

INFORMATION HANDOUT

- [1. United State Fish and Wildlife Biological Opinion](#)
- [2. California Department of Fish and Wildlife 1600 Streambed Alteration Agreement](#)
- [3. Regional Water Quality Control Board 401 Certification](#)
- [4. United States Army Corps of Engineers 404 Nationwide Permit](#)
- [5. SJCOG, Inc.- San Joaquin County Multi-Species Habitat Conservation & Open Space Plan \(SJMSCP\)](#)



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846

In Reply Refer To:
81420-2011-F-0576-1

JAN 18 2012

Mr. Frank Meraz
Interim Biology Branch Chief
California Department of Transportation, District 6
855 M Street, Suite 200
Fresno, California 93721

Subject: Biological Opinion for the Sandstone Creek Curve Correction Project, San Joaquin County, California (California Department of Transportation EA 10-0T1600, 10-SJ-PM 18.5/19.0)

Dear Mr. Meraz:

This is the U.S. Fish and Wildlife Service's (Service) response to the California Department of Transportation's (Caltrans) request for formal consultation on the Sandstone Creek Curve Correction Project (project) in San Joaquin County, California. Under the provisions of the July 1, 2007, Pilot Program Memorandum of Understanding between the Federal Highway Administration (FHWA) and Caltrans, FHWA assigned, and Caltrans assumed, FHWA's responsibilities under the National Environmental Policy Act as well as its responsibilities for environmental review, consultation, and coordination under other Federal environmental laws. Your letter requesting consultation, dated May 13, 2011, was received in this office on May 20, 2011. At issue are the effects of this proposed project on the central California distinct population segment of the federally-threatened California tiger salamander (*Ambystoma californiense*; central California tiger salamander), the federally-threatened vernal pool fairy shrimp (*Branchinecta lynchi*), and the federally-endangered vernal pool tadpole shrimp (*Lepidurus packardii*). This document has been prepared in accordance with section 7(a)(2) of the Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 *et seq.*) (Act).

The findings and recommendations of this biological opinion are based on: (1) the May 13, 2011, Request to Initiate Formal Consultation letter; (2) the *Biological Assessment for the Sandstone Creek Curve Correction Project, On State Route 26, East of Stockton, in San Joaquin County, California*, dated May 2011 (BA), and prepared by Caltrans, District 6; (3) electronic mail (e-mail) and telephone exchanges between the Service and Caltrans between June and September 2011; and (4) other information available to the Service.

The Service has reviewed the proposed project and concurs with Caltrans' determinations that the project is likely to adversely affect the central California tiger salamander and the vernal pool fairy shrimp.

Following review of the BA and other information sources and discussion with Caltrans biologists, the Service concurs with Caltrans' determination that the proposed project is not likely to adversely affect the vernal pool tadpole shrimp. This is based, in part, on the results of protocol-level surveys conducted for vernal pool branchiopods during the 2003-2004 and 2004-2005 wet seasons for the previously unconstructed Shelly and Wimer Curve Correction projects, out of which the current project developed. Thirty-six vernal pools were surveyed and no vernal pool tadpole shrimp were identified in any of the 36 sampled. Nor was the species found during surveys for the SR 26 Savage Way Rehabilitation Project in San Joaquin and Calaveras Counties, the west end of which is located approximately 1.5 miles east of Sandstone Creek (Service file numbers 1-1-03-F-0053, amended 1-1-07-F-0031 and 1-1-07-F-0088; 81420-2010-TA-0983). However, protocol-level surveys of three vernal pools were conducted for only one season for the Savage Way Rehabilitation Project in 2000; in this instance, Caltrans assumed presence of the vernal pool tadpole shrimp. During protocol-level botanical surveys conducted by Caltrans biologists in the vernal pool areas on the project site in the spring and summer of 2011, no vernal pool tadpole shrimp were observed. Most pools, with the exception of a known central California tiger salamander breeding pool, were clear and did not provide the turbid conditions in which the vernal pool tadpole shrimp is generally found. According to the California Department of Fish and Game's (CDFG) California Natural Diversity Database (CNDDDB, 2011), the closest occurrence for the species is recorded as approximately 17 miles west of the current project area. Historically, the vernal pool tadpole shrimp existed throughout the Central Valley. Currently, its distribution still extends across the valley but has been significantly reduced so that the species is uncommon even where vernal pool habitats do occur (Service, 2005).

This concludes the Service's consideration of the project's impacts to the vernal pool tadpole shrimp. If substantial changes are made to the proposed project or if new information is presented to the Service, this determination may be re-evaluated and reinitiation of consultation recommended.

Caltrans has determined that there will be no effect of the proposed action on three plant species, the fleshy owl's clover (*Castilleja campestris* ssp. *succulenta*), the Colusa grass (*Neostapfia colusana*), and the Greene's tuctoria (*Tuctoria greenei*), based on the results of protocol-level botanical surveys conducted during the summer of 2011 which confirmed species absence. However, because habitat in the project area is still considered to be suitable for these species, Caltrans has incorporated an additional minimization measure specifically addressing these plants, which is described under the *Proposed Avoidance and Minimization Measures* section. The remainder of this biological opinion will address the concerns of the proposed project upon the central California tiger salamander and the vernal pool fairy shrimp.

Consultation History

May 20, 2011. The Service received a letter from Caltrans requesting to initiate formal consultation for the project. The initiation package also included a BA, dated May 2011.

June 30, 2011. The Service e-mailed Caltrans with questions regarding the BA.

July 7, 2011. Caltrans e-mailed the Service its responses to the BA-related questions and comments.

July 27, 2011. Caltrans informed the Service that updated botanical surveys for the project had been completed and that no federally-listed plants had been found on-site during the surveys. A botanical report was currently in progress.

September 15-16, 2011. The Service e-mailed Caltrans with further BA-related follow-up questions concerning culvert installation, vegetation removal, borrow/fill material, avoidance and minimization measures, and the vernal pool tadpole shrimp determination. Caltrans promptly responded.

September 29, 2011. The Service telephoned Caltrans to further discuss the status of the vernal pool tadpole shrimp determination, potential conservation bank utilization, rock slope protection (RSP) acreage areas, the botanical survey report, and mapping clarifications regarding the BA. Caltrans emailed the Service further information regarding the RSP areas and later telephoned the Service to follow-up on the vernal pool tadpole shrimp discussion to confirm that Caltrans would make a not likely to adversely affect determination for that species.

BIOLOGICAL OPINION

Description of the Proposed Action

Caltrans proposes to realign two existing curves and to replace the Sandstone Creek Bridge with a triple box culvert along a 0.5 mile (mi) segment of SR 26 from postmile (PM) 18.5 to 19.0, just west of Shelley Road in eastern San Joaquin County, in the Valley Springs SW United States Geological Survey (USGS) 7.5- minute quadrangle. SR 26 is a conventional east-west two-lane highway beginning at SR 4 in the City of Stockton, and ending at SR 88 in Amador County. The existing alignment within the project area consists of two lanes, approximately 10.5 ft. in width, with no shoulders, located along a rural section of the highway. The curve will be realigned with standard radii conforming to the design speed of this segment of SR 26. The realignment will involve the construction of new embankments with standard side slopes and will also require the relocation of public utilities, including one Pacific Gas & Electric (PG&E) power pole.

Drainage ditches will be installed along the new alignment of the highway within the newly acquired ROW in order to accommodate road run-off. These ditches will be able to discharge into natural drainages, but are unlikely to discharge into any of the surrounding vernal pools. Four reinforced concrete pipe culverts, along with RSP installed at the outfall location of each culvert, will replace existing culverts within the project limits; the bridge at Sandstone Creek will be replaced with a triple box culvert. Proposed areas of the four RSP sites are 0.0019 acre (ac) (one location) and 0.0017 ac (three locations); the area of the triple box culvert RSP is 0.034 ac. These are preliminary estimates as the existing ground may dictate the type or quantity of RSP applied. Two of these culvert sites are natural drainage crossings: one is at Sandstone Creek and one is a swale located approximately 900 ft. west of the creek. The remaining three culverts will

accommodate road run-off. A temporary construction easement will be established covering roughly half of the southwest portion of the 0.5 mi segment. A temporary detour road to re-route traffic will also be provided while construction is in progress. The old road segment will be chipped and removed.

There is no proposed tree removal; however, some grassland vegetation removal will be necessary due to the grading and paving associated with installation of the new road.

According to Caltrans, two previously unconstructed projects, the Shelley and Wimer Curve Correction Projects, were originally proposed to span SR 26 for three miles at this location from PM 17.1 to 20.1. However, due to the size of the projects and the anticipated extent of impacts, they were determined to be too expensive to construct. As a result, the current project considered in this consultation was selected out of the original three mile stretch of SR 26 as a more cost effective safety project to reduce the number of and severity of accidents involving vehicles running off the road at this location.

The project is anticipated to begin construction in June 2013 and conclude in October 2013. A maximum estimate of 100 work days is currently set. No night work is expected for this project. Vehicle staging will be restricted to the existing ROW, the temporary detour roadway, and the proposed temporary construction easement area. At this time, Caltrans does not have much detail regarding where the contractor will derive fill material. Caltrans has indicated it will try to reuse native soil on-site to the greatest extent possible. The remainder of required fill will be clean soil acquired off-site at a Surface Mining and Reclamation Act-approved borrow site.

Proposed Avoidance and Minimization Measures

According to the BA and further discussion with Caltrans biologists, Caltrans proposes to implement the following measures to minimize and avoid impacts to sensitive natural communities, plant species, and listed species that are both known to occur, or may occur, within the project area.

1. Prior to construction, Caltrans will install orange mesh fencing and/or new ROW fencing along the edge of newly acquired ROW in order to avoid unplanned, accidental, or construction-related impacts to all ephemeral pools and upland habitat that are located outside the project area. These will be established as environmentally sensitive areas (ESA).
2. Prior to project groundbreaking, Caltrans will implement a worker educational training to instruct personnel on the status of vernal pool and grassland habitat; how to avoid unanticipated effects, including implementing daily inspections; and the potential penalties for not complying with the conditions and requirements of the biological opinion.
3. Chemicals, lubricants, and petroleum products will be closely monitored and precautions used. If a spill occurs, cleanup will take place immediately. All equipment shall be maintained such that there will be no leaks of fluids such as gasoline, oils, or solvents.

4. Dust control measures will be implemented during construction.
5. Special provisions will be included in the construction contract for the protection of migratory birds.
 - a. To the maximum extent feasible, trees will be avoided and ESA fencing installed to protect them.
 - b. The contractor will be required to notify the resident engineer prior to beginning any construction related activity during the nesting season (approximately February 15 to September 1).
 - c. A preconstruction survey for nesting migratory birds will be conducted no more than 14 days prior to project construction and tree/vegetation removal.
6. The construction contractor will comply with all requirements specified by the CDFG and the Service.
7. Construction within 0.6 mile of potential central California tiger salamander habitat (this includes the entire length of the project area) will be timed to occur during the dry season, between approximately April 15 and October 15, so as to avoid impacting breeding individuals at seasonal wetland locations. The dry season window may depend on rainfall and/or site conditions.
8. Habitat areas temporarily impacted by project activities will be restored to their original conditions once construction is completed. A re-vegetation plan will be developed in conjunction with Caltrans' design and landscaping teams to create an appropriate seed mix for the areas.
9. Caltrans will conduct full protocol-level botanical surveys during the appropriate blooming periods for the following three species: the fleshy owl's clover, the Colusa grass, and the Greene's tuctoria. Surveys will be undertaken prior to the start of construction if a period of five years or more passes between the original summer 2011 focused botanical surveys and the construction start date in order to discover any future changes in, or new additions to, the floristic composition of federally-listed plant species at the project site.
10. Caltrans proposes to compensate for effects to the vernal pool fairy shrimp and central California tiger salamander as a result of the permanent modification and loss of vernal pools. These vernal pools serve as habitat for the vernal pool fairy shrimp, as well as aquatic breeding habitat for the central California tiger salamander; Caltrans proposes to compensate for the loss of 0.17 ac of this habitat by purchasing 0.51 ac worth of credits (using a 3:1 compensation ratio). Caltrans also proposes to compensate for temporary effects to 0.01 ac of this habitat by purchasing 0.01 ac worth of credits (using a 1.1:1 compensation ratio). Caltrans further proposes to compensate for permanent effects to 3.5 ac of central California tiger salamander upland habitat by purchasing 10.5 ac worth

of credits (using a 3:1 compensation ratio), and for temporary effects to 1.62 ac of upland habitat, by purchasing 1.78 ac worth of credits (using a 1.1:1 compensation ratio). This results in a total 12.28 ac worth of credits for central California tiger salamander upland habitat and 0.52 ac worth of credits for central California tiger salamander and vernal pool fairy shrimp aquatic habitat to be purchased at a Service-approved conservation bank. Caltrans has proposed using the Fitzgerald Ranch Conservation Bank in San Joaquin County.

Action Area

The action area is defined in 50 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.” The action area includes those areas in the project footprint that will be directly impacted by construction-related activities; this is composed of the 0.5 mile segment of existing SR 26 along which road removal, temporary detour road construction, staging/access, curve realignment, bridge replacement, and culvert installation activities will occur; portions of annual non-native grassland within the newly proposed ROW; associated vernal pools, a segment of Sandstone Creek crossing under SR 26, and a segment of a swale west of the creek that are located within the ROW boundaries, and which include the 0.18 ac of aquatic habitat and the 5.12 ac of upland habitat that will be permanently and temporarily affected by the aforementioned construction work. The action area also includes neighboring pools and associated upland areas located outside of the proposed new ROW that will be indirectly affected as a result of changes to topography, drainage, and hydrology during construction work.

Analytical Framework for the Jeopardy/No Jeopardy Determination

In accordance with policy and regulation, the following analysis relies on four components to support the jeopardy/no jeopardy determination for the central California tiger salamander and vernal pool fairy shrimp: (1) the *Status of the Species*, which evaluates the range-wide condition of the central California tiger salamander and vernal pool fairy shrimp, the factors responsible for that condition, and their survival and recovery needs; (2) the *Environmental Baseline*, which evaluates the condition of the central California tiger salamander and vernal pool fairy shrimp in the action area, the factors responsible for that condition, and the role of the action area in the species' survival and recovery; (3) the *Effects of the Action*, which determines the direct and indirect impacts of the proposed Federal action and the effects of any interrelated or interdependent activities on the central California tiger salamander and vernal pool fairy shrimp; and (4) *Cumulative Effects*, which evaluates the effects of future, non-Federal activities in the action area on the central California tiger salamander and vernal pool fairy shrimp.

In accordance with policy and regulation, the jeopardy/no jeopardy determination is made by evaluating the effects of the proposed Federal action in the context of the current status of the central California tiger salamander and vernal pool fairy shrimp, taking into account any cumulative effects, to determine if implementation of the proposed action is likely to cause an appreciable reduction in the likelihood of both the survival and recovery of these species in the wild.

The following analysis places an emphasis on consideration of the range-wide survival and recovery needs of the central California tiger salamander and vernal pool fairy shrimp, and the role of the action area in meeting those needs as the context for evaluating the significance of the effects of the proposed Federal action, combined with cumulative effects, for purposes of making the jeopardy/no jeopardy determination. In short, a non-jeopardy determination is warranted if the proposed action is consistent with maintaining the role of habitat for the central California tiger salamander and vernal pool fairy shrimp populations in the action area for the survival and recovery of these species.

Status of the Species

California Tiger Salamander

On May 23, 2003, the Service proposed to list the central California tiger salamander as threatened. On August 4, 2004, the Service listed the species as threatened throughout its range and in doing so, changed the status of the Santa Barbara and Sonoma County populations from endangered to threatened (69 FR 47212). On August 19, 2005, U.S. District Judge William Alsup vacated the Service's downlisting of the Sonoma and Santa Barbara populations from endangered to threatened.

Description

The California tiger salamander is a large, stocky, terrestrial salamander with a broad, rounded snout. Adults may reach a total length of 8.2 inches (Petranka, 1998). The California tiger salamander exhibits sexual dimorphism with males tending to be larger than females. The coloration of the California tiger salamander is white or yellowish markings against black. As adults, the California tiger salamander tends to have creamy yellow to white spotting on the sides with much less on the dorsal surface of the animal, whereas other tiger salamander species have brighter yellow spotting that is heaviest on the top of the animals.

Distribution

Historically, the California tiger salamander inhabited low elevation grassland and oak savanna plant communities of the Central Valley, and adjacent foothills, and the inner Coast Ranges in California (Jennings and Hayes, 1994; Storer, 1925; Shaffer *et al.*, 1993). Along the Coast Ranges, the species occurred from the Santa Rosa area of Sonoma County south to the vicinity of Buellton in Santa Barbara County. In the Central Valley and surrounding foothills, the species occurred from northern Yolo County southward to northwestern Kern County and northern Tulare County. The species has been recorded as ranging from near sea level, to approximately 3,900 ft. in the Coast Ranges, to approximately 1,600 feet in the Sierra Nevada foothills (Shaffer *et al.*, 2004). Currently, California tiger salamanders in the Central Valley and Sierra Nevada foothills are patchily distributed in remaining suitable habitat throughout their historic range.

Life History

The California tiger salamander requires both wetland and adjacent upland habitat to complete its life cycle (Shaffer *et al.*, 1993). Although the larvae develop in the vernal pools and ponds in which they hatch, California tiger salamanders are otherwise terrestrial and spend most of their post-metamorphic lives in widely dispersed underground retreats (Shaffer *et al.*, 2004; Trenham *et al.*, 2001). Subadult and adult California tiger salamanders spend the dry summer and fall months of the year in small mammal burrows, such as those of California ground squirrels (*Spermophilus beecheyi*) and Botta's pocket gopher (*Thomomys bottae*) (Loredo and Van Vuren, 1996; Petranka, 1998; Trenham, 1998a).

The larval stage of the California tiger salamander usually lasts three to six months, as most seasonal ponds and pools dry up during the summer (Petranka, 1998). Amphibian larvae must grow to a critical minimum body size before they can metamorphose to the terrestrial stage (Wilbur and Collins, 1973). Feaver (1971) found that larvae metamorphosed and left the breeding pools 60 to 94 days after the eggs had been laid, with larvae developing faster in smaller, more rapidly drying pools. The longer the ponding duration, the larger the larvae and metamorphosed juveniles are able to grow, and the more likely they are to survive and to reproduce (Pechmann *et al.*, 1989; Semlitsch *et al.*, 1988; Morey, 1998; Trenham, 1998b). The larvae perish if a site dries before metamorphosis is complete (Anderson, 1968; Feaver, 1971).

In the late spring or early summer, before the ponds dry completely, metamorphosed juveniles leave them and enter upland habitat. This emigration occurs in both wet and dry conditions (Loredo and Van Vuren, 1996; Loredo *et al.*, 1996). Unlike their winter migration, the wet conditions that California tiger salamanders prefer do not generally occur during the months in which their breeding ponds begin to dry. As a result, juveniles may be forced to leave their ponds on rainless nights. Under these conditions, they may move only short distances to find temporary upland sites for the dry summer months, waiting until the next winter's rains to move further into suitable upland refugia. Once juvenile California tiger salamanders leave their natal ponds for upland refugia, they typically do not return to ponds to breed for an average of four to five years. However, they remain active in the uplands, coming to the surface during rainfall events to disperse or forage.

The upland component of California tiger salamander habitat typically consists of grassland and savannah. Within these upland habitats, adult California tiger salamanders spend the greater part of their lives in the underground burrows of California ground squirrels and Botta's pocket gophers (Barry and Shaffer, 1994; Loredo *et al.*, 1996; Trenham, 1998a). Camel crickets (*Ceuthophilus spp.*) and other invertebrates within these burrows provide food for the California tiger salamander. Upland refugia also provide protection from the sun and wind associated with the dry California climate that can cause desiccation of amphibian skin. Although the California tiger salamander is a member of a family of "burrowing salamanders," it is not known to create its own burrows in the wild, likely due to the hardness of soils in the California ecosystems in which they are found. Because they live underground the California tiger salamander is rarely encountered even where abundant. Burrows used as upland refugia may or may not also be occupied by mammals, but because they collapse within 18 months if not maintained, an active population of burrowing mammals is necessary to sustain sufficient underground refugia for the

species (Loredo *et al.*, 1996). However, a recent study has shown that an apparent absence of rodent burrows does not directly result in an absence of California tiger salamanders. Significant numbers of California tiger salamanders were found to inhabit upland habitat that appeared to be without rodent burrows (Orloff, 2007), where the California tiger salamander may utilize leaf litter or desiccated cracks in soil as refugia.

Upland burrows inhabited by the California tiger salamander have often been referred to as "aestivation" sites. However, "aestivation" implies a state of inactivity, while most evidence suggests that California tiger salamanders remain active in their underground dwellings. A recent study has found that California tiger salamanders move, feed, and remain active in their burrows (van Hattem, 2004). Because California tiger salamanders arrive at breeding ponds in good condition and are heavier when entering the pond than when leaving, researchers have long inferred that California tiger salamanders are feeding while underground. Recent direct observations have confirmed this (Trenham, 2001; van Hattem, 2004). Thus, "upland habitat," rather than "aestivation" site, is a more accurate description of the terrestrial areas used by the California tiger salamander.

Dispersal and migration movements made by the California tiger salamander can be grouped into two main categories: (1) breeding migration; and (2) interposed dispersal. Breeding migration is the movement of the California tiger salamander to and from a pond from the surrounding upland habitat. After metamorphosis, juveniles move away from breeding ponds into the surrounding uplands, where they live continuously for several years. Following breeding, adult California tiger salamanders return to upland habitats, where they may live for one or more years before breeding again (Trenham *et al.*, 2000).

California tiger salamanders are known to travel large distances from breeding ponds into upland habitats. Maximum distances moved are generally difficult to establish for any species. California tiger salamanders are also known to travel between breeding ponds; one study found that 20 to 25 percent of the individuals captured at one pond were recaptured later at ponds approximately 1,900 and 2,200 ft. away (Trenham *et al.*, 2000). In addition to traveling long distances during migration to or dispersal from ponds, California tiger salamanders may reside in burrows that are far from ponds.

Although previously cited information indicates the California tiger salamander can travel long distances, they typically remain close to their associated breeding ponds. A trapping study conducted in Solano County during the winter of 2002-2003 suggested that juveniles dispersed and used upland habitats further from breeding ponds than adults (Trenham and Shaffer, 2005). These data suggest that many California tiger salamanders travel far while still in the juvenile stage. Post-breeding movements away from breeding ponds by adults, however, appear to be much shorter. During post-breeding emigration from aquatic habitat, radio-equipped adult California tiger salamanders were tracked to burrows located between 62 and 813 ft. from their breeding ponds (Trenham, 2001).

Rather than staying in a single burrow, most individuals also appear to use several successive burrows at increasing distances from the pond. Although the studies discussed above provide an approximation of the distances that California tiger salamanders regularly move from their

breeding ponds, upland habitat features will drive the details of movements in a particular landscape. Trenham (2001) found that radio-tracked adults favored grasslands with scattered large oaks, over more densely wooded areas. Based on radio-tracked adults, there is no indication that certain habitat types are favored as corridors for terrestrial movements (Trenham, 2001). In addition, at two ponds completely encircled by drift fences and pitfall traps, captures of arriving adults and dispersing new metamorphs were distributed roughly evenly around the ponds. Thus, it appears that dispersal into the terrestrial habitat occurs randomly with respect to direction and to habitat.

Lifetime reproductive success for the California tiger salamander and other tiger salamanders is low. With low recruitment, isolated populations are susceptible to unusual, randomly occurring natural events as well as to human-caused factors that reduce breeding success and individual survival. Factors that repeatedly lower breeding success in isolated pools can quickly extirpate a population.

Threats analysis

In addition to direct loss of habitat, the widespread conversion of undisturbed land to urban and agricultural uses has fragmented habitat throughout the range of the California tiger salamander and has isolated several remaining populations (Shaffer *et al.*, 1993), precluding dispersal between sub-populations and jeopardizing the viability of metapopulations (broadly defined as multiple subpopulations that occasionally exchange individuals through dispersal, and are capable of colonizing or "rescuing" extinct habitat patches). California tiger salamanders are also prone to chance environmental or demographic events, to which small populations are particularly vulnerable.

Agricultural activities that threaten California tiger salamander survival include disking and deep-ripping, as well as the cultivation, planting, and maintenance of row crops, orchards, and vineyards. Historically in California, there existed approximately 15.59 million acres of valley and coastal grasslands, blue oak/foothill pine, valley oak, or mixed hardwood lands (Kuchler, 1988). Urbanization and intensive agriculture have eliminated virtually all valley grassland and oak savanna habitat from the Central Valley floor.

Light-to-moderate livestock grazing by cattle, sheep, and horses is generally thought to be compatible with continued successful use of rangelands by the California tiger salamander so long as the grazed areas do not also have intensive burrowing rodent control efforts (Shaffer *et al.*, 1993; S. Sweet, personal communication, 1998; B. Shaffer and P. Trenham, personal communication, 2003). By maintaining shorter vegetation, grazing may make areas more suitable for ground squirrels whose burrows are essential to California tiger salamanders. Widespread control of ground squirrels and pocket gophers may also pose a significant indirect threat to the California tiger salamander by reducing the number of upland burrows available to specific California tiger salamander subpopulations (Loredo-Prendeville *et al.*, 1994).

The relative loss of native habitat has been even more extreme with respect to vernal pools, the historic breeding habitat of the California tiger salamander. Remaining vernal pool complexes are now fragmented and reduced in area. Where vernal pools remain, they are often disturbed

and degraded by drainage modification, overgrazing, off road vehicles use, non-native plant invasion, trash dumping, road construction, and urban development (Service, 1994b; Keeler-Wolf *et al.*, 1998). While California tiger salamanders do breed successfully in stock ponds, these ponds often are poorer habitat for California tiger salamanders than are natural vernal pools. Hydroperiods in stock ponds may be so short that larvae cannot metamorphose, or so long that predatory fish and bullfrogs can colonize the pond (Shaffer *et al.*, 1993; Seymour and Westphal, 1994). Extirpation of the California tiger salamander in stock ponds is likely if, as commonly occurs, fish are introduced (Shaffer *et al.*, 1993; Seymour and Westphal, 1994).

Status with Respect to Recovery

The Service determined that conserving the California tiger salamander over the long-term requires a five-pronged approach: (1) maintaining the current genetic structure across the species range; (2) maintaining the current geographical, elevational, and ecological distribution; (3) protecting the hydrology and water quality of breeding pools and ponds; (4) retaining or providing for connectivity between locations for genetic exchange and re-colonization; (5) protecting sufficient barrier-free upland habitat around each breeding location to allow for sufficient survival and recruitment to maintain a breeding population over the long-term. Specific actions that help meet these goals include, but are not limited to (1) protection, restoration, and management of large blocks of contiguous aquatic and terrestrial habitat; (2) management of stock ponds to eliminate or reduce populations of non-native predators; (3) elimination of non-native tiger salamanders and their hybrids; and (4) reduced exposure to contaminants, particularly in the vulnerable larval stages (Service, 2004b, 2005a).

According to the California Natural Diversity Database (CNDDDB, 2011), there are 11 recorded occurrences of the species within the Valley Springs SW USGS 7.5- minute quadrangle. The closest occurrence, recorded in 2004, is located within the project action area. Other proximate occurrences include observations located within 1.1 miles and 1.3 miles of the approximate centerpoint of the action area; these were also recorded in 2004. A fourth record from 1990 lies approximately 1.5 miles away from the approximate centerpoint of the action area.

Vernal Pool Fairy Shrimp

Refer to the *Vernal Pool Fairy Shrimp (Branchinecta lynchi) 5-Year Review: Summary and Evaluation* (Service, 2007) for the current Status of the Species. The 5-Year Review provides a description of the species, including its distribution, habitat requirements and other life history information, current threats, and an analysis of progress made in recovering the species.

According to the CNDDDB (2011), there are four recorded occurrences of the species within the Valley Springs SW USGS 7.5- minute quadrangle. The closest occurrence, which was recorded in 2001, is located approximately 1.8 miles from the approximate centerpoint of the action area. One further record from 2001 is located within 2.1 miles of the approximate centerpoint.

Environmental Baseline

California Tiger Salamander

A primary cause of the decline of the central California tiger salamander is the conversion of natural habitat to modified habitat for urban uses (Service, 2003b, 2004a, 2004b; Shaffer *et al.*, 1993). Road-related activities in particular lead to habitat loss and disturbance stemming from new construction, expansions, and realignments. Seasonal wetlands in the form of vernal pools are distributed within the grasslands present in the action area; the ephemeral Sandstone Creek, which contains sparse vegetation due to both scour and the sandstone quality of the soil within the creek bed, and which experiences a significant amount of disturbance from cattle grazing, crosses under the highway. Since SR 26 is an existing piece of roadway infrastructure in the action area, original road construction and past roadway usage have affected the species. It is reasonably likely that previously existing ephemeral pools suitable as habitat for the central California tiger salamander were eliminated and filled when the highway was initially built; that existing upland habitat for the central California tiger salamander was also lost due to highway construction; that previously contiguous habitat became bisected by the introduction of the road, thereby decreasing safe access between neighboring vernal pools and associated upland refugia in the complex; and that road maintenance and weed control efforts along roadway shoulders have turned portions of grassland into barren gravel areas and continue to maintain them as such.

Suitable breeding habitat for the central California tiger salamander exists in the action area in the form of these ephemeral pools. It is reasonably likely that Sandstone Creek also provides suitable habitat given that the species is sometimes found in slow-moving streams; that the species is known to occur in the same aquatic habitat types as the vernal pool fairy shrimp (Service, 2005); and that the creek is reasonably likely to be suitable habitat for the vernal pool fairy shrimp since another of its community associations, the California linderiella (*Linderiella occidentalis*), has been identified in the creek. Caltrans did not conduct protocol-level surveys for the central California tiger salamander during the original Shelley and Wimer projects since larvae were found during the 2003-2004 and 2004-2005 wet season vernal pool branchiopod surveys. Three pools within the study area at the time contained larvae. One of these pools is currently situated within the current action area: it is positioned outside the proposed ROW, but within the eastern-most portion of the proposed construction easement area. An approximately 900 ft. segment of the easement area extending through upland habitat immediately west of the pool is expected to be temporarily disturbed by construction activities. Non-native grassland habitat, currently used as pasture for livestock grazing, provides suitable upland habitat for the species. Ground squirrels were observed in the project area during reconnaissance surveys undertaken between November 2008 and January 2011 so the grassland provides potential burrow sites for the central California tiger salamander.

Caltrans did not conduct central California tiger salamander surveys for the current project and instead assumed presence of the species based on the existence of known occurrences in the previously identified breeding pool, the presence of suitable upland habitat for the species, and the documentation of CNDDDB occurrences in close proximity to the action area.

Vernal Pool Fairy Shrimp

As with the California tiger salamander, effects to the vernal pool fairy shrimp derive mainly from direct habitat loss due to agricultural conversion and urban development (Service, 2005), including that of transportation infrastructure. In the action area, it is reasonably likely that previously existing ephemeral pools that were suitable as habitat for the vernal pool fairy shrimp were removed from the vernal pool complex by past actions like the original construction of SR 26. It is also likely that contamination occurrences, such as that of heavy metal accumulation from the exhaust of vehicles continuously using the highway, has entered the pools and waterways as a result of road run-off during storm events. Trombulak and Frissel (2000) found that concentrations of contaminants were greatest within 66 ft. of a roadway, but there were instances in which this distance extended to around 660 ft. Therefore, pools in closer proximity to the highway may have experienced and continue to experience greater exposure to such contamination.

Caltrans conducted two wet season protocol-level vernal pool branchiopod surveys for the original Shelley and Wimer Curve Correction projects during the 2003-2004 and 2004-2005 wet seasons, between October and April. Caltrans followed the Service's 1996 *Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for the Listed Vernal Pool Branchiopods*. As a result of those surveys, a total of 36 potential pools were identified and sampled. The vernal pool fairy shrimp was not found; however, 15 pools at varying distances from the highway were discovered to contain the California linderiella, which is known to co-exist with the vernal pool fairy shrimp. Within the present action area, the California linderiella was identified in eight locations, including the previously identified central California tiger salamander breeding pool and Sandstone Creek. Caltrans has not conducted updated protocol-level vernal pool branchiopod surveys; however, it has instead ground-verified the existing data and considers plant composition, pool size/numbers, and land use to be similar to previous conditions. Caltrans has elected to infer presence of the vernal pool fairy shrimp within the action area based on suitable habitat features, the quality of the vernal pools, and close proximity of known species occurrences.

The Service anticipates that the vernal pool fairy shrimp is reasonably certain to occur within the action area based on the biology and ecology of the species; the presence of suitable aquatic habitat necessary for all its life-cycle functions in the form of seasonal pools and Sandstone Creek; the presence of another communally associated branchiopod species, the California linderiella (since California linderiella and vernal pool fairy shrimp are known to co-exist, it is reasonably likely that the vernal pool fairy shrimp can also exist in Sandstone Creek); and recorded species occurrences in locales neighboring the project's action area.

We are unaware of any unrelated Federal actions that have been subject to prior section 7 formal or informal consultation that have specifically occurred within the action area, and that have affected the environmental baselines of the species. Nor are we cognizant of any prior or contemporaneously occurring State, local, or private actions specific to the action area.

Effects of the Proposed Action

The proposed project is likely to result in a number of adverse effects to the central California tiger salamander and vernal pool fairy shrimp. Construction work, such as excavation, filling, and paving activities associated with the realignment of two existing curves and replacement of the Sandstone Creek Bridge with a triple box culvert, will permanently and temporarily affect 0.17 ac and 0.01 ac, respectively, of aquatic habitat in the form of two vernal pools, Sandstone Creek, and a swale situated to the west of the creek. The vernal pool fairy shrimp is linked throughout its entire life cycle to vernal pool habitat; therefore, as a result of the permanent loss of this aquatic habitat type, the species will be harmed by the proposed activities. One of these ephemeral pools also serves as a known central California tiger salamander breeding site and is therefore essential to subsequent larval growth and development for this species. Although construction work is anticipated to begin in June after the typical major spring rain events have passed, pool inundation at these sites will depend on the weather conditions at that time.

There are numerous vernal pools located within the action area that will not be directly adversely affected. No direct permanent or temporary effects to these pools are anticipated since the installation of ESA fencing and/or new ROW fencing prior to the start of construction will prevent personnel and equipment from entering these locales. However, it is likely that indirect effects resulting from construction will alter the topography and, potentially, the drainage and hydrology of neighboring pools and associated upland areas in the complex. Infrastructure-related activities like grading and filling can affect the amount and quality of water available to the perched water tables characteristic of vernal pool areas.

Project activities will permanently affect 3.5 ac of suitable central California tiger salamander upland habitat through the acquisition of new ROW and the excavation, filling, and/or paving of this ROW and the temporary detour roadway. Temporary effects to 1.62 ac of upland habitat will result from the relocation of ROW boundaries and activities associated with the temporary construction easement and grading and/or trenching for the installation of the drainage features; areas expected to be temporarily affected lie outside of the cut and fill boundaries but within the boundaries of the proposed new ROW. Since the California tiger salamander spends the majority of its life cycle in burrows in upland areas, the loss of, and disturbance to, this habitat will adversely affect the species. Caltrans proposes to offset this loss of both aquatic and upland habitat through the purchase of conservation credits at an appropriate Service-approved conservation bank. The proposed preservation of suitable vernal pool and upland habitat will minimize the effects of the permanent and temporary effects to the habitat considered in this biological opinion. This compensation measure will help protect and manage suitable habitat for the conservation of the species in perpetuity. The protected land purchased through credits will provide habitat to offset the habitat lost and disturbed as a result of the project, ensuring that the central California tiger salamander and vernal pool fairy shrimp continue to persist and recover.

Curve realignment and bridge replacement work within the action area is likely to result in the loss of central California tiger salamanders. The greatest effects to the central California tiger salamander in the form of mortality of, or injury to, juveniles or adults will likely come from being crushed or entombed in underground burrows by project-related equipment and vehicles due to activities like excavation and filling.

Although construction is anticipated to occur during the dry season (a June to October schedule is identified for project purposes), Caltrans has indicated that the potential window is flexible enough to begin around mid-April and extend through mid-October. During the initial part of this window, pools may continue to hold water from previous rain events; during the window's advanced months, storm events may commence. It is always possible for construction timelines to change depending on the reality of how construction events unfold and progress on the ground. Therefore, in the event that it becomes necessary to alter the work schedule either to begin earlier or continue later than anticipated, and significant rainfall occurs during these times resulting in ponding, it is reasonably likely to expect the central California tiger salamander to emerge from its upland refugia and traverse the project area to its seasonal breeding pools. In such circumstances, it is likely that the species will be injured or killed by construction equipment and personnel moving about the project site, or be harmed by falling into open construction trenches and holes, thereby becoming trapped.

There is evidence that site fidelity to both breeding habitat and upland refugia is significant for the species. One study in Monterey County found that most central California tiger salamander individuals recaptured during the course of the study returned to the ponds where they were initially marked from season to season (an estimated 78 percent returned to the same ponds compared with an estimated 22 percent that dispersed to other ponds) (Trenham *et al.*, 2001). In one pool in particular, those exhibiting fidelity represented 70 percent of recaptured first-time breeders and 74 percent of recaptured experienced breeders (Trenham *et al.*, 2001). The central California tiger salamander has also been shown to exhibit fidelity to its upland refugia habitat. Although Trenham (2001) reported that most individuals did not always remain in their initial burrow, but made one or more additional moves away from their breeding pond on rainy nights, Orloff's study (2011), which focused on movement patterns and migration distances of an upland population of the central California tiger salamander in Contra Costa County, found that the species exhibited fidelity to upland habitat locations and were present in relatively large numbers farther from breeding ponds than previously reported. It is thus reasonably likely that individuals attempting to access and return to the 0.17 ac of ephemeral pools that will be destroyed by the present project's proposed construction, may not search for another pool if their original pools are eliminated and may forego reproduction for one or more years. Likewise, individuals inhabiting the 3.5 ac of upland habitat that will be eliminated permanently may not easily make the transition to other refugia habitat, putting them at greater risk of mortality from predation and desiccation.

Cumulative Effects

Cumulative effects are those impacts 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 non-Federal actions currently planned in or around the SR 26 Sandstone Creek action area that would directly remove or further disturb central California tiger salamander and vernal pool fairy shrimp habitat.

Conclusion

After reviewing the current status of the central California tiger salamander and the vernal pool fairy shrimp, the environmental baselines for the action area, the project-specific effects of the Sandstone Creek Curve Correction Project, and the cumulative effects, it is the Service's biological opinion that the project, as proposed, is not likely to jeopardize the continued existence of these two species. We base this determination on the fact that the number of central California tiger salamanders likely to be taken is low relative to its range-wide status; also, although there will be a loss of ephemeral aquatic habitat, and therefore of all those vernal pool fairy shrimp present in these pools, the number likely to be taken remains minimal relative to its range-wide status. We further base this determination on the proposed implementation of minimization measures such as protective buffer and ROW fencing, personnel training, and compensation to offset lost and disturbed vernal pool and upland habitats.

INCIDENTAL TAKE STATEMENT

Section 9 of the Endangered Species Act and Federal regulations pursuant to section 4(d) of the Act, prohibit take of endangered and threatened species, respectively, without special exemption. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct. The Service defines harassment as an intentional or negligent act or omission that creates the likelihood of injury to listed species by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. The Service further defines harm to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as 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), take that is incidental to and not intended as part of the agency action is not considered to be prohibited, provided such taking is in compliance with the terms and conditions of this Incidental Take Statement.

The measures described below are nondiscretionary, and must be implemented by Caltrans so that they become binding conditions of any grant or permit issued to the applicant, as appropriate, for the exemption under section 7(o)(2) to apply. Caltrans has a continuing duty to regulate the activity that is covered by this incidental take statement. If Caltrans (1) fails to require the applicant or any of its contractors to adhere to the terms and conditions of the incidental take statement through enforceable terms, and/or (2) fails to retain oversight to ensure compliance with these terms and conditions, the protective coverage of section 7(o)(2) may lapse.

Amount or Extent of Take

California Tiger Salamander

The Service anticipates that incidental take of the central California tiger salamander will not be possible to quantify for the following reasons: the species is secretive in nature; it is relatively

small in size, particularly in its larval form; its dependence on weather and time of the year, and its activity patterns make the finding of a dead individual unlikely; losses may be masked by seasonal fluctuations in their numbers; and the species occurs in habitat types that make it difficult to find. Thus, the Service cannot quantify the specific number of central California tiger salamanders that are anticipated to be taken as a result of the proposed action. In instances when take calculations cannot be produced, the Service may quantify take in numbers of acres of permanently lost or degraded habitat; since take is expected to result from these impacts to habitat, the quantification of acreage becomes a direct surrogate for the species that will be taken. The Service therefore anticipates take incidental to the project as all those central California tiger salamanders that will be unable to breed in the 0.18 ac of eliminated and disturbed ephemeral aquatic habitat, in addition to its lost future reproductive generation; and all larvae that are present in the event that construction begins while there is still pool inundation. The Service also anticipates take incidental to the project as all central California tiger salamanders inhabiting 5.12 ac of upland refugia habitat that will be permanently lost and temporarily disturbed. Upon implementation of the following *Reasonable and Prudent Measures*, incidental take associated with the project in the form of harm, harassment, injury to, or mortality of the central California tiger salamander stemming from the filling, grading, excavation, paving, and ultimate loss of its ephemeral breeding and upland habitat, the risk of entombment and crushing arising from realignment and bridge replacement construction activities as well as from equipment and vehicle presence, and the risk of falling into and becoming trapped in construction trenches and being crushed by personnel and equipment above the surface following rain events leading to inundation, will become exempt from the prohibitions described under section 9 of the Act.

Vernal Pool Fairy Shrimp

The Service anticipates that incidental take of the vernal pool fairy shrimp will not be possible to quantify for the following reasons: the species has a very small body size, thereby making the discovery of a dead individual unlikely; it occurs in a habitat-type that makes detection difficult; and losses may be masked by seasonal and annual fluctuations in numbers, chance events, changes in water regime, or other environmental disturbances. Thus, the Service cannot quantify the specific number of vernal pool fairy shrimp cysts in any given pool that are anticipated to be taken as a result of the proposed action. In instances when take calculations cannot be produced, the Service may quantify take in numbers of acres of permanently lost or degraded habitat; since take is expected to result from these impacts to habitat, the quantification of acreage becomes a direct surrogate for the species that will be taken. The Service therefore anticipates take incidental to the project as all vernal pool fairy shrimp cysts present in a total of 0.18 ac that will be permanently lost through construction activities, in addition to all hatched individuals that are present if construction begins while there is still pool inundation. Upon implementation of the following *Reasonable and Prudent Measures*, incidental take associated with the project in the form of mortality of the vernal pool fairy shrimp stemming from the filling, grading, excavation, paving, and loss of its vernal pool habitat, will become exempt from the prohibitions described under section 9 of the Act.

Effect of Take

The Service has determined that this level of anticipated take is not likely to jeopardize the continued existence of the central California tiger salamander and the vernal pool fairy shrimp.

Reasonable and Prudent Measures

The following reasonable and prudent measures are necessary and appropriate to minimize the impact of the Sandstone Creek Curve Correction Project on the central California tiger salamander and vernal pool fairy shrimp.

1. All of the conservation measures proposed in the BA, the *Description of the Proposed Action*, and as augmented and modified below, must be fully implemented.
2. Although construction is anticipated to take place during the dry season window, in the event that the schedule requires an earlier start time or later completion time and significant rain events result in ponding and subsequent species' overland movement, a Service-approved biologist must be on-site to conduct monitoring in order to minimize the potential for take of the California tiger salamander from entrapment in construction trenches or being crushed by personnel and moving equipment.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the Act, Caltrans, as well as any contractor acting on its behalf, must comply with the following terms and conditions, which implement the Reasonable and Prudent Measures described above. These terms and conditions are nondiscretionary.

The following Terms and Conditions implement Reasonable and Prudent Measure one:

1. Caltrans shall be responsible for implementing all measures described in this biological opinion. Terms and conditions, such as 2.b., that apply to contractor activities shall be conditioned in contracts for the work.
2. In order to monitor whether the amount or extent of incidental take anticipated from implementation of the project is approached or exceeded, Caltrans shall adhere to the following reporting requirements. Should this anticipated amount or extent of incidental take be exceeded, Caltrans must immediately reinstitute formal consultation as per 50 CFR 402.16.
 - a. For those components of the action that will result in habitat degradation or modification whereby incidental take in the form of harm is anticipated, Caltrans will provide weekly updates to the Service with a precise accounting of the total acreage of habitat impacted. Updates shall also include any information about changes in project implementation that result in habitat disturbance not described

in the *Description of the Proposed Action* and not analyzed in this biological opinion.

- b. For those components of the action that may result in direct encounters between listed species and project workers and their equipment whereby incidental take in the form of harassment, harm, injury, or death is anticipated, Caltrans shall immediately contact the Service's Sacramento Fish and Wildlife Office (SFWO) at (916) 414-6600 to report the encounter. If an encounter occurs after normal working hours, Caltrans shall contact the SFWO at the earliest possible opportunity the next working day. When injured or killed individuals of the listed species are found, Caltrans shall follow the steps outlined in the *Salvage and Disposition of Individuals* section below.
- c. Before construction starts on this project, the Service shall be provided with the final documents recording protection of conservation acres through proof of purchase of conservation bank credits.
- d. A post-construction report detailing compliance with the project design criteria described under the *Description of the Proposed Action* section of this biological opinion shall be provided to the Service within 30 calendar days of completion of the project. The report shall include: (1) dates of project groundbreaking and completion; (2) pertinent information concerning the success of the project in meeting compensation and other conservation measures; (3) an explanation of failure to meet such measures, if any; (4) known project effects on the central California tiger salamander and vernal pool fairy shrimp, if any; (5) observed instances of incidental take of the central California tiger salamander and vernal pool fairy shrimp; and (6) any other pertinent information.
- e. New sightings of the central California tiger salamander and vernal pool fairy shrimp or any other listed or sensitive animal species shall be reported to the CNDDDB. A copy of the reporting form and a topographic map clearly marked with the location in which the animals were observed also shall be provided to the Service.

The following Terms and Conditions implement Reasonable and Prudent Measure two:

1. A Service-approved biologist shall be on-site following all rain events for as long as pools retain ponded water, as well as during site preparation that removes upland habitat for the central California tiger salamander when the species could be unearthed from upland refugia by construction activities. The qualifications of the biologist(s) shall be presented to the Service for review and approval at least seven calendar days prior to any groundbreaking at the project site.
 - a. Qualified individuals shall have completed a course of study in a college or university leading to a Bachelor of Science, or Bachelor of Arts, or equivalent, or higher degree, in a relevant biological field. Individuals shall have

demonstrated experience with construction monitoring, habitat assessment, surveying and monitoring for the listed species discussed in this biological opinion, and shall also demonstrate a positive track record of agency coordination and comprehensive reporting practices.

- b. Only a Service-approved biologist with a valid take permit pursuant to Section 10(a)(1)(A) of the Act will have the authority to handle and/or capture any central California tiger salamanders in the action area.
2. In the case of significant rainfall events resulting in pool inundation, the Service-approved biologist(s) shall check for the central California tiger salamander in all excavated steep-walled holes or trenches greater than six inches deep. Preconstruction awareness training shall include training of construction personnel to carry out these species checks.
 - a. To prevent inadvertent entrapment of the central California tiger salamander during construction, all excavated, steep-walled holes or trenches shall be covered by construction personnel at the close of the working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals. If at any time a trapped species is discovered, the Service-approved biologist(s) shall immediately place escape ramps or other appropriate structures to allow the animal to escape.

Salvage and Disposition of Individuals

In the case of injured and/or dead central California tiger salamanders, the Service shall be notified within one day and the animals shall only be handled by a Service-approved, permitted biologist. Injured central California tiger salamanders shall be cared for by a licensed veterinarian or other qualified person. In the case of a dead animal, the individual animal shall be preserved, as appropriate; the animal shall be bagged and labeled (i.e. species type; who found or reported the incident; when the report was made; when and where the incident occurred; and if possible, cause of death). Individuals shall be held in a secure location, such as a freezer or cooler, until instructions are received from the Service regarding the disposition of the specimen or until the Service, or another appropriate agency or qualified person, takes custody of the specimen. Caltrans must report to the Service within one calendar day any information about take or suspected take of federally-listed species not authorized in this opinion. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal. The Service contacts are Daniel Russell, Deputy Assistant Field Supervisor, Endangered Species Program, Sacramento, at (916) 414-6600 and Daniel Crum, the Resident Agent-in-Charge of the Service's Law Enforcement Division at (916) 414-6660.

Any contractor or employee who, during routine operations and maintenance activities inadvertently kills or injures a listed species must immediately report the incident to his

representative at his contracting/employment firm or to Caltrans. This representative must contact the Service within one calendar day.

CONSERVATION RECOMMENDATIONS

Conservation recommendations are suggestions of the Service regarding discretionary measures to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, or regarding the development of new information. These measures may serve to minimize or avoid further adverse effects of a proposed action on listed, proposed, or candidate species, or on designated critical habitat. They may also serve as suggestions on how action agencies can assist species conservation in furtherance of their responsibilities under section 7(a)(1) of the Act, or recommend studies improving an understanding of a species' biology or ecology. Wherever possible, conservation recommendations should be tied to tasks identified in recovery plans. The Service is providing you with the following conservation recommendations:

There are no conservation recommendations for this project.

REINITIATION—CLOSING STATEMENT

This concludes the Service's review of the Sandstone Creek Curve Correction 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; (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; or (4) a new species is listed or critical habitat designated that may be affected by the action.

If you have any questions regarding this biological opinion, please contact Jen Schofield or Thomas Leeman, San Joaquin Valley Division Chief, at the letterhead address or at telephone (916) 414-6600.

Sincerely,



Susan K. Moore
Field Supervisor

cc:

Dan Gifford, California Department of Fish and Game, Rancho Cordova, California

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Jan. 22, 2013

Date

Anissa Brown
California Department of Transportation
855 M Street, Suite 200
Fresno, CA 93721

Subject: Final Lake or Streambed Alteration Agreement
Notification No. 1600-2012-0103-R2
Sandstone Creek

Dear Ms. Brown:

Enclosed is the final Streambed Alteration Agreement (Agreement) for the SR 26 Sandstone Creek Curve Correction Project (Project). Before the California Department of Fish and Wildlife (Department) may issue an Agreement, it must comply with the California Environmental Quality Act (CEQA). In this case, the Department, acting as a responsible agency, filed a notice of determination (NOD) on the same date it signed the Agreement. The NOD was based on information contained in the Mitigated Negative Declaration the lead agency prepared for the Project.

Under CEQA, filing a NOD starts a 30-day period within which a party may challenge the filing agency's approval of the project. You may begin your project before the 30-day period expires if you have obtained all necessary local, state, and federal permits or other authorizations. However, if you elect to do so, it will be at your own risk.

If you have any questions regarding this matter, please contact Tim Nosal, Environmental Scientist at (916) 358-2853 or Tim.Nosal@wildlife.ca.gov.

Sincerely,

Tina Bartlett
Regional Manager

ec: Tim Nosal, Environmental Scientist
Tim.Nosal@wildlife.ca.gov

CALIFORNIA DEPARTMENT OF FISH AND GAME
NORTH CENTRAL REGION
1701 NIMBUS ROAD, SUITE A
RANCHO CORDOVA, CA 95670



STREAMBED ALTERATION AGREEMENT
NOTIFICATION No. 1600-2012-0103-R2
Sandstone Creek

California Department of Transportation
SR 26 SANDSTONE CREEK CURVE CORRECTION PROJECT

This Streambed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Game (DFG) and California Department of Transportation (Caltrans) (Permittee) as represented by Anissa Brown.

RECITALS

WHEREAS, pursuant to Fish and Game Code (FGC) section 1602, Permittee notified DFG on May 30, 2012 that Permittee intends to complete the project described herein.

WHEREAS, pursuant to FGC section 1603, DFG has determined that the project could substantially adversely affect existing fish or wildlife resources and has included measures in the Agreement necessary to protect those resources.

WHEREAS, Permittee has reviewed the Agreement and accepts its terms and conditions, including the measures to protect fish and wildlife resources.

NOW THEREFORE, Permittee agrees to complete the project in accordance with the Agreement.

PROJECT LOCATION

The project is located along State Route 26 at Sandstone Creek – a seasonal tributary to Calaveras River, in the County of San Joaquin, State of California; Latitude 38.0822, Longitude -120.0675 or Section 20, Township 3N, Range 10 E, U.S. Geological Survey (USGS) map Valley Springs, Mount Diablo base and meridian.

PROJECT DESCRIPTION

The California Department of Transportation (Caltrans) proposes to realign two existing curves and replace the Sandstone Creek Bridge with a triple box culvert along State Route (SR) 26 from post mile (PM) 18.5 to PM 19.0 in San Joaquin County (see Figure 2). A temporary detour will be provided as part of this project for constructability reasons. The detour will be built on the south side of the existing alignment and cross

the creek utilizing the existing bridge. The curve realignment will include the construction of new embankments with standard side slopes. Drainage ditches and three reinforced concrete pipe culverts along with rock slope protection will be installed along the highway. The proposed work includes the following:

- ▶ Removal of existing bridge
- ▶ Replace existing bridge structures with 7' x 3' triple-box culvert
- ▶ Temporary diversion of creek (if necessary)
- ▶ Putting in place of SWPPP measures and water pollution BMPs
- ▶ Construction of a temporary road to re-route traffic during construction
- ▶ Re-construction of SR 26 from PM 18.5 to PM 19.0 with curve realignment including the construction of new embankments with standard side slopes

A detailed project description is provided in the notification materials submitted to DFG. The notification, together with all supporting documents submitted with the notification;

- "Initial Study with Mitigated Negative Declaration (10-SJ-26-18.5-19) 10-OT160" dated January 2012;
- Project Report, On: Route 28, From: 0.3 mile West of Sandstone Creek Bridge, To: Shelly Road. 10-SJ-26-PM 18.5/19.0. Dated January 23, 2012;
- Biological Assessment, Sandstone Creek Curve Correction Project on State Route 26, East of Stockton in San Joaquin County, California. 10-SJ-PM 18.5 to 19.0, 10-OT1600. Dated May, 2011;
- Biological Opinion for the Sandstone Creek Curve Correction Project (File #81420-2011-F-0576-1), San Joaquin County, California (California Department of Transportation EA 10-OT1600, 10-SJ-PM 18.5-19.0), Dated January 18, 2012;
- Project Plans for Construction on State Highway in San Joaquin County near Bellota from 0.3 Mile West of Sandstone Creek Bridge to Shelly Road (3 pages), dated July 2, 2010;
- "Project Report Cost Estimate: 10-SJ-26 PM 18.5-19.0, EA: 10-OT1600, dated October 26, 2011;
- Preliminary Wetland Delineation Report – Verification Request (State Route 26, San Joaquin County, California, Shelley Curve Correction Project, EA# 10-0E3700, Wimer Curve Correction Project, EA# 10-0E3800)" dated August 3, 2005; and
- Fitzgerald Ranch Conservation Bank, Service Area Map and Information, dated 2010,

are hereby incorporated into this agreement to describe the location, features, avoidance measures and mitigation measures of the proposed project.

PROJECT IMPACTS

Existing fish or wildlife resources the project could substantially adversely affect include: vernal pools and other seasonal wetlands, vernal pool fairy shrimp (federal threatened),

vernal pool tadpole shrimp (federal endangered), California tiger salamander (federal threatened, state threatened), nesting migratory birds, amphibians, and other aquatic and terrestrial plant and wildlife species.

The adverse effects the project could have on the fish or wildlife resources identified above include: loss of natural bed or bank; loss or decline of wetland habitat; change in contour of bed, channel or bank; soil compaction or other disturbance; change in turbidity; increased sedimentation from adjacent construction; short-term release of sediment (e.g. incidental from construction); decline of vegetative diversity; construction pits and trenches that can capture terrestrial organisms; disruption to nesting birds and other wildlife: disturbance from project activity; loss or impediment of terrestrial animal species travel routes due to temporary structures such as survey tape, sandbags, erosion protection materials etc.; dewatering; flow deflection; change in fluvial geomorphology; impediment to migration of aquatic and terrestrial species; and direct (seasonal) loss of resources for aquatic organisms.

MEASURES TO PROTECT FISH AND WILDLIFE RESOURCES

1. Administrative Measures

Permittee shall meet each administrative requirement described below.

- 1.1 **Documentation at Project Site.** Permittee shall make the Agreement, any extensions and amendments to the Agreement, and all related notification materials and California Environmental Quality Act (CEQA) documents, readily available at the project site at all times and shall be presented to DFG personnel, or personnel from another state, federal, or local agency upon request.
- 1.2 **Providing Agreement to Persons at Project Site.** Permittee shall provide copies of the Agreement and any extensions and amendments to the Agreement to all persons who will be working on the project at the project site on behalf of Permittee, including but not limited to contractors, subcontractors, inspectors, and monitors.
- 1.3 **Notification of Conflicting Provisions.** Permittee shall notify DFG if Permittee determines or learns that a provision in the Agreement might conflict with a provision imposed on the project by another local, state, or federal agency. In that event, DFG shall contact Permittee to resolve any conflict.
- 1.4 **Project Site Entry.** Permittee agrees that DFG personnel may enter the project site at any time to verify compliance with the Agreement.
- 1.5 **Authorized Work.** The notification, together with all supporting documents submitted with the notification, is hereby incorporated into this agreement to describe the location and features of the proposed project. The Permittee agrees

that all work shall be done as described in the notification and supporting documents, incorporating all project modifications, wildlife resource protection features, mitigation measures, and provisions as described in this agreement. Where apparent conflicts exist between the notification and the provisions listed in this agreement, the Permittee shall comply with the provisions listed in this agreement. The Permittee further agrees to notify DFG of any modifications made to the project plans submitted to DFG. At the discretion of DFG, this agreement will be amended to accommodate modifications to the project plans submitted to DFG and/or new project activities.

2. Avoidance and Minimization Measures

To avoid or minimize adverse impacts to fish and wildlife resources identified above, Permittee shall implement each measure listed below.

- 2.1 **CEQA Compliance.** Permittee shall implement and adhere to the mitigation measures in the Biological Resources section of the Mitigated Negative Declaration (SCH Number: 2011042021) adopted by the lead agency, Caltrans, for the Project pursuant to the California Environmental Quality Act (CEQA) on January 20, 2012 unless those mitigation measures are less protective of fish and wildlife or conflict with the conditions of this Agreement.
- 2.2 **ESA Compliance.** Permittee shall implement and adhere to the terms, conditions, and avoidance and conservation measures in the Biological Opinion prepared by the U.S. Fish and Wildlife Service (File #81420-2011-F-0576-1), unless those terms and conditions are less protective of fish and wildlife or conflict with the conditions of this Agreement.
- 2.3 **Work Period.** The time period for completing the work within the stream zone shall be restricted to periods of low stream flow and dry weather and shall be confined to the period of June 15 to October 15. Construction activities shall be timed with awareness of precipitation forecasts and likely increases in stream flow. Construction activities within the stream zone shall cease until all reasonable erosion control measures, inside and outside of the stream zone, have been implemented prior to all storm events. Revegetation, restoration and erosion control work is not confined to this time period.
- 2.4 **Work Period Extensions.** At DFG's discretion, the work period may be extended based on the extent of the work remaining, on site conditions and reasonably anticipated future conditions. If the Permittee finds more time is needed to complete the authorized activity, the Permittee shall submit a written request for a work period time extension to DFG. The work period extension request shall provide the following information: 1) Describe the extent of work already completed; 2) Provide specific detail of the activities that remain to be completed within the stream zone; and 3) Detail the actual time required to complete each of

the remaining activities within the stream zone. The work period extension request should consider the effects of increased stream conditions, rain delays, increased erosion control measures, limited access due to saturated soil conditions, and limited growth of erosion control grasses due to cool weather. Photographs of the work completed and the proposed work areas are helpful in assisting DFG in its evaluation. Time extensions are issued at the discretion of DFG. DFG will have ten calendar days to approve the proposed work period extension. DFG reserves the right to require additional measures designed to protect natural resources.

- 2.5 **Stream Diversions / Dewatering.** If work in the flowing portion of the stream is unavoidable, the entire stream flow shall be diverted around or through the work area during the excavation and/or construction operations. Stream flow shall be diverted using gravity flow through temporary culverts/pipes or pumped around the work site with the use of hoses. When any dam or other artificial obstruction is being constructed, maintained, or placed in operation, sufficient water shall at all times be allowed to pass downstream to maintain aquatic life below the dam pursuant to Fish and Game Code section 5937. Any temporary dam or other artificial obstruction constructed shall only be built from clean materials such as sandbags, gravel bags, water dams, or clean/washed gravel which will cause little or no siltation.
- 2.6 **Bird Nests.** It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird except as otherwise provided by the Fish and Game Code. No trees that contain active nests of birds shall be disturbed until all eggs have hatched and young birds have fledged without prior consultation and approval of a Department representative.
- 2.7 **Special Status Plants** Should a special status plant species [as per CEQA sections 15380 and 15125 (c)] be discovered before or during the life of the project, a 25-foot no-operations buffer shall be flagged around the area and the CDFG shall be immediately notified. Consultation with the CDFG shall ensure that potential impacts are avoided or minimized, and that project activities do not inhibit long-term conservation efforts for the survival of special status plant species.
- 2.8 **Pollution Control.** Utilize Best Management Practices (BMPs) to prevent spills and leaks into water bodies. If maintenance or refueling of vehicles or equipment must occur on-site, use a designated area and/or a secondary containment, located away from drainage courses to prevent the runoff of storm water and the runoff of spills. Ensure that all vehicles and equipment are in good working order (no leaks). Place drip pans or absorbent materials under vehicles and equipment when not in use. Ensure that all construction areas have proper spill clean up materials (absorbent pads, sealed containers, booms, etc.) to contain the movement of any spilled substances. Any other substances which could be hazardous to aquatic life, resulting from project related activities, shall be prevented from contaminating the soil and/or entering the waters of the state. Any

of these materials, placed within or where they may enter a stream or lake by the Applicant or any party working under contract or with the permission of the Permittee, shall be removed immediately. DFG shall be notified immediately by the Permittee of any spills and shall be consulted regarding clean-up procedures.

3. Compensatory Measures

To compensate for adverse impacts to fish and wildlife resources identified above that cannot be avoided or minimized, Permittee shall implement each measure listed below.

- 3.1 **Habitat Restoration.** All temporarily impacted areas and access points within the stream zone shall be restored to their original condition, as outlined in the Revegetation Plan. Seeded areas shall be covered with broadcast straw and/or a biodegradable erosion control blankets such as jute. Erosion control materials not noted here shall be submitted to DFG for approval prior to use
- 3.2 **Soil Restoration.** Soils impacted by project activity, within areas identified for vegetation re-establishment, shall be restored to suitable planting conditions under the direction of a qualified revegetation specialist. This condition applies where restoration efforts will not impact essential structural attributes of the soil.
- 3.3 **Mitigation Measures:** The Permittee shall follow all mitigation measures outlined in the Mitigated Negative Declaration, the Biological Opinion and other supporting documents noted in the Project Description (page 2 of this agreement).

4. Reporting Measures

Permittee shall meet each reporting requirement described below.

- 4.1 The Permittee shall notify DFG within two working days of beginning work within the stream zone of Sandstone Creek. Notification shall be submitted as instructed in Contact Information section below. Email notification is preferred.
- 4.2 Upon completion of the project activities described in this agreement, the work area within the stream zone shall be digitally photographed. Photographs shall be submitted to DFG within two days of completion. Photographs and project commencement notification shall be submitted as instructed in Contact Information section below. Email submittal is preferred.

CONTACT INFORMATION

Any communication that Permittee or DFG submits to the other shall be in writing and any communication or documentation shall be delivered to the address below by U.S. mail, fax, or email, or to such other address as Permittee or DFG specifies by written notice to the other.

To Permittee:

Anissa Brown
California Department of Transportation
855 M Street, Suite 200
Fresno, CA 93721
Fax - (559) 445-6236
Anissa_brown@dot.ca.gov

To DFG:

Department of Fish and Game
North Central Region
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670
Attn: Lake and Streambed Alteration Program – Tim Nosal
Notification #1600-2012-0103 R2

Fax: 916-358-2912
Email: r2lsa@dfg.ca.gov

LIABILITY

Permittee shall be solely liable for any violations of the Agreement, whether committed by Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents or contractors and subcontractors, to complete the project or any activity related to it that the Agreement authorizes.

This Agreement does not constitute DFG's endorsement of, or require Permittee to proceed with the project. The decision to proceed with the project is Permittee's alone.

SUSPENSION AND REVOCATION

DFG may suspend or revoke in its entirety the Agreement if it determines that Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, is not in compliance with the Agreement.

Before DFG suspends or revokes the Agreement, it shall provide Permittee written notice by certified or registered mail that it intends to suspend or revoke. The notice shall state the reason(s) for the proposed suspension or revocation, provide Permittee an opportunity to correct any deficiency before DFG suspends or revokes the Agreement, and include instructions to Permittee, if necessary, including but not limited to a directive to immediately cease the specific activity or activities that caused DFG to issue the notice.

ENFORCEMENT

Nothing in the Agreement precludes DFG from pursuing an enforcement action against Permittee instead of, or in addition to, suspending or revoking the Agreement.

Nothing in the Agreement limits or otherwise affects DFG's enforcement authority or that of its enforcement personnel.

OTHER LEGAL OBLIGATIONS

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from obtaining any other permits or authorizations that might be required under other federal, state, or local laws or regulations before beginning the project or an activity related to it.

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with other applicable statutes in the FGC including, but not limited to, FGC sections 2050 et seq. (threatened and endangered species), 3503 (*bird nests and eggs*), 3503.5 (*birds of prey*), 5650 (*water pollution*), 5652 (*refuse disposal into water*), 5901 (*fish passage*), 5937 (*sufficient water for fish*), and 5948 (*obstruction of stream*).

Nothing in the Agreement authorizes Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, to trespass.

AMENDMENT

DFG may amend the Agreement at any time during its term if DFG determines the amendment is necessary to protect an existing fish or wildlife resource.

Permittee may amend the Agreement at any time during its term, provided the amendment is mutually agreed to in writing by DFG and Permittee. To request an amendment, Permittee shall submit to DFG a completed DFG "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the corresponding amendment fee identified in DFG's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

TRANSFER AND ASSIGNMENT

This Agreement may not be transferred or assigned to another entity, and any purported transfer or assignment of the Agreement to another entity shall not be valid or effective,

unless the transfer or assignment is requested by Permittee in writing, as specified below, and thereafter DFG approves the transfer or assignment in writing.

The transfer or assignment of the Agreement to another entity shall constitute a minor amendment, and therefore to request a transfer or assignment, Permittee shall submit to DFG a completed DFG "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the minor amendment fee identified in DFG's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

EXTENSIONS

In accordance with FGC section 1605(b), Permittee may request one extension of the Agreement, provided the request is made prior to the expiration of the Agreement's term. To request an extension, Permittee shall submit to DFG a completed DFG "Request to Extend Lake or Streambed Alteration" form and include with the completed form payment of the extension fee identified in DFG's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5). DFG shall process the extension request in accordance with FGC 1605(b) through (e).

If Permittee fails to submit a request to extend the Agreement prior to its expiration, Permittee must submit a new notification and notification fee before beginning or continuing the project the Agreement covers (Fish & G. Code, § 1605, subd. (f)).

EFFECTIVE DATE

The Agreement becomes effective on the date of DFG's signature, which shall be: 1) after Permittee's signature; 2) after DFG complies with all applicable requirements under the California Environmental Quality Act (CEQA); and 3) after payment of the applicable FGC section 711.4 filing fee listed at http://www.dfg.ca.gov/habcon/ceqa/ceqa_changes.html.

TERM

This Agreement shall expire on June 15, 2017, unless it is terminated or extended before then. All provisions in the Agreement shall remain in force throughout its term. Permittee shall remain responsible for implementing any provisions specified herein to protect fish and wildlife resources after the Agreement expires or is terminated, as FGC section 1605(a)(2) requires.

EXHIBITS

Attachment A: Maps –
Project Vicinity Map (Figure 1)
Project Location Map (Figure 2)
Impacts to Vernal Pool Habitat

Impacts to California Tiger Salamander Habitat

AUTHORITY

If the person signing the Agreement (signatory) is doing so as a representative of Permittee, the signatory hereby acknowledges that he or she is doing so on Permittee's behalf and represents and warrants that he or she has the authority to legally bind Permittee to the provisions herein.

AUTHORIZATION

This Agreement authorizes only the project described herein. If Permittee begins or completes a project different from the project the Agreement authorizes, Permittee may be subject to civil or criminal prosecution for failing to notify DFG in accordance with FGC section 1602.

CONCURRENCE

The undersigned accepts and agrees to comply with all provisions contained herein.

FOR CALTRANS



~~Anissa Brown~~ FRANK MERAZ
Branch Chief (Acting)

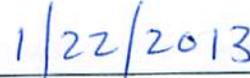


Date

FOR DEPARTMENT OF FISH AND GAME



~~Kent Smith~~ TINA BARTLETT
Regional Manager



Date

Prepared by: Tim Nosal
Environmental Scientist

Central Valley Regional Water Quality Control Board

19 April 2013

Anissa Brown
California Department of Transportation
855 M Street, Suite 200
Fresno, CA 93720

CERTIFIED MAIL
7012 2210 0002 1419 9364

***CLEAN WATER ACT §401 TECHNICALLY CONDITIONED WATER QUALITY
CERTIFICATION; CALIFORNIA DEPARTMENT OF TRANSPORTATION, SANDSTONE
CREEK CURVE CORRECTION PROJECT (WDID#5B39CR00214),
SAN JOAQUIN COUNTY***

This Order responds to the 30 May 2012 application submitted by the California Department of Transportation (Applicant) for the Water Quality Certification of a curve realignment project permanently impacting 0.261 acre and temporarily impacting 0.045 acre of waters of the United States.

This Order serves as certification of the United States Army Corps of Engineers' Nationwide Permit# 14 (SPK# 2005-00788) under § 401 of the Clean Water Act, and a Waste Discharge Requirement under the Porter-Cologne Water Quality Control Act.

WATER QUALITY CERTIFICATION STANDARD CONDITIONS:

1. This Order serves as a Water Quality Certification (Certification) action that is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to § 13330 of the California Water Code and § 3867 of the California Code of Regulations.
2. This Certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent Certification application was filed pursuant to § 3855(b) of the California Code of Regulations, and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
3. The validity of any non-denial Certification action shall be conditioned upon total payment of the full fee required under § 3860(c) of the California Code of Regulations.

4. This Certification is no longer valid if the project (as described) is modified, or coverage under § 404 of the Clean Water Act has expired.
5. All reports, notices, or other documents required by this Certification or requested by the Central Valley Regional Water Quality Control Board (Central Valley Water Board) shall be signed by a person described below or by a duly authorized representative of that person.
 - (a) For a corporation: by a responsible corporate officer such as (1) a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function; (2) any other person who performs similar policy or decision-making functions for the corporation; or (3) the manager of one or more manufacturing, production, or operating facilities if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 - (b) For a partnership or sole proprietorship: by a general partner or the proprietor.
 - (c) For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official.
6. Any person signing a document under Standard Condition number 5 shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

TECHNICAL CERTIFICATION CONDITIONS:

In addition to the above standard conditions, the Applicant shall satisfy the following:

1. The Applicant shall notify the Central Valley Water Board in writing seven (7) days in advance of the start of any work within waters of the United States. The notification shall include the name of the project and the WDID number, and shall be sent to the Central Valley Water Board Contact indicated in this Certification.
2. Except for activities permitted by the United States Army Corps of Engineers under § 404 of the Clean Water Act, soil, silt, or other organic materials shall not be placed where such materials could pass into surface water or surface water drainage courses.

3. The Applicant shall maintain a copy of this Certification and supporting documentation (Project Information Sheet) at the Project site during construction for review by site personnel and agencies. All personnel (employees, contractors, and subcontractors) performing work on the proposed project shall be adequately informed and trained regarding the conditions of this Certification.
4. The Applicant shall perform surface water sampling:
 - a) when performing any in-water work;
 - b) in the event that project activities result in any materials reaching surface waters; or
 - c) when any activities result in the creation of a visible plume in surface waters. The monitoring requirements in Table 1 shall be conducted upstream out of the influence of the project, and 300 feet downstream of the work area. The sampling frequency may be modified for certain projects with written approval from Central Valley Water Board staff.

Table 1:

Parameter	Unit	Type of Sample	Minimum Sampling Frequency	Required Analytical Test Method
Turbidity	NTU	Grab ⁽¹⁾	Every 4 hours during in-water work	(2)
Settleable Material	mL/L	Grab ⁽¹⁾	Every 4 hours during in-water work	(2)
Visible construction related pollutants ⁽³⁾	Observations	Visual Inspections	Continuous throughout the construction period	—
pH	Standard Units	Grab ⁽¹⁾	Every 4 hours during in-water work	(2)

⁽¹⁾ Grab samples shall not be collected at the same time each day to get a complete representation of variations in the receiving water.

⁽²⁾ Pollutants shall be analyzed using the analytical methods described in 40 Code of Federal Regulations Part 136; where no methods are specified for a given pollutant, the method shall be approved by Central Valley Water Board staff.

⁽³⁾ Visible construction-related pollutants include oil, grease, foam, fuel, petroleum products, and construction-related, excavated, organic or earthen materials.

A surface water monitoring report shall be submitted to the Central Valley Water Board Contact indicated in this Certification within two weeks of initiation of sampling and every two weeks thereafter. In reporting the monitoring data, the Applicant shall arrange the data in tabular form so that the sampling locations, date, constituents, and concentrations are readily discernible. The data shall be summarized in such a manner to illustrate clearly whether the project complies with Certification requirements. The report shall include surface water sampling results, visual observations, and identification of the turbidity increase in the receiving water applicable to the natural turbidity conditions specified in the turbidity criteria below.

If no monitoring is conducted, the Applicant shall submit a written statement to the Central Valley Water Board Contact indicated in the Certification stating, "No monitoring was required."

5. The Central Valley Water Board adopted a *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins*, Fourth Edition, revised October 2011 (Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Turbidity, settleable matter limits are based on water quality objectives contained in the Basin Plan and are part of this Certification as follows:

- a) Activities shall not cause turbidity increases in surface water to exceed:
 - i. where natural turbidity is less than 1 Nephelometric Turbidity Units (NTUs), controllable factors shall not cause downstream turbidity to exceed 2 NTUs;
 - ii. where natural turbidity is between 1 and 5 NTUs, increases shall not exceed 1 NTU;
 - iii. where natural turbidity is between 5 and 50 NTUs, increases shall not exceed 20 percent;
 - iv. where natural turbidity is between 50 and 100 NTUs, increases shall not exceed 10 NTUs; and
 - v. where natural turbidity is greater than 100 NTUs, increases shall not exceed 10 percent.

Except that these limits will be eased during in-water working periods to allow a turbidity increase of 15 NTUs over background turbidity. In determining compliance with the above limits, appropriate averaging periods may be applied provided that beneficial uses will be fully protected. Averaging periods may only be used with prior approval of the Central Valley Water Board staff.

- b) Activities shall not cause settleable matter to exceed 0.1 mL/L in surface waters as measured in surface waters within 300 feet downstream of the project.
 - c) Activities shall not cause pH to be depressed below 6.5 nor raised above 8.5 in surface water.
6. The Applicant shall notify the Central Valley Water Board immediately if the above criteria for turbidity, settleable matter, pH, or other water quality objectives are exceeded.
7. In-water work shall occur during periods of low flow and no precipitation.

8. Refueling of equipment within the floodplain or within 300 feet of the waterway is prohibited. If critical equipment must be refueled within 300 feet of the waterway, spill prevention and countermeasures must be implemented to avoid spills. Refueling areas shall be provided with secondary containment including drip pans and/or placement of absorbent material. No hazardous materials, pesticides, fuels, lubricants, oils, hydraulic fluids, or other construction-related potentially hazardous substances should be stored within a floodplain or within 300 feet of a waterway. The Applicant must perform frequent inspections of construction equipment prior to utilizing it near surface waters to ensure leaks from the equipment are not occurring and are not a threat to water quality.
9. The Applicant shall develop and maintain onsite a project-specific Spill Prevention, Containment and Cleanup Plan outlining the practices to prevent, minimize, and/or clean up potential spills during construction of the project. The Plan must detail the project elements, construction equipment types and location, access and staging and construction sequence. The Plan must also address the potential of responding to a spill or prevention of spills occurring within the project site.
10. Raw cement, concrete (or washing thereof), asphalt, drilling fluids, lubricants, paints, coating material, oil, petroleum products, or any other substances which could be hazardous to fish and wildlife resulting from or disturbed by project-related activities, shall be prevented from contaminating the soil and/or entering waters of the United States.
11. Concrete must completely be cured before coming into contact with waters of the United States. Surface water that contacts wet concrete must be pumped out and disposed of at an appropriate off-site commercial facility, which is authorized to accept concrete wastes.
12. A method of containment must be used below the bridge to prevent debris from falling into the water body through the entire duration of the project.
13. Silt fencing, straw wattles, or other effective management practices must be used along the construction zone to minimize soil or sediment along the embankments from migrating into the waters of the United States through the entire duration of the project.
14. The use of netting material (e.g., monofilament-based erosion blankets) that could trap aquatic dependent wildlife is prohibited within the project area, as indicated in the attached map (Figure 1).
15. All areas disturbed by project activities shall be protected from washout or erosion.
16. All temporarily affected areas shall be restored to pre-construction contours and conditions upon completion of construction activities.
17. All materials resulting from the project shall be removed from the site and disposed of properly.
18. This Certification does not allow permanent water diversion of flow from the receiving water. This Certification is invalid if any water is permanently diverted as a part of the project.

19. If temporary surface water diversions and/or dewatering are anticipated, the Applicant shall develop and maintain on-site a Surface Water Diversion and/or Dewatering Plan(s). The Plan(s) shall include the proposed method and duration of diversion activities. The Surface Water Diversion and/or Dewatering Plan(s) must be consistent with this Certification.
20. When work in a flowing stream is unavoidable and any dam or other artificial obstruction is being constructed, maintained, or placed in operation, sufficient water shall at all times be allowed to pass downstream, to maintain beneficial uses of waters of the State below the dam. Construction, dewatering, and removal of temporary cofferdams shall not violate Technical Certification Condition 5 of this Certification.
21. Any temporary dam or other artificial obstruction constructed shall only be built from clean materials such as sandbags, gravel bags, water dams, or clean/washed gravel which will cause little or no siltation. Stream flow shall be temporarily diverted using gravity flow through temporary culverts/pipes or pumped around the work site with the use of hoses.
22. The discharge of petroleum products or other excavated materials to surface water is prohibited. Activities shall not cause visible oil, grease, or foam in the receiving water. The Applicant shall notify the Central Valley Water Board immediately of any spill of petroleum products or other organic or earthen materials.
23. If unanticipated discharges to the waters of the United States and/or soil occur, the Applicant shall notify the Central Valley Water Board Contact indicated in this Certification in writing within five (5) calendar days of occurrence. Unanticipated discharges may include, but are not limited to, any construction materials, hazardous materials, pesticides, fuels, lubricants, oils, hydraulic fluids, raw cement, concrete, asphalt, paint, coating material, drilling fluids, or other construction-related potentially hazardous substances.
24. The Applicant shall comply with all California Department of Fish and Wildlife requirements, including but not limited to those requirements described in Lake or Streambed Alteration Agreement No. 1600-2012-0103-R2.
25. The Applicant shall comply with all United States Fish and Wildlife Service requirements, including but not limited to those requirements described in the Biological Opinion (81420-2011-F-0576), provided to the California Department of Transportation, dated 18 January 2012.
26. The Applicant shall obtain coverage under the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities Order No. 2009-0009-DWQ for discharges to surface waters comprised of storm water associated with construction activity, including, but not limited to, demolition, clearing, grading, excavation, and other land disturbance activities of one or more acres, or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres.

27. The Conditions in this Certification are based on the information in the attached "Project Information Sheet." If the actual project, as described in the attached Project Information Sheet, is modified or changed, this Certification is no longer valid until amended by the Central Valley Water Board.
28. The Applicant shall implement each of the mitigation measures specified in the approved Mitigated Negative Declaration for the project, as they pertain to biology, hydrology and water quality impacts as required by § 21081.6 of the Public Resource Code and § 15097 of the California Code of Regulations.
29. In the event of any violation or threatened violation of the conditions of this Certification, the violation or threatened violation shall be subject to any remedies, penalties, process, or sanctions as provided for under state and federal law. The applicability of any state law authorizing remedies, penalties, process, or sanctions for the violation or threatened violation constitutes a limitation necessary to ensure compliance with this Certification.
 - (a) If the Applicant or a duly authorized representative of the project fails or refuses to furnish technical or monitoring reports, as required under this Certification, or falsifies any information provided in the monitoring reports, the applicant is subject to civil liability, for each day of violation, and/or criminal liability.
 - (b) In response to a suspected violation of any condition of this Certification, the Central Valley Water Board may require the Applicant to furnish, under penalty of perjury, any technical or monitoring reports the Central Valley Water Board deems appropriate, provided that the burden, including cost of the reports, shall be in reasonable relationship to the need for the reports and the benefits to be obtained from the reports.
 - (c) The Applicant shall allow the staff(s) of the Central Valley Water Board, or an authorized representative(s), upon the presentation of credentials and other documents, as may be required by law, to enter the project premises for inspection, including taking photographs and securing copies of project-related records, for the purpose of assuring compliance with this Certification and determining the ecological success of the project.
30. The Applicant shall provide a Notice of Completion (NOC) no later than 30 days after the project completion. The NOC shall demonstrate that the project has been carried out in accordance with the project description in the Certification and in any amendments approved. The NOC shall include a map of the project location(s), including final boundaries of any on-site restoration area(s), if appropriate, and representative pre and post construction photographs. Each photograph shall include a descriptive title, date taken, photographic site, and photographic orientation.

31. The Applicant shall provide evidence of all on-site and off-site compensatory mitigation requirements, including, but not limited to, the payment of in-lieu fees as required by the United States Army Corps of Engineers prior to commencing construction to the Central Valley Water Board.

Compensatory mitigation must comply with the effective policy at the time of Certification, which ensures no overall net loss of wetlands for impacts to waters of the State.

Evidence of compliance with compensatory mitigation requirements include providing a letter from the National Fish and Wildlife Foundation. The letter must: (a) be on the National Fish and Wildlife Foundation letterhead; (b) be signed by an authorized representative of the National Fish and Wildlife Foundation; (c) indicate the United States Army Corps of Engineers' SPK number; (d) describe the project name and location; and (e) detail the type of in-lieu fees paid for the project's impacts.

CENTRAL VALLEY WATER BOARD CONTACT:

Trevor Cleak, Environmental Scientist
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670-8114
tcleak@waterboards.ca.gov
(916) 464-4684

CALIFORNIA ENVIRONMENTAL QUALITY ACT:

The California Department of Transportation is the Lead Agency responsible for compliance with the California Environmental Quality Act for the Sandstone Creek Curve Correction Project pursuant to § 21000 et seq. of the Public Resources Code. The California Department of Transportation approved the Mitigated Negative Declaration on 25 March 2011. The California Department of Transportation filed a Notice of Determination with the State Clearinghouse on 25 April 2012 (State Clearinghouse Number 2011042021).

The Central Valley Water Board is a responsible agency for the project. The Central Valley Water Board has determined that the Mitigated Negative Declaration is in accordance with the requirements of the California Environmental Quality Act.

The Central Valley Water Board has reviewed and evaluated the impacts to water quality identified in the Mitigated Negative Declaration. The mitigation measures discussed in the Mitigated Negative Declaration to minimize project impacts are required by this Certification.

With regard to the remaining impacts identified in the Mitigated Negative Declaration the corresponding mitigation measures proposed are within the responsibility and jurisdiction of other public agencies.

WATER QUALITY CERTIFICATION:

I hereby issue an Order certifying that any discharge from the California Department of Transportation, Sandstone Creek Curve Correction Project (WDID#5B39CR00214) will comply with the applicable provisions of § 301 ("Effluent Limitations"), § 302 ("Water Quality Related Effluent Limitations"), § 303 ("Water Quality Standards and Implementation Plans"), § 306 ("National Standards of Performance"), and § 307 ("Toxic and Pretreatment Effluent Standards") of the Clean Water Act. This discharge is also regulated under State Water Resources Control Board Water Quality Order No. 2003-0017 DWQ "Statewide General Waste Discharge Requirements For Dredged Or Fill Discharges That Have Received State Water Quality Certification (General WDRs)".

Except insofar as may be modified by any preceding conditions, all Certification actions are contingent on (a) the discharge being limited and all proposed mitigation being completed in compliance with the conditions of this Certification, the California Department of Transportation's application package, and the attached Project Information Sheet, and (b) compliance with all applicable requirements of the *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins*, Fourth Edition, revised October 2011.


Pamela C. Creedon
Executive Officer

Enclosure: Project Information

Attachment: Figure 1 – Project Location Map

cc: Distribution List, page 13

PROJECT INFORMATION SHEET

Application Date: 30 May 2012

Applicant: Anissa Brown
California Department of Transportation
855 M Street, Suite 200
Fresno, CA 93720

Project Name: Sandstone Creek Curve Correction Project

Application Number: WDID#5B39CR00214

Type of Project: Curve realignment project

Timeframe of Project Implementation: May 2013 through May 2014

Project Location: Section 20, Township 3 North, Range 10 East, MDB&M.
Latitude: 38°4'46.86"N and Longitude: 120°58'27.76" W

County: San Joaquin

Receiving Water(s) (hydrologic unit): Sandstone Creek, San Joaquin Hydrologic Basin,
North Valley Floor Hydrologic Unit #531.30, Lower Calaveras HSA

Water Body Type: Wetland, Streambed, Vernal Pools

Designated Beneficial Uses: The *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins*, Fourth Edition, revised October 2011 (Basin Plan) has designated beneficial uses for surface and ground waters within the region. Beneficial uses that could be impacted by the project include, but are not limited to: Municipal and Domestic Water Supply (MUN); Agricultural Supply (AGR); Industrial Supply (IND); Hydropower Generation (POW); Groundwater Recharge (GWR); Water Contact Recreation (REC-1); Non-Contact Water Recreation (REC-2); Warm Freshwater Habitat (WARM); Cold Freshwater Habitat (COLD); Preservation of Biological Habitats of Special Significance (BIOL); Rare, Threatened, or Endangered Species (RARE); Migration of Aquatic Organisms (MIGR); Spawning, Reproduction, and/or Early Development (SPWN); and Wildlife Habitat (WILD). A comprehensive and specific list of the beneficial uses applicable for the project area can be found at http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/index.shtml.

303(d) List of Water Quality Limited Segments: Sandstone Creek is the receiving water for the Sandstone Creek Curve Correction Project. Sandstone Creek is not listed on the 303(d) list. This project does not impact an already impaired water body. The most recent list of approved water quality limited segments is found at:
http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml

Project Description: The 5.8-acre Sandstone Creek Curve Correction Project is located along a 0.5-mile segment of State Route 26 between Shelley Road and Wimer Road in San Joaquin County.

The existing alignment within the project area consists of two lanes, approximately 10.5 feet in width, with no shoulders, located along the rural section of the highway. The following project activities will impact waters of the United States:

1. realigning the two existing road curves;
2. widening and relocating an approximately 22-foot wide existing road with a new 40-foot wide road;
3. constructing and removing an approximately 1,200-foot long by 24-foot wide paved temporary detour road;
4. replacing an approximately 27-foot long by 25-foot wide bridge with three culverts, with a new approximately 21-foot long by 84-foot wide cast-in-place concrete bridge with one culvert;
5. constructing approximately 3-feet wide by 1-foot deep storm water drainage ditches and bio swales; and
6. replacing five culverts as shown in the table below.

Length of Existing Culvert (feet)	Diameter of Existing Culvert (inches)	Number of Replacement Culverts	Length of Replacement Culvert (feet)	Diameter of Replacement Culvert (inches)
46	36	2	66	18
45	72	1	76	36
50	48	1	78	30
51	43	1	77	18

If flows are present, temporary flow diversions will occur. Wet concrete will be placed into waters of the United States. Native soil fill will be placed to construct the new roadway and temporary detour road. Construction equipment will enter waters of the United States. All other project activities such as relocating electric power poles and utilities will not impact waters of the United States.

The Sandstone Creek Curve Correction Project will permanently impact 0.261 acre and temporarily impact 0.045 acre of waters of the United States.

Preliminary Water Quality Concerns: Construction activities may impact surface waters with increased turbidity, settleable matter, and pH.

Proposed Mitigation to Address Concerns: The Applicant will implement Best Management Practices to control sedimentation and erosion. All temporary affected areas will be restored to pre-construction contours and conditions upon completion of construction activities. The Applicant will conduct turbidity, settleable matter, and pH testing during in-water work, stopping work if Basin Plan criteria are exceeded or are observed.

Excavation/Fill Area: Approximately 7,405 cubic yards of native soil will be placed into 0.261 acre of waters of the United States.

Dredge Volume: None

United States Army Corps of Engineers File Number: SPK #2005-00788

United States Army Corps of Engineers Permit Type: Nationwide Permit #14

California Department of Fish and Wildlife Lake or Streambed Alteration Agreement:
1600-2012-0103-R2

Possible Listed Species: Vernal pool fairy shrimp, California tiger salamander, and Vernal pool tadpole shrimp.

Status of CEQA Compliance: The California Department of Transportation approved a Mitigated Negative Declaration on 25 March 2011. The California Department of Transportation filed a Notice of Determination with the State Clearinghouse 25 April 2012 (State Clearinghouse Number 2011042021).

The Central Valley Water Board filed a Notice of Determination with the State Clearinghouse as a lead agency within five (5) days of the date of this Certification.

Compensatory Mitigation: As required by the United States Army Corps of Engineers, the Applicant will pay in-lieu fees to mitigate for 0.13 acre of permanent impacts to intermittent stream, 0.076 acre of vernal pools, and 0.055 acre of wetlands. Evidence of this payment shall be provided to the Central Valley Water Board prior to proceeding with the activity authorized by this Certification.

Application Fee Provided: Total fees of \$2,121.00 have been submitted to the Central Valley Water Board as required by § 3833(b)(3)(A) and § 2200(a)(3) of the California Code of Regulations.

DISTRIBUTION LIST

Jason Deters
United States Army Corps of Engineers
Sacramento District Office
Regulatory Division
1325 J Street, Suite 1350
Sacramento, CA 95814-2922

Thomas Leeman
United States Fish & Wildlife Service
Sacramento Fish & Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, CA 95825

Tim Nosal
Department of Fish and Wildlife
1701 Nimbus Road
Rancho Cordova, CA 95670

Bill Jennings
CA Sportfishing Protection Alliance
3536 Rainier Avenue
Stockton, CA 95204

Bill Orme (Electronic copy only)
401 Certification and Wetlands Unit Chief
State Water Resources Control Board

Jason A. Brush (Electronic copy only)
Wetlands Office Supervisor (WTR-8)
United States Environmental Protection Agency

Sandstone Creek Curve Correction
10-SJ-26-PM 18.5/19.0
EA # 10-OT160
WOUS Impacts

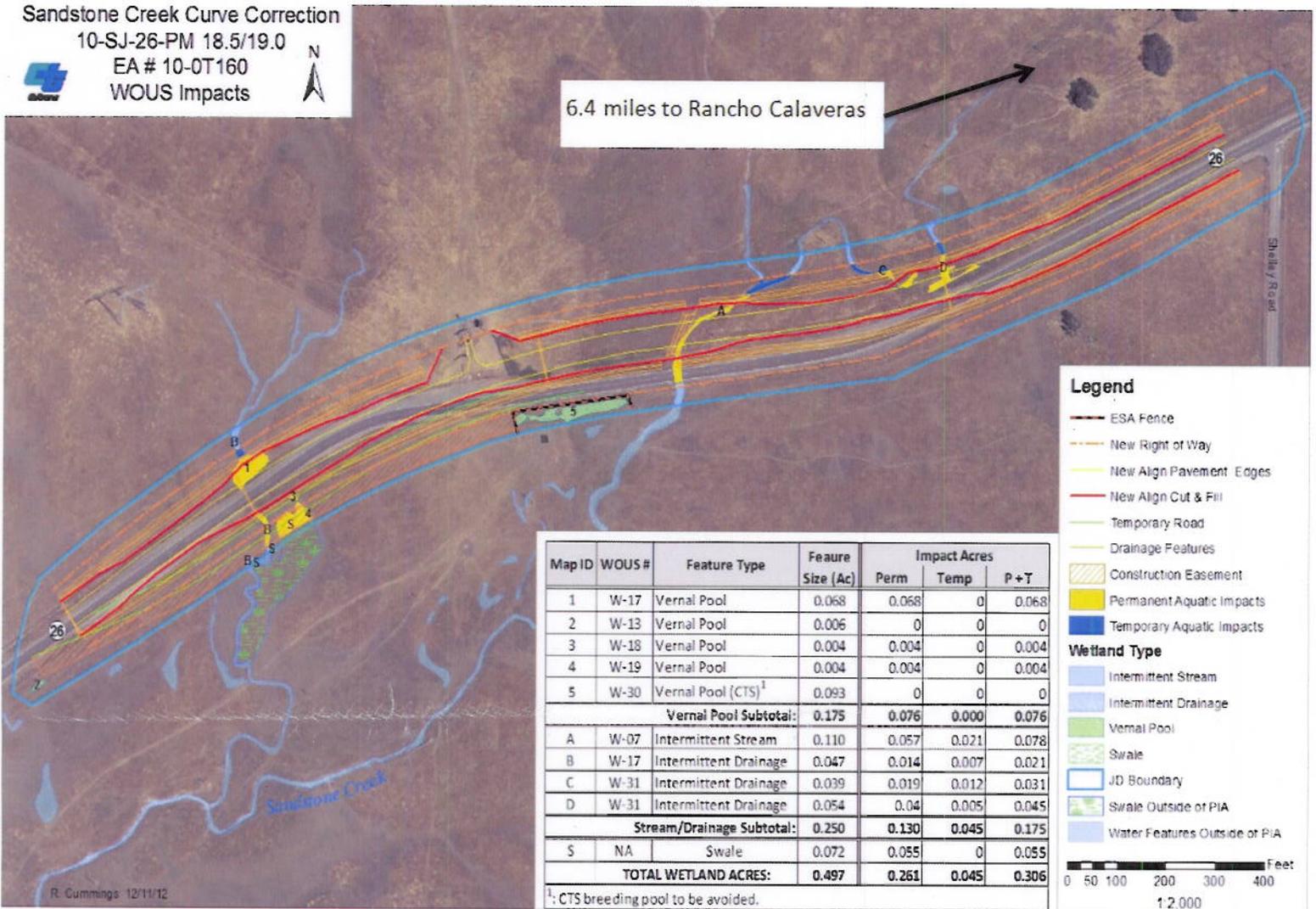


Figure 1 – Project Location Map



DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO CA 95814-2922

REPLY TO
ATTENTION OF

January 29, 2013

Regulatory Division (SPK-2005-00788)

State of California
Department of Transportation, District 6
Attention: Mr. Scott Guidi
855 M Street, Suite 200
Fresno, California 93721-2716

Dear Mr. Guidi:

We are responding to your, November 5, 2012, request for a Department of the Army permit for the State Route 26 Sandstone Creek Curve Correction project (EA 10-0T160). This approximately 14.82-acre project involves activities, including discharges of dredged or fill material, in waters of the United States to implement a curve realignment and road improvement project. The project is located on Sandstone Creek, Section 26, Township 3 North, Range 9 East, Mount Diablo Meridian, Latitude 38.081179°, Longitude -120.968328°, San Joaquin County, California.

Based on available information, we concur with the amount and location of wetlands and/or other water bodies on the site as depicted on the enclosed, December 11, 2012, *Sandstone Creek Curve Correction 10-SJ-26-PM 18.5/19.0 EA# 10-0T160 Jurisdictional Determination: All Waters* drawing, prepared by Ronald Cummings. The approximately 0.497 acres of wetlands and other water bodies present within the survey area are potential waters of the United States regulated under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act. A copy of our RGL 08-02 Preliminary Jurisdictional Determination Form for this site is enclosed. Please sign and return a copy of the completed form to this office.

Based on the information you provided, the proposed activity, resulting in the permanent loss of approximately 0.076 acre of vernal pools, 0.055 acre of seasonal wetlands, and 0.130 acre of intermittent stream, and temporary impacts to approximately 0.045 acre of intermittent stream, is authorized by Nationwide Permit Number 14. **However, until Section 401 Water Quality Certification for the activity has been issued or waived, our authorization is denied without prejudice. Once you have provided us evidence of water quality certification, the activity is authorized and the work may proceed subject to the conditions of certification and the Nationwide Permit.**

Furthermore, we understand the State of California, Department of Transportation (Caltrans), acting on behalf of the Federal Highway Administration (FHWA), is the National Environmental Policy Act (NEPA) lead Federal agency for this project, and as such, will ensure the authorized work complies with the NEPA, the Endangered Species Act, the National Historical Preservation Act, and any other applicable federal laws. Your work must comply with the General Conditions listed on the enclosed *Nationwide Permit 14 Summary* sheet, the Regional Conditions listed on the enclosed *Final Sacramento District Regional Conditions for California, excluding Lake Tahoe Basin*, and the following special conditions:

Special Conditions

1. To mitigate for the loss of 0.130 acre of Open Water, 0.076 acre of Vernal Pools, and 0.055 acre of wetland swale, you shall submit a check, in the amount of \$54,350.00 [(\$150,000.00 per acre of Open Water x 0.130 acre) + (\$350,000.00 per acre of Vernal Pools x 0.076 acre) + (\$150,000.00 per acre of Wetlands x 0.055 acre)], payable to the National Fish and Wildlife Foundation (NFWF). Lower Calaveras-Mormon Slough, Hydrologic Unit Code 18040004, must be indicated in the in-lieu fee agreement in order to insure the proper location of future mitigation. Within fourteen (14) days of receiving a receipt that your fees have been deposited, you shall submit a copy (typically Exhibit B) to this office for recordation. Prior to initiation of any construction activities within waters of the U.S., you must receive written notification from the Corps that the check has been deposited in NFWF's Sacramento District Wetlands Conservation Fund.

2. This Corps permit does not authorize you to take an endangered species, in particular California distinct population segment of the federally threatened California tiger salamander (*Ambystoma californiense*: central California tiger salamander), the federally threatened vernal pool fairy shrimp (*Branchinecta lynchi*), and the federally-endangered vernal pool tadpole shrimp (*Lepidurus packardii*), or designated critical habitat. In order to legally take a listed species, you must have separate authorization under the Endangered Species Act (e.g., an Endangered Species Act Section 10 permit, or a Biological Opinion under Endangered Species Act Section 7, with "incidental take" provisions with which you must comply). The enclosed Fish and Wildlife Service Biological Opinion (Number 81420-2011-F-0576-1, dated January 18, 2012), contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" that is also specified in the Biological Opinion. Your authorization under this Corps permit is conditional upon your compliance with all of the mandatory terms and conditions associated with "incidental take" of the attached Biological.

3. Prior to any work in waters of the U.S., you shall submit to this office, for review and acceptance, all design plans, maps, and/or drawings which outline or detail the activities authorized by this DA permit, including but not limited to; de-watering, grading, access, Disposal, Staging, and Borrow (DSB), and Environmentally Sensitive Areas (ESA). Plans, maps and/or drawings may be submitted electronically to regulatory-info@usace.army.mil.

4. You shall notify this office of any proposed modifications to the project, including revisions to any of the work plans or documents cited in this authorization, for review and approval prior to construction work associated with the proposed modification(s).

5. If any of the above conditions are violated or unauthorized activities occur, you shall stop work immediately and notify this office. You shall provide us with a detailed description of the unauthorized activity(s), photo documentation, and any measures taken to remedy the violation.

You must sign the enclosed Compliance Certification and return it to this office within 30 days after completion of the authorized work.

This verification is valid for two years from the date of this letter or until the Nationwide Permit is modified, reissued, or revoked, whichever comes first. Failure to comply with the General and Regional Conditions of this Nationwide Permit, or the project-specific Special Conditions of this authorization, may result in the suspension or revocation of your authorization.

We would appreciate your feedback. At your earliest convenience, please tell us how we are doing by completing the customer survey on our website under *Customer Service Survey*.

Please refer to identification number SPK-2005-00788 in any correspondence concerning this project. If you have any questions, please contact Mr. Jason Deters at our California South Branch Office, 1325 J Street, Room 1350, Sacramento, California 95814-2922, email Jason.Deters@usace.army.mil, or telephone 916-557-7152. For more information regarding our program, please visit our website at www.spk.usace.army.mil/Missions/Regulatory.aspx.

Sincerely,

Original Signed

Paul Maniccia
Chief, California South Branch

Enclosures

Copy Furnished without enclosures

California Regional Water Quality Control Board, Central Valley Region, 11020 Sun Center Drive, Suite 200, Rancho Cordova, California 95670
California Department of Fish and Wildlife, North Central Region, 1701 Nimbus Road, Rancho Cordova, California 95670
United States Fish and Wildlife Service, San Joaquin Valley Division, 2800 Cottage Way, Sacramento, California 95825
Mr. Eric Raffini, U.S. Environmental Protection Agency, Wetlands Office, WTR9, 75 Hawthorne Street, San Francisco, California 94105-3920

COMPLIANCE CERTIFICATION

Permit File Number: SPK-2005-00788

Nationwide Permit Number: 14 – Linear Transportation Projects

Permittee: State of California
Department of Transportation, District 6
Attn: Mr. Scott Guidi
855 M Street, Suite 200
Fresno, California 93721-2716

County: San Joaquin

Date of Verification: January 29, 2013

Within 30 days after completion of the activity authorized by this permit, sign this certification and return it to the following address:

U.S. Army Corps of Engineers
Sacramento District
1325 J Street, Room 1350
Sacramento, California 95814-2922
DLL-CESPK-RD-Compliance@usace.army.mil

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with the terms and conditions of the permit your authorization may be suspended, modified, or revoked. If you have any questions about this certification, please contact the Corps of Engineers.

* * * * *

I hereby certify that the work authorized by the above-referenced permit, including all the required mitigation, was completed in accordance with the terms and conditions of the permit verification.

Signature of Permittee

Date

U.S. Army Corps of Engineers South Pacific Division



Nationwide Permit Pre-Construction Notification (PCN) Form

This form integrates requirements of the U.S. Army Corps of Engineers Nationwide Permit Program within the South Pacific Division (SPD), including General and Regional Conditions. You MUST fill out all boxes related to the work being done. Fillable boxes in this form expand if additional space is needed.

Box 1 Project Name Sandstone Creek Curve Correction			
Applicant Name Frank Meraz		Applicant Title Branch Chief, Central Region Biology	
Applicant Company, Agency, etc. California Department of Transportation		Applicant's internal tracking number (if any)	
Mailing Address 855 M Street, Suite 200, Fresno, CA 93721			
Work Phone with area code 559-445-6406	Mobile Phone with area code	Home Phone with area code	Fax # with area code 559-445-6236
E-mail Address frank_meraz@dot.ca.gov		Relationship of applicant to property: <input checked="" type="checkbox"/> Owner <input type="checkbox"/> Purchaser <input type="checkbox"/> Lessee <input type="checkbox"/> Other:	
Application is hereby made for verification that subject regulated activities associated with subject project qualify for authorization under a U.S. Army Corps of Engineers Nationwide Permit or Permits as described herein. I certify that I am familiar with the information contained in this application and, that to the best of my knowledge and belief, such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities. I hereby grant to the agency to which this application is made the right to enter the above-described location to inspect the proposed, in-progress or completed work. I agree to start work <u>only</u> after all necessary permits have been received and to comply with all terms and conditions of the authorization.			
Signature of applicant <i>Frank Meraz</i>			Date (mm/dd/yyyy) 1/14/2013

If anyone other than the person named as the Applicant will be in contact with the U.S. Army Corps of Engineers representing the Applicant regarding this project during the permit process, Box 2 MUST be filled out.

Box 2 Authorized Agent/Operator Name		Agent/Operator Title	
Agent/Operator Company, Agency, etc.		E-mail Address	
Mailing Address			
Work Phone with area code	Mobile Phone with area code	Home Phone with area code	Fax # with area code
I hereby authorize the above named authorized agent to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application. I understand that I am bound by the actions of my agent and I understand that if a federal or state permit is issued, I, or my agent, must sign the permit.			
Signature of applicant			Date (mm/dd/yyyy)
I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief, such information is true, complete, and accurate.			
Signature of authorized agent			Date (mm/dd/yyyy)

Box 3 Name of Property Owner(s), if other than Applicant:		
Owner Title	Owner Company, Agency, etc.	
Mailing Address		
Work Phone with area code	Mobile Phone with area code	Home Phone with area code

Box 4 Name of Contractor(s) (if known):		
Contractor Title	Contractor Company, Agency, etc.	
Mailing Address		
Work Phone with area code	Mobile Phone with area code	Home Phone with area code

Box 5 Site Number <u>1</u> of <u>1</u>. Project location(s), including street address, city, county, state, zip code where proposed activity will occur: On State Route 26 between post mile 18.5 and 19.0 in eastern San Joaquin County, California, just west of the intersection of SR 26 and Shelley Road.	
Waterbody (if known, otherwise enter "an unnamed tributary to"): Sandstone Creek and associated ephemeral drainages. Tributary to what known, downstream waterbody: Calaveras River	
Latitude & Longitude (D/M/S, DD, or UTM with Zone): Latitude 38 deg, 4 min 56.41 sec North Longitude -120 deg, 58 min 2.83 sec West (wgs 84)	Section, Township, Range: Section 27, Township 3 North, Range 9 East Mount Diablo Base and Meridian
County Assessor Parcel Number (Include County name): NA	USGS Quadrangle map name: Valley Springs SW
Watershed (HUC and watershed name ¹):18040004 Lower Calaveras - Mormon Slough ¹ http://water.usgs.gov/GIS/regions.html	Size of permit area or project boundary: 10.5 acres linear feet
Directions to the project location and other location descriptions, if known: From Sacramento: Get on SR 99 southbound and travel approximately 43 miles (to the City of Stockton) to the California 26/E Fremont Street (toward Linden) off-ramp exit; turn left onto California State Route 26 (SR26). Travel approximately 18.5 miles on SR 26. The project is located between Postmiles 18.5 and 19.0, just west of Shelley Road.	

Nature of Activity (Description of the project, include all features):

The California Department of Transportation (Caltrans) proposes to realign two existing curves and replace the Sandstone Creek Bridge with a triple box culvert along State Route (SR) 26 from post mile (PM) 18.5 to PM 19.0 in San Joaquin County. A temporary detour will be provided as part of this project for constructability reasons. The curve realignment will include the construction of new embankments with standard side slopes and will require the relocation of one Pacific Gas & Electric power pole. Drainage ditches and three reinforced concrete pipe culverts along with rock slope protection will be installed along the highway. Work will take place during the dry season when aquatic features are expected to be dry or at minimal flows.

The proposed work would include the following:

- Relocation of public utilities (one telephone pole).
- Replace three existing culverts.
- Replace the existing bridge structure with a triple box culvert.
- Creation of 1,730 linear feet (0.436 ac) of vegetated biofiltration swales along new roadway.
- Establishment of a temporary construction easement along the south-west portion of the proposed project location.
- Construction of a temporary road to re-route traffic during construction.
- Re-construction of SR 26 from PM 18.5 to PM 19.0 with curve realignment including the construction of new embankments with standard side slopes.
- Removal of the temporary roadway and the existing SR 26 from PM 18.5 to 19.0.
- Excavation of approximately 120' of new stream channel to accommodate the placement of the new triple-box culvert over Sandstone Creek. The new channel will approximate the dimensions and gradient of the existing channel as closely as possible. Placement of temporary coffer dam and piping will divert any water around the work site.

Project Purpose (Description of the reason or purpose of the project):

The purpose of the project is to realign the existing curves to current design standards conforming to the design speed of this segment of SR 26. It is anticipated that the new alignment would reduce the severity and number of "Run off Road" accidents at this location.

Box 6 Reason(s) for discharge into Waters of the United States (Description of why dredged and/or fill material needs to be placed in Waters of the United States):

Discharge would be a result of the relocation and replacement (with a concrete triple box culvert) of the Sandstone Creek Bridge, and the relocation and replacement of three other drainage culverts. Discharge will also result from the construction of a new road footprint, and the construction of a temporary bypass road, which will be subsequently removed and restored after completion of the new roadway.

Proposed discharge of dredge and/or fill material. Indicate total surface area in acres and linear feet (where appropriate) of the proposed impacts to Waters of the United States, indicate water body type (tidal wetland, non-tidal wetland, riparian wetland, ephemeral stream/river, intermittent stream/river, perennial stream/river, pond/lake, vegetated shallows, bay/harbor, lagoon, ocean, etc.), and identify the impact(s) as permanent and/or temporary for each requested Nationwide Permit¹:

¹ Enter the intended permit number(s). See Nationwide Permit regulations for permit numbers and qualification information: <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/NationwidePermits.aspx>

Water Body Type	Requested NWP Number: 14				Requested NWP Number:				Requested NWP Number:			
	Permanent		Temporary		Permanent		Temporary		Permanent		Temporary	
	Area	Length	Area	Length	Area	Length	Area	Length	Area	Length	Area	Length
Vernal Pool	0.076		0									
Intermittent Stream	.130		.045									
Swale	.055		0									
Total:	0.261		0.045									

Total volume (in cubic yards) and type(s) of material proposed to be dredged from or discharged into Waters of the United States:

Material Type	Total Volume Dredged	Total Volume Discharged
Rock Slope Protection (RSP)		35.75 cy
Clean spawning gravel		
River rock		
Soil/Dirt/Silt/Sand/Mud		3,402 cy
Concrete		168.3 cy
Structure		
Stumps/Root wads		
Other:		
Total:		3,606.05 cy

Activity requires a written waiver to exceed specified limits of the Nationwide Permit? Yes No
 If yes, provide Nationwide Permit number and name, limit to be exceeded, and rationale for each requested waiver:

Activity will result in the loss of greater than 1/2-acre of Waters of the United States? Yes No
If yes, provide an electronic copy (compact disc) or multiple hard copies (7) of the complete PCN for appropriate Federal and State Pre-discharge Notification (See General Condition #31, Pre-construction Notification, Agency Coordination, Section 2 and 4):

Describe direct and indirect effects caused by the activity and how the activity has been designed (or modified) to have minimal adverse effects on the aquatic environment (See General Condition #31, Pre-construction Notification, District Engineer's Decision, Section 1): None expected. Construction will take place when channels and vernal pools are dry or at minimal flows. Temporary coffer dam structure within Sandstone Creek will divert any water flows around the construction area. BMPs will mitigate sedimentation and impacts to water quality. Construction of vegetated biofiltration swales and associated runoff ditches will direct and filter stormwater runoff and sheetflow from adjacent uplands. Existing California tiger salamander breeding pool will be protected by ESA fencing and avoided throughout the project duration.

Potential cumulative impacts of proposed activity(if any): None expected. Post-project flows within the impacted channels are expected to remain the same as the existing condition. Biofiltration swales will likely increase the amount of potential vernal pool area.

Required drawings and figures (see each U.S. Army Corps of Engineers District's Minimum Standards Guidance):

Vicinity map: Attached (or mail copy separately if applying electronically)

To-scale Plan view drawing(s): Attached (or mail copy separately if applying electronically)

To-scale elevation and/or Cross Section drawing(s): Attached (or mail copy separately if applying electronically)

Numbered and dated pre-project color photographs: Attached (or mail copy separately if applying electronically)

Sketch drawing(s) or map(s): Attached (or mail copy separately if applying electronically)

Has a wetlands/waters of the U.S. delineation been completed?

Yes, Attached² (or mail copy separately if applying electronically) No

If a delineation has been completed, has it been verified in writing by the Corps?

Yes, Date of preliminary or approved jurisdictional determination (mm/dd/yyyy):

Corps file number:

No

²If available, provide ESRI shapefiles (NAD83) for delineated waters

For proposed discharges of dredged material resulting from navigation dredging into inland or near-shore waters of the U.S. (including beach nourishment), please attach³ a proposed Sampling and Analysis Plan (SAP) prepared according to Inland Testing Manual (ITM) guidelines (including Tier I information, if available), or if disposed offshore, a proposed SAP prepared according to the Ocean Disposal Manual.

³Or mail copy separately if applying electronically

Is any portion of the work already complete? YES NO

If yes, describe the work:

Box 7 Authority:

Is Section 10 of the Rivers and Harbors Act applicable?: YES NO

Is Section 404 of the Clean Water Act applicable?: YES NO

Is the project located on U.S. Army Corps of Engineers property or easement?: YES NO

If yes, has Section 408 process been initiated?: YES NO

Would the project affect a U.S. Army Corps of Engineers structure?: YES NO

If yes, has Section 408 process been initiated?: YES NO

Is the project located on other Federal Lands (USFS, BLM, etc.)?: YES NO
 Is the project located on Tribal Lands?: YES NO

Box 8 Is the discharge of fill or dredged material for which Section 10/404 authorization is sought part of a larger plan of development?: YES NO

If discharge of fill or dredged material is part of development, name and proposed schedule for that larger development (start-up, duration, and completion dates):

Location of larger development (if discharge of fill or dredged material is part of a plan of development, a map of suitable quality and detail of the entire project site should be included):

Box 9 Measures taken to avoid and minimize impacts to waters of the United States:

Adjacent waters and wetlands outside immediate work area will be marked with Environmentally Sensitive Area (ESA) fencing and avoided. Work will be performed when the channels and vernal pools are dry or at minimal flows. Temporary coffer dam structure within Sandstone Creek will divert any water flows around the construction area. Standard Caltrans BMPs and erosion control measures will minimize impacts to water quality.

Box 10 Proposed Compensatory Mitigation related to fill/excavation and dredge activities. Indicate in **acres** and **linear feet** (where appropriate) the total quantity of Waters of the United States proposed to be created, restored, enhanced and/or preserved for purposes of providing compensatory mitigation. Indicate water body type (tidal wetland, non-tidal wetland, riparian wetland, ephemeral stream/river, intermittent stream/river, perennial stream/river, pond/lake, vegetated shallows, bay/harbor, lagoon, ocean, etc.) or non-jurisdictional (uplands¹). Indicate mitigation type (permittee-responsible on-site/off-site, mitigation bank, or in-lieu fee program). If the mitigation is purchase of credits from a mitigation bank, indicate the bank to be used, if known:

¹ For uplands, please indicate if designed as an upland buffer.

Site Number	Water Body Type	Created		Restored		Enhanced		Preserved		Mitigation Type
		Area	Length	Area	Length	Area	Length	Area	Length	
1	Vernal pool	.076								ILFP
1	Intermittent Stream	.130								ILFP
1	Swale	.055								ILFP
Total:		.261								ILFP

If no mitigation is proposed, provide detailed explanation of why no mitigation would be necessary:
 NA

If permittee-responsible mitigation is proposed, provide justification for not utilizing a Corps-approved mitigation bank or in-lieu fee program:

NA

Has a draft/conceptual mitigation plan been prepared in accordance with the April 10, 2008, Final Mitigation Rule² and District Guidelines?

²http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/mitig_info.aspx

³**Sacramento and San Francisco Districts**-http://www.spk.usace.army.mil/organizations/cespk-co/regulatory/pdf/Mitigation_Monitoring_Guidelines.pdf

⁴**Los Angeles District**-http://www.spl.usace.army.mil/regulatory/mmg_2004.pdf

⁵**Albuquerque District**-http://www.spa.usace.army.mil/reg/mitigation/SPA%20Final%20Mitigation%20Guidelines_OLD.pdf

Yes, Attached (or mail copy separately if applying electronically) No

If no, a mitigation plan must be prepared and submitted, if applicable.

Mitigation site(s) Latitude & Longitude (D/M/S, DD,
or UTM with Zone):

USGS Quadrangle map name(s):

Assessor Parcel Number(s):

Section(s), Township(s), Range(s):

Other location descriptions, if known:

Directions to the mitigation location(s):

Box 11 Threatened or Endangered Species

Please list any federally-listed (or proposed) threatened or endangered species or critical habitat (or proposed critical habitat) within the project area (include scientific names (e.g., Genus species), if known):

- a. California tiger salamander (*Ambystoma californiense*) (presence confirmed)
- b. Vernal pool fairy shrimp (*Branchinecta lynchi*) (presence inferred)
- c. _____
- d. _____
- e. _____
- f. _____

Have surveys, using U.S. Fish and Wildlife Service/NOAA Fisheries protocols, been conducted?

Yes, Report attached (or mail copy separately if applying electronically) No

If a federally-listed species would be impacted, please provide a description of the impact and a biological evaluation, if available.

Yes, Report attached (or mail copy separately if applying electronically) Not attached

Has Section 7 consultation been initiated by another federal agency?

Yes, Initiation letter attached (or mail copy separately if applying electronically) No

Has Section 10 consultation been initiated for the proposed project?

Yes, Initiation letter attached (or mail copy separately if applying electronically) No

Has the USFWS/NOAA Fisheries issued a Biological Opinion?

Yes, Attached (or mail copy separately if applying electronically) No

If yes, list date Opinion was issued (m/d/yyyy):

Box 12 Historic properties and cultural resources:

Are any cultural resources of any type known to exist on-site? Yes No

Please list any known historic properties listed, or eligible for listing, on the National Register of Historic Places:

- | | |
|----|----|
| a. | b. |
| c. | d. |
| e. | f. |

Has a cultural resource records search been conducted?

Yes, Report attached (or mail copy separately if applying electronically) No

Has a cultural resource pedestrian survey been conducted for the site?

Yes, Report attached (or mail copy separately if applying electronically) No

Has another federal agency been designated the lead federal agency for Section 106 consultation?

Yes, Designation letter/email attached (or mail copy separately if applying electronically) No

Has Section 106 consultation been initiated by another federal agency?

Yes, Initiation letter attached (or mail copy separately if applying electronically) No

Has a Section 106 MOA or PA been signed by another federal agency and the SHPO?

Yes, Attached (or mail copy separately if applying electronically) No

If yes, list date MOA or PA was signed (m/d/yyyy):

Box 13 Section 401 Water Quality Certification:

Applying for certification? Yes, Attached (or mail copy separately if applying electronically) No

Certification issued? Yes, Attached (or mail copy separately if applying electronically) No

Certification waived? Yes, Attached (or mail copy separately if applying electronically) No

Certification denied? Yes, Attached (or mail copy separately if applying electronically) No

Exempted activity? Yes No

Agency concurrence? Yes, Attached No

If exempt, state why:

Box 14 Coastal Zone Management Act:

Is the project located within the Coastal Zone? Yes No

If yes, applying for a coastal commission-approved Coastal Development Permit?

Yes, Attached (or mail copy separately if applying electronically) No

If no, applying for separate CZMA-consistency certification?

Yes, Attached (or mail copy separately if applying electronically) No

Permit/Consistency issued? Yes, Attached (or mail copy separately if applying electronically) No

Exempt? Yes No

Agency concurrence? Yes, Attached No

If exempt, state why:

Box 15 List of other certifications or approvals/denials received from other federal, state, or local agencies for work described in this application:

Agency	Type of Approval ⁴	Identification Number	Date Applied	Date Approved	Date Denied
CRWQCB	401 Certification	NA	Jan 11, 2013	Pending	
CDFG	1602 Streambed Alteration	NA	October 26, 2012	Pending	

⁴ Would include but is not restricted to zoning, building, and flood plain permits

Nationwide Permit General Conditions (GC) checklist:

(<http://www.gpo.gov/fdsys/pkg/FR-2012-02-21/pdf/2012-3687.pdf>)

Check	General Condition	Rationale for compliance with General Condition
<input checked="" type="checkbox"/>	1. Navigation	There are no navigable waterways within or near the project vicinity. There will be no effects on navigation.
<input checked="" type="checkbox"/>	2. Aquatic Life Movements	No disruption of aquatic life movement will take place as a result of this project by following avoidance and minimization measures.
<input checked="" type="checkbox"/>	3. Spawning Areas	No spawning areas are located in the project vicinity.
<input checked="" type="checkbox"/>	4. Migratory Bird Breeding Areas	No shorebird, waterfowl, or migratory bird breeding areas are located within WOUS in the project vicinity.
<input checked="" type="checkbox"/>	5. Shellfish Beds	No shellfish beds are located in the project vicinity.
<input checked="" type="checkbox"/>	6. Suitable Material	Fill will meet suitable material standards and will be free from toxic pollutants. Fill will be limited to the minimal amount necessary to accomplish the project.
<input checked="" type="checkbox"/>	7. Water Supply Intakes	No water supply intakes exist in the project vicinity.
<input checked="" type="checkbox"/>	8. Adverse Effects from Impoundments	No impoundments are proposed.
<input checked="" type="checkbox"/>	9. Management of Water Flows	The project will not permanently impede or restrict the passage of normal or expected high water flows. Post construction layout of new culverts will allow for unimpeded flows.
<input checked="" type="checkbox"/>	10. Fills Within 100-Year Floodplains	As defined in 23 CFR Section 650.105(q), the project does not constitute a significant floodplain encroachment.
<input checked="" type="checkbox"/>	11. Equipment	Heavy equipment in the project impact area will be restricted to temporary access roads and current Caltrans right-of-way. Equipment will not stage within water features.
<input checked="" type="checkbox"/>	12. Soil Erosion and Sediment Controls	Appropriate soil erosion and sediment controls will be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work within WOUS, must be permanently stabilized at the earliest practicable date. Caltrans' standard erosion controls will be utilized to prevent soil erosion and soil sedimentation.
<input checked="" type="checkbox"/>	13. Removal of Temporary Fills	Temporary fill will be removed in its entirety and the affected areas would be returned to pre-construction elevations. The affected area(s) would be re-vegetated as appropriate.
<input checked="" type="checkbox"/>	14. Proper Maintenance	The maintenance of the roadway in the project area, SR 26, will be the responsibility of Caltrans and will be properly maintained.
<input checked="" type="checkbox"/>	15. Single and Complete Project	Project is single and complete.
<input checked="" type="checkbox"/>	16. Wild and Scenic Rivers	The project site is not within any designated or proposed NWSRS.
<input checked="" type="checkbox"/>	17. Tribal Rights	No tribal rights will be impaired by this project.
<input checked="" type="checkbox"/>	18. Endangered Species	See Box 11 above.
<input checked="" type="checkbox"/>	19. Migratory Bird and Bald and Golden Eagle Permits	No eagles or eagle habitat will be impacted by the project. Preconstruction surveys will locate migratory bird nests in the project vicinity. Nests will be protected by seasonal buffers.
<input checked="" type="checkbox"/>	20. Historic Properties	See Box 12 above.
<input checked="" type="checkbox"/>	21. Discovery of Previously Unknown Remains and Artifacts	Caltrans Standard Provision 14-2.02 describes procedure to protect uncovered remains and artifacts.
<input checked="" type="checkbox"/>	22. Designated Critical Resource Waters	Project site does not include any Designated Critical Resource Waters
<input checked="" type="checkbox"/>	23. Mitigation	See Box 10 above.

<input checked="" type="checkbox"/>	24. Safety of Impoundment Structures	No impoundments are proposed by this project.
<input checked="" type="checkbox"/>	25. Water Quality	See Box 13 above.
<input checked="" type="checkbox"/>	26. Coastal Zone Management	See Box 14 above.
<input checked="" type="checkbox"/>	27. Regional and Case-by-Case Conditions	The proposed project does not occur within the vicinity or manner of any Regional Conditions outlined by the Army Corps of Engineers.
<input checked="" type="checkbox"/>	28. Use of Multiple Nationwide Permits	Applicant is aware that if total proposed acreage of impacts exceed the acreage limit of the NWP with the highest specified acreage, no NWP can be issued.
<input checked="" type="checkbox"/>	29. Transfer of Nationwide Permit Verifications	Applicant is aware of this permit transfer requirement.
<input checked="" type="checkbox"/>	30. Compliance Certification	Applicant is aware of this post-construction requirement.
<input checked="" type="checkbox"/>	31. Pre-Construction Notification	PCN for this project was submitted which included a delineation of wetlands and other WOUS, and demonstrations of compliance with ESA and NHPA.



S J C O G, Inc.

555 East Weber Avenue • Stockton, CA 95202 • (209) 235-0600 • FAX (209) 235-0600

San Joaquin County Multi-Species Habitat Conservation & Open Space Plan (SJMSCP)

Sandstone Creek Curve Correction Project SJMSCP Incidental Take Minimization Measures File #81420-2011-F-0576-1 / 10-0T160

Date: April 22, 2013

Findings: Potential for SJMSCP Covered Species (CTS / Swainson's Hawk / VP Fairy Shrimp)

Total Disturbed Acres Anticipated: 7.056 acres

0.77 acres of Urban (U) Habitat Land (per habitat classification change)

6.21 acres of Vernal Pool Grassland (G3) upland

0.076 acres of Vernal Pool Grassland (G3) wetted

Habitat Types to be Disturbed: Urban (U) and Vernal Pool Grassland (G3 – Upland and Wetted)

Project Jurisdiction: Caltrans (per USFWS/CDFW)

Advisory Statements

After inspecting the project site, and project site conditions, the San Joaquin Council of Governments (SJCOG) provides the following *advisory statements* to the applicant. No further action is required with the SJCOG with respect to the following statements. SJCOG does not accept any liability for the accuracy of these statements since each regulatory agency discussed below must determine the extent of its own regulatory authority with respect to the proposed project. Nonetheless, we are reasonably confident that the advice provided in this paragraph is sound. The proposed project as reviewed will not likely affect areas/habitats that would be regulated by the California Department of Fish and Game (CDFG) pursuant to Section 1602 of the Fish and Game Code (i.e. will not require a streambed alteration agreement).

It should be noted that two important federal agencies (U.S. Army Corps of Engineers and the California Regional Water Quality Control Board) have not issued permits to the SJCOG and so payment of the fee to use the SJMSCP will not modify requirements now imposed by these two agencies. **Potential waters of the United States [pursuant to Section 404 Clean Water Act] may occur on the project site.** It therefore may be prudent to obtain a preliminary wetlands map from a qualified consultant. If waters of the United States are confirmed on the project site, the Corps and the Regional Water Quality Control Board (RWQCB) would have regulatory authority over those mapped areas [pursuant to Section 404 and 401 of the Clean Water Act respectively] and permits would likely be required from each of these resource agencies prior to impacting these features on the project site.

The ITMM is not deemed complete until finalized by SJCOG, Inc. staff and provided back to the project.

Conditions

1. Prior to ground disturbance:

1. Incidental Take Minimization Measures (ITMMs) will be issued to the project and must be signed by the project applicant prior to any ground disturbance but no later than six (6) months from receipt of the ITMMs. If ITMMs are not signed within six months, the applicant must reapply for SJMSCP Coverage. Upon receipt of signed ITMMs from project applicant, SJCOG, Inc. staff will sign the ITMMs. This is the effective date of the ITMMs.
2. Under no circumstance shall ground disturbance occur without compliance and satisfaction of the ITMMs.
3. Upon issuance of fully executed ITMMs and prior to any ground disturbance, the project applicant must:
 - a. Post a bond for payment of the applicable SJMSCP fee covering the entirety of the project acreage being covered (the bond should be valid for no longer than a 6 month period); or
 - b. Pay the appropriate SJMSCP fee for the entirety of the project acreage being covered; or
 - c. Dedicate land in-lieu of fees, either as conservation easements or fee title; or
 - d. Purchase approved mitigation bank credits.
4. Within 6 months from the effective date of the ITMMs or issuance of a building permit, whichever occurs first, the project applicant must:
 - a. Pay the appropriate SJMSCP for the entirety of the project acreage being covered; or
 - b. Dedicate land in-lieu of fees, either as conservation easements or fee title; or
 - c. Purchase approved mitigation bank credits.

Failure to satisfy the obligations of the mitigation fee shall subject the bond to be called.

2. Provide appropriate SJMSCP fees/credits based on habitat categories to **SJCOG, Inc.**:
- G3 wetted 0.076 acres at 3:1 ratio = 0.23 (round up to 0.5) acres or credit value
 - G3 upland 6.21 acres at 3:1 ratio = 18.63 (round up to 19.0) acres or credit value

Note: If fees are not paid prior to January 1, 2014 this project will be subject to the subsequent fee change, and the fee above will no longer be applicable.

Project Proponent Must Initial Here As to Understanding the Note Above: _____

SJMSCP minimization measures incorporated within the supplemental document as prescribed by USFWS and CDFW are listed below:

3. No greater than 14 calendar days before ground disturbance:

1. Prior to construction, Caltrans will install mesh fencing and/or new right-of-way (ROW) fencing along the edge of newly acquired ROW in order to prevent the encroachment of equipment and personnel outside of the designated work areas on sensitive central California tiger salamander habitat located outside the project area. Suitable habitat adjacent to construction activities, but still within the ROW, will be established as environmentally sensitive areas (ESA)

using exclusionary fencing also to prevent the encroachment of equipment and personnel into these areas.

2. Prior to project groundbreaking, an approved biologist(s) will conduct educational training to instruct personnel on the status of the central California tiger salamander; how to avoid unanticipated effects; and the potential penalties for not complying with the conditions and requirements of the SJMSCP.

During project construction:

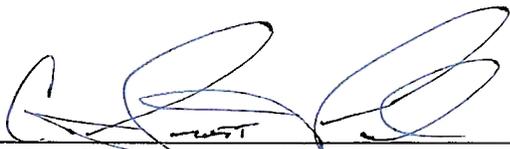
1. Construction will be halted during rain events and for three days following a rain event. Prior to resuming construction, an approved biologist will examine the area for California tiger salamanders, and will remove and release any California tiger salamanders a safe distance from the project area.
2. If work is scheduled to occur between September 30 and June 1 of any year, Caltrans will install silt or drift fencing to surround the construction area to prevent California tiger salamanders from entering these areas. Prior to beginning construction on any day, an approved biologist will examine these areas on a daily basis for the presence of California tiger salamanders trapped within the perimeter of the drift/silt fencing. Any trapped California tiger salamanders will be removed a safe distance from the project area and released.
3. Chemicals, lubricants, and petroleum products will be closely monitored and precautions used. If a spill occurs, cleanup will take place immediately. All equipment shall be maintained such that there will be no leaks of fluids such as gasoline, oils, or solvents.
4. Construction will be timed to occur during the dry season, (between approximately April 15 and November 1), so as to avoid impacting breeding individuals at seasonal wetland locations. The dry season window may depend on rainfall and/or site conditions. Caltrans will confirm its seasonal start and end dates 30 days prior to the commencement of groundbreaking and the completion of work, respectively, to ensure the schedule does not begin too early or finish too late.
5. An approved biologist(s) shall be on-site during site preparation and other ground disturbance activities that remove upland habitat when the species could be unearthed from upland refugia.
6. Habitat areas impacted temporarily by project activities will be restored to original grade and contour once construction is completed. A re-vegetation plan will be developed in conjunction with Caltrans' design and landscaping teams to create an appropriate seed mix for the areas.
7. All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in closed containers and removed at least once a week from the construction site.

After project construction:

1. A post-construction report detailing compliance with the SJMSCP will be provided to the Service within 60 calendar days of completion of the project. The report shall include: (1) dates of project groundbreaking and completion; (2) pertinent information concerning the success of the project in meeting compensation and other conservation measures; (3) an explanation of failure to meet such measures, if any; (4) known project effects on the central California tiger salamander, if any; (5) observed incidences of injury to or mortality of the central California tiger salamander; and (6) any other pertinent information.

In reliance on the Section 10(a)(1)(B) Permit issued by the United States Fish and Wildlife Service and the Section 2081(b) Incidental Take Permit issued by the California Department of Fish and Wildlife, San Joaquin County has consulted with and agreed to allow coverage pursuant to the SJMSCP for the Sandstone Creek Curve Correction Project, its successors, agents and assigns pursuant to the "Implementation Agreement for the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan" which will allow the Sandstone Creek Curve Correction Project, its successors, agents and assigns to construct, operate and maintain the Project commonly known as the Sandstone Creek Curve Correction Project which could result in a legally permitted Incidental Take of the SJMSCP Covered Species in accordance with and subject to the terms and conditions of the Sandstone Creek Curve Correction Project approved by San Joaquin County. This Certification applies only to activities on the subject parcel(s) which are carried out in full compliance with the approved plans for the Sandstone Creek Curve Correction Project, Section 10(a)(1)(B) Permit, and Section 2081(b) Incidental Take Permit conditions.

I have read, acknowledge, and agree to the preceding conditions:



Project Proponent for the Sandstone Creek Curve Correction Project

6/5/13

Date

C. Scott Guini

Please Print Name Here

FOR SJCOG, Inc. Use Only:

Laurel Boyd

SJCOG, Inc. Staff Signature

6/5/2013

Official Date of Issuance

Laurel Boyd

SJCOG, Inc. Staff Print Name Here

12/5/2013

Mitigation Due Date