost cannot be avoided, the Third-Party Project Proponent will prepare a bat eviction plan, and inform the Land Use Authority Permittee and the SSHCP Implementing Entity (the South Sacramento Conservation Agency), They in turn will shall inform will inform the Wildlife Agencies, and provide the bat eviction plan for review. If necessary, the approved biologist may be allowed to remove the bats using safe-eviction methods acceptable to the Wildlife Agencies.

ATTACHMENT A

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- b. County of Sacramento
c/o Leighann Moffitt, Planning Director
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- c. Sacramento County Water Agency
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- e. City of Rancho Cordova
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- f. City of Galt
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- g. Capital Southeast Connector Joint Powers Authority
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