



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
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Sacramento, California 95825-1846

In Reply Refer To:
81420-2009-F-0857-R001-2

APR 29 2013

Ms. Melanie Brent
California Department of Transportation
Environmental Division, MS-8E
111 Grand Avenue
Oakland, California 94612

Subject: Reinitiation of Formal Consultation for the Proposed Interstate 80/Interstate 680/State Route 12 Interchange Phase 1 Project's Peltier Creek Restoration Project, Solano County, California (Caltrans EA 0A5300)

Dear Ms. Brent:

This is in response to the California Department of Transportation's (Caltrans) March 26, 2013, request to reinitiate formal consultation with the U.S. Fish and Wildlife Service (Service) on the proposed Interstate 80/Interstate 680/State Route 12 Interchange Phase 1 Project (Interchange Project). The request to reinitiate consultation was received in our office on March 28, 2013, and included a March 2013 Biological Assessment (BA). The original Biological Opinion (BO) for the Interchange Project (Service File #81420-2009-F-0857-7) was issued on April 16, 2012. The purpose of the request is to amend the original consultation to include actions to satisfy the U.S. Army Corps of Engineers and the Regional Water Quality Control Board mitigation associated with the Interchange Project. The proposed mitigation project also includes Service-approved compensation for the threatened valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) (VELB). The mitigation/compensation actions will occur off-site on the Water Hole Land Company, LLC's Suisun Creek Preserve in Solano County. The Service considered Caltrans' request for reinitiation complete on April 19, 2013.

The proposed Peltier Creek Restoration Project is interrelated to the Interchange Project but is well removed geographically from the parent project and is significantly different in its scope and purpose. Therefore, this reinitiation is being presented as a stand-alone document specific to the mitigation project rather than follow our typical format for reinitiation letters.

For the Peltier Creek Restoration Project, Caltrans has requested formal consultation on the threatened California red-legged frog (*Rana draytonii*). This document represents the Service's biological opinion on the effects of the proposed mitigation project on the California red-legged frog. Critical habitat has been designated for this species; however, the action area is not located

within designated critical habitat for the California red-legged frog. This document has been prepared in accordance with section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 *et seq.*) (Act).

The Service concurs with Caltrans' determination that the proposed Peltier Creek Restoration Project may affect, but is not likely to adversely affect the endangered salt marsh harvest mouse (*Reithrodontomys raviventris*). The proposed project is located on historic tidal marsh habitat that has long since been drained and isolated from tidal influence by a series of managed levees. Occurrence of the salt marsh harvest mouse likely would be limited to infrequent mouse dispersal between areas of adjacent pickleweed habitat. The *Conservation Measures* section of the *Description of the Proposed Action* include appropriate measures proposed by Caltrans to address the potential occurrence of the salt marsh harvest mouse during project construction.

Consultation History

- December 26, 2012 The Service visited the Suisun Creek Preserve.
- March 22, 2013 Caltrans provided the Service with the revised March 2013 Suisun Creek Preserve Mitigation & Monitoring Plan (MMP)(Caltrans 2013).
- March 28, 2013 The Service received Caltrans March 26, 2013, request to reinitiate formal consultation on the Interchange Project to cover the effects associated with the proposed Peltier Creek Restoration Project. The request included a March 2013 BA addressing the effects associated with the proposed restoration project.
- April 10, 2013 The Service met with Caltrans and Solano Transportation Authority to discuss the restoration project and information needed to complete the reinitiation.
- April 11, 2013 The Service issued a 30-day letter (Service File #81420-2009-F-0857-R001-1), with comments in response to Caltrans' March 2013 BA and a request for additional information to complete the reinitiation.
- April 19, 2013 The Service received Caltrans' response to the April 11, 2013, 30-day letter. According to the response, biologists found VELB exit holes within 8 of 26 elderberry shrubs found along Suisun Creek, adjacent to the northwest corner of the Suisun Creek Preserve. The response also included additional and revised project description information. The provided information fulfilled the Service's information needs to complete the reinitiation.

BIOLOGICAL OPINION

Description of the Proposed Action

The following project description was provided by Caltrans in the March 2013 BA and the April 19, 2013, response, with minor modifications for reasons of clarity and accuracy provided by the Service.

General Scope of Work

1. Caltrans proposes to meet their wetland mitigation and VELB compensation commitments for the Interchange Project by completing the following within the 43-acre Suisun Creek Preserve: Establishment (creation) of a minimum of 2,682 linear feet of channel habitat.
2. Restoration of a minimum of 3.33 acres of riparian habitat.
3. Establishment (creation) of habitat for the VELB.
4. Establishment (creation) of a minimum of 9.50 acres of wetland habitat.

Construction Schedule

Associated construction activities, weed control, and native vegetation plantings are scheduled to occur in 2013 or 2014 depending upon receipt of agency approvals and permits. Work in drainages and wetlands would be restricted to the dry season (June 15-October 15). Success criteria monitoring and management of the Suisun Creek Preserve will continue in perpetuity.

Equipment

Construction is expected to require heavy equipment such as excavators, bobcats, bulldozers, hydraulic excavators or backhoes, scrapers, rubber-tired dump trucks, front-end loaders, load-haul-dumps, and sheepsfoot or drum rollers.

Access and Staging

Construction equipment would access the site from Chadbourne Road.

Caltrans has identified two staging areas for the project. A 0.6-acre material staging area will be located in an upland area along the north-central edge of the Suisun Creek Preserve. A 1.0-acre equipment staging area will be located in an upland area on the east-central edge of the Suisun Creek Preserve. The construction contractor may choose to use one or both of these areas. Staging sites will be used on a temporary basis during construction to store equipment, a port-a-potty, and for vehicle parking. Upon project completion, the staging area will be restored to pre-project or improved habitat conditions.

Project Activities and Methods

The five project components are discussed in greater detail as follows:

1. Peltier Channel Habitat Creation

From the northwest corner of the Suisun Creek Preserve, 2,682 linear feet (0.06 acres) of channel habitat will be constructed along a historic section of Peltier Creek, flowing generally east and exiting the northeast corner of the Suisun Creek Preserve.

The channel will be designed to retain and release captured overland flow. Hydrology to the created channel will also be provided by precipitation, groundwater seepage, and runoff irrigation water.

The project requires a connection to an offsite water source(s) to provide secure water for the channel habitat in perpetuity. The water source will be an existing drainage located north of the Suisun Creek Preserve. An approximately 0.15-mile drainage will be constructed to connect the water source to the northwest end of the 2,682 foot section of Peltier Creek. The water source point and the constructed connection will be located on private land, north of the Suisun Creek Preserve.

If water is present within the source drainage, temporary cofferdams (made of gravel, fabric, and pipe) would be constructed both up and downstream of the connection. If needed, a pipe water diversion system would be installed for dewatering. The cofferdams would be located approximately 10 to 20 feet from the limit of the connection.

To the extent practicable, disturbed portions of the drainage would be restored to pre-project conditions upon completion of construction. This may include grading and/or contouring the site, and seeding or planting as appropriate.

2. Riparian Habitat Restoration

A minimum of 3.33 acres of riparian habitat will be established primarily along the 2,682 foot section of Peltier Creek. Additional riparian habitat will occur in the southeast corner of the Suisun Creek Preserve.

3. Elderberry Plantings

As stated in the April 2012 BO, Caltrans proposed compensating for the Interchange Project's effects to VELB with the successful establishment of 157 elderberry seedlings as well as an additional 177 native plantings along the 2,682 foot section of Peltier Creek.

As part of their restoration of Peltier Creek riparian habitat, Caltrans proposes to plant 190 elderberry seedlings and 596 other native riparian plants. Other than blue elderberry, the planting pallet includes arroyo willow, red willow, black walnut, box-elder, California blackberry, California wild rose, coyote brush, creeping rye grass, gumplant, live oak, valley oak, and mugwort. The plantings will occur as part of the riparian habitat restoration.

The planting scheme, methodology, success monitoring, success criteria, and means of habitat protection will be described in the Suisun Creek Preserve MMP and will follow the *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (Service 1999).

4. Wetland Habitat Creation

A minimum of 9.50 acres of wetlands will be constructed within and adjacent to the 2,682 foot section of Peltier Creek. It will include 3.91 acres of seasonal drainage/seasonal wetland habitat within the restored Peltier Creek channel and 5.59 acres of seasonal wetlands in low elevation areas adjacent to the channel.

The proposed project will result in the combined creation of 9.83 acres of native habitat. An approximate 30-foot construction buffer will be needed around the habitat creation areas, which will result in approximately 3.7 acres of temporary disturbance. The temporary work area will also include a 1.0-acre equipment staging area and a 0.6-acre material staging area. The 792 foot-long water line connection will be completed within a 30-foot wide, 0.55-acre temporary construction corridor. The entire construction footprint will be 15.68 acres.

According to the March 2013 MMP, temporary work areas will be restored to original grade and replanted or reseeded with the appropriate plant species or monitored following construction to determine that vegetation comparable to the pre-existing conditions has naturally regenerated.

As described in the March 2013 MMP, in-perpetuity land use and protection of the 43-acre Suisun Creek Preserve will be accomplished by recording a conservation easement with Solano County, and managing the habitat in compliance with an agency approved resource management plan, and funding a nonwasting endowment to fund these activities.

Construction Methods

Construction of the staging areas will require a scraper and dozer to remove vegetation and clear areas for the placement of equipment and vehicles during construction.

The habitat creation areas will be cleared of vegetation with a scraper and a bulldozer. Bulldozers/excavators will be used to excavate the low-flow creek channel and seasonal wetlands. The low-flow channel is estimated to be approximately 1 foot deep by 2-5 feet wide. A slightly higher floodplain terrace will be constructed adjacent to sections of the low-flow channel. This terrace area will be routinely flooded during storm events and is anticipated to remain saturated for most of the year. Seasonal wetlands constructed adjacent to the floodplain terrace will be constructed to allow inflow from the creek to flush the seasonal wetlands with freshwater flows.

Construction of the water connection to the northern drainage ditch will require the use of a scraper, bulldozer, and excavator. Construction of this linear feature will be contained within a 40-foot wide temporary construction corridor. A scraper will remove vegetation at the beginning of construction, and a bulldozer and excavator will excavate the channel. Excavated material will be placed on both sides of the channel to construct a small berm/levee. The channel is

estimated to be approximately 20 feet wide and 2 feet deep, allowing conveyance of water from the northern ditch.

The riparian habitat, including elderberry plantings, will be positioned on elevated spoils areas. An irrigation system will be designed to irrigate the riparian area during the establishment period.

Proposed Conservation Measures

Caltrans proposes to avoid, minimize, and compensate for effects to the salt marsh harvest mouse and California red-legged frog by implementing the following measures:

1. At least 15 days prior to the onset of any construction-related activities, Caltrans will submit to the Service, for approval, the name(s) and credentials of biologists it wishes to conduct activities specified for this project. Information included in a request for authorization will include, at a minimum: (1) relevant education; (2) relevant training on species identification, survey techniques, handling individuals of different age classes, and handling of different life stages by a permitted biologist or recognized species expert authorized for such activities by the Service; (3) a summary of field experience conducting requested activities (to include project/research information); (4) a summary of BOs under which they were authorized to work with the listed species and at what level (such as construction monitoring versus handling), this will also include the names and qualifications of persons under which the work was supervised as well as the amount of work experience on the actual project; (5) A list of Federal Recovery Permits [10(a)1(A)] held or under which are authorized to work with the species (to include permit #, authorized activities, and name of permit holder); and (6) any relevant professional references with contact information. No project construction will begin until Caltrans has received written Service approval for biologists to conduct specified activities.
2. All construction personnel will attend a mandatory Worker Environmental Awareness Training Program delivered by a Service-approved biologist prior to working on the project site. The program will focus on the conservation measures that are relevant to employee's personal responsibility and will include an explanation as how to best avoid take of the salt marsh harvest mouse and California red-legged frog. The program will include an explanation of Federal laws protecting these listed species as well as the importance of compliance with this BO. Documentation of the training, including sign-in sheets, will be kept on file and will be available on request.
3. Project employees will be provided with written guidance governing vehicle use, speed limits on unpaved roads, fire prevention, and other hazards.
4. A Service-approved biologist(s) will be on-site during any ground-disturbing activities including vegetation trimming or removal.

5. Through the construction supervisor or their designee, the Service-approved biological monitor(s) will be given the authority to communicate either verbally, by telephone, e-mail message, or hardcopy with Caltrans personnel, construction personnel or any other person(s) at the project site or otherwise associated with the project to ensure that the *Terms and Conditions* of this BO are being met. If situations arise where the *Terms and Conditions* may not be met or are not being met, the biological monitor will inform the construction supervisor, who has the authority to stop work. If the construction supervisor exercises this authority, the Service will be notified by telephone and e-mail message within one working day. The Service contact is the Coast-Bay/Forest Foothill Division Chief in the Sacramento Fish and Wildlife Office at (916) 414-6600. Discussions with the construction supervisor, biological monitor, Caltrans staff and Service staff, will take place to identify and inform actions to resolve the issue and to document decisions.
6. Prior to construction, the construction footprint boundaries will be clearly marked.
7. Construction access, staging, storage, and parking areas will be limited to what was described in information provided by Caltrans on March 19, 2013.
8. No more than twenty-four (24) hours prior to the date of initial ground disturbance, a pre-construction survey for the salt marsh harvest mouse and California red-legged frog will be conducted by a Service-approved biologist. These surveys will consist of walking surveys of the project limits and accessible adjacent areas within at least 50 feet of the project limits. The Service-approved biologist will investigate all potential areas that could be used by the species for feeding, breeding, sheltering, movement, and other essential behaviors. This includes thorough investigation of mammal burrows, appropriately sized soil cracks, and debris. Native vertebrates found in the cover sites will be documented. Those located within areas that will be subject to ground disturbance will be relocated to an adequate cover site within the Suisun Creek Preserve. The entrances and other refuge features within areas that will be subject to ground disturbance will be collapsed or removed following investigation and clearance.
9. If a salt marsh harvest mouse is encountered, the Service-approved biologist, through the construction supervisor, will halt all work and contact the Service to determine how to proceed.
10. Vegetation clearing will be done using hand tools in and within 50 feet of pickleweed vegetation.
11. To reduce the spread of invasive, nonnative plant species and minimize the potential decrease of palatable vegetation for wildlife species, Caltrans will comply with Executive Order 13112. This order is intended to prevent the introduction of invasive species and provide for their control to minimize adverse economic, ecological, and human health effects. In the event that noxious weeds are disturbed or removed during construction-

related activities, the contractor will be required to contain the plant material associated with these noxious weeds and dispose of them in a manner that will not promote the spread of the species. The contractor will be responsible for obtaining all permits, licenses, and environmental clearances for properly disposing of materials. Areas subject to noxious weed removal or disturbance will be replanted with fast-growing native grasses or a native erosion control seed mixture. If seeding is not possible, the area of disturbance will be covered to the extent practicable with heavy black plastic solarization material until the end of project construction.

12. All food and food-related trash items will be enclosed in sealed trash containers and removed completely from the site at the end of each day.
13. No firearms will be allowed in the action area except for those carried by authorized security personnel, or local, State, or Federal law enforcement officials.
14. No nighttime construction work will be conducted.
15. Plastic monofilament netting (erosion control matting) or similar material will not be used in the action area because California red-legged frogs can become entangled and trapped in it. Instead, Caltrans will use alternative materials such as coconut coir matting or taciified hydroseeding compounds.
16. No pets will be permitted in the action area.
17. All equipment will be maintained such that there will be no leaks of automotive fluids such as gasoline, oils, or solvents, and a Spill Response Plan will be prepared.
18. If requested through the construction supervisor before, during, or upon completion of groundbreaking and construction activities, Caltrans will ensure that the Service and/or its designated agents can, immediately and without delay, access and inspect the project site for compliance with the proposed project description, conservation measures, and terms and conditions of the biological opinion, and to evaluate project effects on listed species and their habitat.
19. The construction supervisor will halt work immediately within a buffer area of 50 feet of any discovered California red-legged frog. The construction supervisor will also contact the Service-approved project biologist and the Service in the event that a California red-legged frog is found within the construction zone. The construction supervisor will suspend all construction activities in the immediate construction zone (50-foot radius) until the animal leaves the site voluntarily or is removed by the biologist to a release site using Service-approved transportation techniques.

20. California red-legged frogs that need to be relocated outside the construction area will be released at an appropriate cover site or aquatic habitat within the Suisun Creek Preserve by the Service-approved biologist.
21. To prevent inadvertent entrapment of a salt marsh harvest mouse or California red-legged frog during construction, all excavated, steep-walled holes or trenches more than 1 foot deep will be covered at the close of each working day with plywood or similar material, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals. If at any time a trapped listed animal is discovered, the onsite biologist will immediately place escape ramps or other appropriate structures to allow the animal to escape, or the Service will be contacted by telephone for guidance. The Service will be notified of the incident by telephone and email within one (1) working day.
22. All construction equipment or construction debris left overnight within the action area will be inspected for salt marsh harvest mice and California red-legged frogs by the Service-approved biologist prior to the beginning of each day's activities and prior to being moved.
23. Injured salt marsh harvest mice or California red-legged frogs will be cared for by a licensed veterinarian or other qualified person such as the onsite biologist; dead individuals of any listed species will be preserved according to standard museum techniques and held in a secure location. The Service will be notified within one (1) working day of the discovery of death or injury to a listed species that results from project related activities or is observed at the project site. Notification will include the date, time, and location of the incident or of the finding of a dead or injured animal clearly indicated on a U.S. Geological Survey 7.5-minute quadrangle and other maps at a finer scale, as requested by the Service, and any other pertinent information. Dead animals will be placed in a sealed plastic bag with a piece of paper containing information on where and when the animal was found along with the name of the person who found it, the bag will be placed in a freezer located in a secure location until instructions are received from the Service regarding the disposition of the specimen or the Service takes custody of the specimen. The Service contacts are the Coast-Bay/Forest Foothill Division Chief in the Sacramento Fish and Wildlife Office at (916) 414-6600 and the Resident Agent-in-Charge of Service's Law Enforcement Division at (916) 569-8444.

Analytical Framework for the Jeopardy Determination

Refer to the original April 16, 2012, BO for the Interchange Project for information regarding the analytical framework for making a jeopardy determination for the effects of the proposed project on the California red-legged frog.

Action Area

The action area is defined in 50 Code of Federal Regulations (CFR) § 402.02, as “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.” For the proposed Peltier Creek Restoration Project, the action area includes the direct effects associated with the creation of channel, wetland, and riparian habitat. The proposed project includes a 31.76-acre construction footprint. The action area includes the 43-acre Suisun Creek Preserve and the 0.55-acre work area needed to complete offsite water diversion.

Status of the Species

Refer to the original April 16, 2012, BO for information regarding the status of the California red-legged frog.

Environmental Baseline

The Suisun Creek Preserve is located on land that was historically within the tidally influenced, Suisun Marsh. The land has long since been drained, leveled, and excluded from tidal action with a series of levees. Degraded remnant pockets of pickleweed vegetation remain but the property is no longer subject to tidal influence. The site has long been in agricultural use and was recently part of an upland game bird hunting preserve. It is now characterized as neglected graze land that is primarily overcome with tall non-native weedy vegetation. The site includes patches of wetland habitat interconnected through constructed ditches. The current site hydrology drains into the existing Peltier Creek alignment, at the end of which it is pumped into Chadbourne Slough.

Former modification of the area included rerouting of Suisun Creek and Peltier Creek. Suisun Creek now runs along the western edge of the Suisun Creek Preserve. Peltier Creek historically flowed through the Suisun Creek Preserve from the northeastern corner of the property. The Peltier Creek channel was dammed and partially filled. It is now a dry channel, lacking an associated riparian corridor.

The property is susceptible to flooding and projected sea level rise. The area is targeted for tidal wetland restoration in the Service’s Draft Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California (Service 2009). Therefore, successful creation of freshwater channel, wetland, and riparian habitat will continue to rely on the maintenance of the existing levee system.

The Suisun Creek Preserve is approximately 2.5 miles east of the SOL-1 California Red-Legged Frog Critical Habitat Unit, 2.4 miles east of the Jameson Canyon-Lower Napa River California Red-Legged Frog Core Recovery Unit, and within the North Coast and North San Francisco Bay Recovery Unit for the California red-legged frog (Service 2002).

The Suisun Creek and Peltier Creek are located within the Suisun Creek Preserve and are associated with the proposed restoration project. The two creeks provide potential aquatic habitat for the California red-legged frog. It is uncertain if the creeks provide potential breeding habitat and no fresh water breeding ponds are found on or adjacent to the Suisun Creek Preserve. According to the March 2013 MMP, a red-eared slider was observed within the Preserve segment of Peltier Creek. Presence of this turtle species is an indicator that Peltier Creek has sufficient hydrology and deep water retreat to support non-breeding life history needs of the California red-legged frog.

Suisun Creek and Peltier Creek include narrow but functional riparian corridors where the California red-legged frog would be expected to take refuge and forage. These corridors may also be important habitat for seasonal movements and frog dispersal.

Red-legged frogs are also likely to use the surrounding upland habitat for seasonal movement, dispersal, and foraging. Mammal burrows, debris, and other cover within the upland area provide frog refugia.

The California red-legged frog is reasonably certain to occur within the action area due to: (1) the project being located within the species' range and current distribution; (2) suitable aquatic and upland habitat for movement, foraging and cover are located within the action area; (3) the action area is adjacent to large contiguous system of undeveloped land managed in a way that does not dissuade red-legged frog occupancy; and (5) the biology and ecology of the animal.

Effects of the Proposed Action

Site access will be limited to established roads and staging will take place in a previously disturbed area, limiting the potential to adversely affect the California red-legged frog. Creation of channel, wetland, and riparian habitat will occur in areas that have been heavily modified due to past landscape modification and agricultural practices.

Caltrans proposes to minimize the potential for take associated with habitat construction by implementing the *Proposed Conservation Measures*. Effective implementation of *Conservation Measures* will likely minimize effects to the California red-legged frog during construction but incidental take is still likely to occur. Therefore, the proposed Peltier Creek Restoration Project has the potential to result in a variety of adverse effects to the California red-legged frog.

Injury, exposure, disorientation, and disruption of normal behaviors will likely result from planned earth moving activities. Construction noise, vibration, and increased human activity may interfere with normal behaviors such as feeding, sheltering, movement between refugia and foraging grounds, and other frog essential behaviors. This can result in avoidance of areas that have suitable habitat but intolerable levels of disturbance.

Red-legged frogs are cryptic and their cover sites can be difficult to identify and fully investigate. Unless identified by the biological monitor or site personnel, and rescued by the

biological monitor, individual California red-legged frogs exposed during earthwork likely will be crushed and killed or injured by construction-related activities. Even with biological monitoring, overall awareness, and proper escape ramps, California red-legged frogs could fall into excavations and then risk being directly killed or be unable to escape and be killed due to desiccation, entombment, or starvation. Proper trash disposal is often difficult to enforce on a large construction site. Improperly disposed edible trash could attract predators, such as raccoons, crows, and ravens, to the sites, which could subsequently prey on California red-legged frogs. Caltrans' commitment to use erosion control devices other than mono-filament should be effective in avoiding the associated risk of entrapment that can result in death by predation, starvation, or desiccation (Stuart *et al.* 2001). Caltrans will further minimize adverse effects by locating construction staging, storage, and parking areas within existing dirt roads and previously disturbed areas, clearly marking construction work boundaries, and conducting preconstruction surveys and biological monitoring. The adverse effects resulting from construction activities will be partially minimized by educating workers, and requiring a Service-approved biologist to be present to monitor construction activities.

If unrestricted, the proposed construction activities could result in the introduction of chemical contaminants to frog habitat. Exposure pathways could include inhalation, dermal contact, direct ingestion, or secondary ingestion of contaminated soil, plants or prey species. Exposure to contaminants could cause short- or long-term morbidity, possibly resulting in reduced productivity or mortality. However, Caltrans proposes to minimize these risks by implementing standard fueling and spill prevention/cleanup best management practices.

Preconstruction surveys and the relocation of individual California red-legged frogs may avoid injury or mortality; however, capturing and handling frogs may result in stress and/or inadvertent injury during handling, containment, and transport. Caltrans proposes to minimize these effects by using Service-approved biologists, limiting the duration of handling, and relocating amphibians to suitable nearby habitat in accordance with Service guidance.

If unrestricted, biologists and construction workers traveling to the action area from other project sites may transmit diseases by introducing contaminated equipment. The chance of a disease being introduced into a new area is greater today than in the past due to the increasing occurrences of disease throughout amphibian populations in California and the United States. It is possible that chytridiomycosis, caused by chytrid fungus, may exacerbate the effects of other diseases on amphibians or increase the sensitivity of the amphibian to environmental changes (water pH) that reduce normal immune response capabilities (Bosch *et al.* 2001, Weldon *et al.* 2004). Caltrans will minimize these risks by implementing proper decontamination procedures prior to and following aquatic surveys and handling amphibians. These will minimize the risk of transferring diseases through contaminated equipment or clothing. Proper handling and relocation of frogs out of construction areas increases the likelihood of their survival.

Although frogs may be adversely affected during the construction/installation of the creek channel, wetland, and riparian vegetation, the end result of the actions are likely to benefit the California red-legged frog. Establishment of multi-canopy vegetation along the Peltier Creek

will provide additional shading, cover, and forage potential for the listed frog. Riparian vegetation typically establishes and matures more quickly than other California vegetation communities. Creating a more extensive and contiguous wooded riparian corridor along Peltier Creek is likely to increase the movement potential between red-legged frog habitat up and down stream of the Suisun Creek Preserve.

Cumulative Effects within the Action Area

Cumulative effects include the effects of future State, Tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

The Service is not aware of any cumulative effects to the California red-legged frog that are reasonably certain to occur within the Peltier Restoration Project action area.

Conclusion

After reviewing the current status, the environmental baseline for the Peltier Creek Restoration Project portion of the Interchange Project action area; the effects of the overall proposed project, and the cumulative effects of the overall project, it is the Service's biological opinion that, as proposed, the Peltier Creek Restoration Project is not likely to jeopardize the continued existence of the California red-legged frog.

INCIDENTAL TAKE STATEMENT

The original Incidental Take Statement for the Interchange Project is amended as follows with the addition of the Peltier Creek Restoration Project.

Section 9(a)(1) of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened fish and wildlife species without special exemption. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harass is defined by the Service as an intentional or negligent act or omission which creates the likelihood of injury to a listed species by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. Harm is defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by impairing behavioral patterns including breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with this Incidental Take Statement [50 CFR § 402.14(i)(3)].

The measures described below are non-discretionary, and must be implemented by Caltrans so that they become binding conditions of any grant or permit issued to Caltrans as appropriate, in order for the exemption in section 7(o)(2) to apply. Caltrans and its designees have a continuing duty to regulate the activity covered by this amended Incidental Take Statement. If Caltrans or its designees (1) fail to adhere to the terms and conditions of the Incidental Take Statement through enforceable terms that are added to the permit or grant document, and/or (2) fail to retain oversight to ensure compliance with these terms and conditions, the protective coverage of section 7(o)(2) may lapse for the overall Interchange Project. In order to monitor the effects of the incidental take, Caltrans or its designees must report the progress of the action and its effects on the species to the Service as specified in the Incidental Take Statement

Amount or Extent of Take Specific to the Peltier Creek Restoration Project

The Service anticipates that incidental take of the California red-legged frog on the Peltier Creek Restoration Project will be difficult to detect due to their wariness, cryptic nature, and use of potential cover sites within the action area. Finding an injured or dead California red-legged frog is unlikely due to their relatively small body size, rapid carcass deterioration, and likelihood that the remains will be removed by a scavenger. Losses of the California red-legged frog may also be difficult to quantify due to a lack of baseline survey data and seasonal and annual fluctuations in their numbers due to environmental or human-caused disturbances. There is a risk of harm, harassment, injury and mortality as a result of the proposed activities, and capture and relocation efforts; therefore, the Service is authorizing take incidental to the proposed action as: (1) the injury and mortality of no more than one (1) California red-legged frog; and (2) the capture, harm, and harassment of all California red-legged frogs within the Peltier Creek Restoration Project footprint. Upon implementation of the following *Reasonable and Prudent Measures*, California red-legged frogs within the Peltier Creek Restoration Project action area in proportion to the amount and type of take outlined above will become exempt from the prohibitions described under section 9 of the Act. No other forms of take are exempted.

This BO does not authorize take for Federal or non-Federal actions associated with management of the Suisun Creek Preserve.

Effect of the Take

The Service has determined that this additional level of anticipated take associated with the Interchange Project for the California red-legged frog is not likely to jeopardize the continued existence of the species.

Reasonable and Prudent Measure

The following reasonable and prudent measure is necessary and appropriate to minimize the effect of the proposed action on the California red-legged frog. Caltrans and its designees will be responsible for the implementation and compliance with this measure:

1. Caltrans and its designees shall minimize the effect of take to the California red-legged frog.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the Act, Caltrans shall ensure compliance with the following terms and conditions, which implement the reasonable and prudent measure described above. These terms and conditions are nondiscretionary.

1. The following Terms and Conditions implement Reasonable and Prudent Measure one (1):
 - a. Caltrans and its designees shall minimize the potential for harm, harassment, or killing of the California red-legged frog, resulting from project related activities by implementing the conservation measures as described in the *Description of the Proposed Action* of this document.
 - b. Caltrans and its designees shall require all contractors to comply with the Act in the performance of the action and shall perform the action as outlined in the *Description of the Proposed Action* of this document.
 - c. Caltrans and its designees shall include language in their contracts that expressly requires contractors and subcontractors to work within the boundaries of the project footprints identified in this document, including vehicle parking, staging, laydown areas, and access roads.
 - d. Each California red-legged frog encounter shall be treated on a case-by-case basis in coordination with the Service but general guidance is as follows: (1) leave the non-injured frog if it is not in danger; or (2) move the frog to a nearby location if it is in danger. These two options are further described as follows.
 - 1) When a California red-legged frog is encountered in the action area the first priority is to stop all activities in the surrounding area that have the potential to result in the harm, harassment, injury, or death of the individual. Then the monitor needs to assess the situation in order to select a course of action that will minimize adverse effects to the individual. Contact the Service once the site is secure. The contacts for this situation are Ryan Olah, Coast Bay/Forest Foothill Division Chief (ryan_olah@fws.gov) or John Cleckler, Caltrans

Liaison (john_cleckler@fws.gov). They can be reached at (916) 414-6600. If you get voicemail message for these contacts then contact John Cleckler on his cell phone at (916) 712-6784.

The first priority is to avoid contact with the frog and allow it to move out of the action area and hazardous situation on its own to a safe location. The animal shall not be picked up and moved because it is not moving fast enough or it is inconvenient for the construction schedule. This guidance only applies to situations where a California red-legged frog is encountered on the move during conditions that make their upland travel feasible. This does not apply to California red-legged frogs that are uncovered or otherwise exposed or in areas where there is not sufficient adjacent habitat to provide escape cover and safe access to breeding, feeding, and sheltering habitat should they move outside the construction footprint.

Avoidance is the preferred option if a frog is not moving and is using aquatic habitat or if the frog is within some sort of burrow or other refugia. The area shall be well-marked for avoidance by construction and a Service-approved biological monitor shall be assigned to the area when work is taking place nearby.

- 2) The animal shall be captured and moved when it is the only option to prevent its death or injury.

If appropriate habitat is located immediately adjacent to the capture location then the preferred option is short distance relocation to that habitat. This must be coordinated with the Service but the general guidance is the frog shall not be moved outside of the area it would have traveled on its own. Under no circumstances should a California red-legged frog be relocated to another property without the owner's written permission. It is Caltrans' and its designees' responsibility to arrange for that permission.

The release must be coordinated with the Service and will depend on where the individual was found and the opportunities for nearby release. In most situations the release location is likely to be into the mouth of a small burrow or other suitable refugia and in certain circumstances pools without non-native predators may be suitable for frogs.

Only Service-approved biologists for the project can capture California red-legged frogs. Nets or bare hands may be used to capture California red-legged frogs. Soaps, oils, creams, lotions, repellents, or solvents of any sort cannot be used on hands within two hours before and during periods when they are capturing and relocating California red-legged frogs. To avoid transferring disease or pathogens between sites during the course of surveys or handling of

the frogs, Service-approved biologists must use the following guidance for disinfecting equipment and clothing. These recommendations are adapted from the *Declining Amphibian Population Task Force's Code* which can be found in their entirety at: <http://www.open.ac.uk/daptf/>.

- i. All dirt and debris, including mud, snails, plant material (including fruits and seeds), and algae, shall be removed from nets, traps, boots, vehicle tires and all other surfaces that have come into contact with water and/or an amphibian. Cleaned items shall be rinsed with clean water before leaving each site.
- ii. Boots, nets, traps, and other equipment, shall then be scrubbed with either a 70 percent ethanol solution, a bleach solution (0.5 to 1.0 cup of bleach to 1.0 gallon of water), QUAT 128 (quaternary ammonium, use 1:60 dilution), or a 6 percent sodium hypochlorite 3 solution and rinsed clean with water between sites. Avoid cleaning equipment in the immediate vicinity of a pond or wetland. All traces of the disinfectant shall be removed before entering the next aquatic habitat.
- iii. Used cleaning materials (liquids, etc.) shall be disposed of safely, and if necessary, taken back to the lab for proper disposal.
- iv. Service-approved biologists shall limit the duration of handling and captivity. While in captivity, individual California red-legged frogs shall be kept in a cool, dark, moist, aerated environment, such as a clean and disinfected bucket or plastic container with a damp sponge. Containers used for holding or transporting shall not contain any standing water.

Reporting Requirements

Caltrans or its designees shall report to the Service any information about take or suspected take of listed-species not authorized in this document. Injured California red-legged frogs shall be cared for by a licensed veterinarian or other qualified person such as the onsite biologist; dead individuals of any listed species shall be preserved according to standard museum techniques and held in a secure location. The Service shall be notified within one working day of the discovery of death or injury to a listed species that results from project related activities or is observed at the project site. Notification shall include the date, time, and location of the incident or of the finding of a dead or injured animal clearly indicated on a U.S. Geological Survey 7.5-minute quadrangle and other maps at a finer scale, as requested by the Service, and any other pertinent information. Dead individual animals shall be placed in a sealed plastic bag with a piece of paper containing information on where and when the animal was found along with the name of the person who found it, the bag shall be frozen in a freezer located in a secure location until instructions are received from the Service regarding the disposition of the specimen or the

Service takes custody of the specimen. The Service contacts are the Coast-Bay/Forest Foothill Division Chief of the Endangered Species Program in the Sacramento Fish and Wildlife Office at (916) 414-6600 and the Resident Agent-in-Charge of Service's Office of Law Enforcement at (916) 569-8444.

Caltrans or its designees shall submit a post-project summary and compliance report prepared by the on-site biologist to the Sacramento Fish and Wildlife Office within sixty (60) calendar days of the date of the completion of construction activity. This report will be specific to the Peltier Creek Restoration Project and shall detail (i) dates that activities occurred; (ii) pertinent information concerning the success of the project in meeting compensation and other conservation measures; (iii) an explanation of failure to meet such measures, if any; (iv) known project effects on the California red-legged frog, if any; (v) occurrences of incidental take to listed species, if any; and (vi) other pertinent information.

REINITIATION--CLOSING STATEMENT

This concludes reinitiation of formal consultation on the proposed Interchange Project. As provided in 50 CFR § 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been maintained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion, including work outside of the project footprint analyzed in this opinion and including vehicle parking, staging, lay down areas, and access roads; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion including use of rodenticides or herbicides; relocation of utilities; and use of vehicle parking, staging, lay down areas, and access roads; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any additional take will not be exempt from the prohibitions of section 9 until consultation has been completed on a reinitiation.

If you have questions concerning this reinitiation addressing the Peltier Creek Restoration Project, please contact John Cleckler or Ryan Olah, Coast-Bay/Forest Foothills Division Chief, at the letterhead address or at (916) 414-6600.

Sincerely,



for Jan Knight
Acting Field Supervisor

cc:

Christopher States, Frances Malamud-Roam, and Carie Montero, Caltrans, Oakland, California

Janet Adams, Solano Transportation Authority, Suisun City, California

Melissa Escaron, California Department of Fish and Wildlife, Yountville, California

Paula Gill, U.S. Army Corps of Engineers, San Francisco, California

Carolyn Mulvihill, U.S. Environmental Protection Agency, San Francisco, California

Brendan Thompson, San Francisco Bay Regional Water Quality Control Board, Oakland,
California

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