INFORMATION HANDOUT

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PERMITS

U.S. Fish and Wildlife Service, Biological Opinion

United States Army Corps of Engineers

Non-Reporting Nationwide 404

WATER QUALITY

401 California Regional Water Quality Control Board

Central Valley Region
Board Order No. 2003-0017-DWQ

AGREEMENTS

California Department of Fish and Wildlife

Notification No. 1600-2013-0399-R3

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:
08ESMF00-2012-F-0663-3

MAY 09 2013

Mr. Javier Almaguer
California Department of Transportation
855 M Street, Suite 200
Fresno, California 93721

Subject: Biological Opinion for the Proposed Napa State Route 128 Horizontal Drains Project, Napa County, California (Caltrans EA 04-3G760)

Dear Mr. Almaguer:

This is in response to your September 13, 2012, request for formal consultation with the U.S. Fish and Wildlife Service (Service) on the proposed Napa State Route (SR) 128 Horizontal Drains Project in Napa County, California. Your request was received in our office on September 24, 2012, and included the request for formal consultation on the threatened California red-legged frog (*Rana draytonii*). Your consultation package was considered complete on January 16, 2013. This document represents the Service's biological opinion (BO) on the effects of the proposed action on the California red-legged frog. This document has been prepared in accordance with section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 *et seq.*)(Act).

The Service has a legal mandate and trust responsibility to maintain healthy, migratory bird populations for the benefit of the American public pursuant to the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 *et seq*). The proposed project includes vegetation clearing and general construction disturbance that may adversely impact bird species protected under the MBTA. Riparian-associated bird species have the potential to be nesting in the action area during active construction. The vegetation within the Capell Creek riparian corridor provides abundant nesting opportunities, as does the adjacent Capell Creek Bridge. Removal of vegetation could cause the abandonment or direct loss of an active bird nest. General construction disturbance could cause the abandonment of nearby nests. We recommend that the California Department of Transportation (Caltrans) incorporate avoidance measures in their project description to prevent violation of the MBTA. Caltrans can discuss proposed avoidance measures with our Sacramento Fish and Wildlife Office Migratory Bird Coordinator, Deborah Giglio at *Deborah_Giglio@fws.gov* or (916) 414-6600.

Moving Ahead for Progress in the 21st Century Act (MAP-21) was signed into law on July 6, 2012. Effective, October 1, 2012, MAP-21 includes provisions to promote streamlined

and accelerated project delivery. Caltrans was approved to participate in the MAP-21 Surface Transportation Project Delivery Program through the National Environmental Policy Act (NEPA) Assignment Memorandum of Understanding (MOU). The MOU allows Caltrans to assume the Federal Highway Administration's (FHWA) responsibilities under NEPA as well as FHWA's consultation and coordination responsibilities under Federal environmental laws for most highway projects in California. Caltrans is exercising this authority as the federal nexus for section 7 consultation on this project.

This BO is based on: (1) the September 2012, Biological Assessment (BA); (2) additional project information provided by Caltrans between December 17, 2012, and January 16, 2013; (3) a December 20, 2012, field visit; and (4) other information available to the Service.

Consultation History

September 24, 2012	The Service received Caltrans' request to initiate formal consultation for the California red-legged frog. The request submittal included the September 2012 BA.
October 24, 2012	The Service issued a 30-day letter to Caltrans requesting additional project description information necessary to complete formal consultation (Service File No: 08ESMF00-2012-F-0663-1).
December 17, 2012	The Service received additional project description information from Caltrans in response to the October 24, 2012, 30-day letter.
December 19, 2012	The Service received supplemental project description information from Caltrans.
December 20, 2012	The Service visited the proposed project site with Caltrans. During the field visit Caltrans requested a draft BO prior to the final.
January 9-16, 2013	The Service received additional supplemental project description information from Caltrans. Following review of the submitted information, the Service had no further information needs from Caltrans.
March 19, 2013	The Service issued the draft BO to Caltrans for review and comment (Service File No: 08ESMF00-2012-F-0663-2).
April 26, 2013	Caltrans provided the Service with requested edits to the March 19, 2013, draft BO.

BIOLOGICAL OPINION

Description of the Proposed Action

The following project description was provided by Caltrans with minor modifications for reasons of clarity and accuracy incorporated by the Service.

The proposed project area is located along the 2-lane, SR 128, near Lake Berryessa at the Capell Creek Bridge and post mile 20.2. A portion of the hillside immediately north of the Capell Creek Bridge is slumping towards the roadway and north abutment of the bridge. Existing plastic horizontal drains extend approximately 200 feet into the hillside along SR 128, north of the bridge to facilitate removal of subsurface water and prevent further movement. Some of the existing drains are clogged and no longer functional. Emergency repairs have previously been made to the north end of the Capell Creek Bridge due to this ongoing issue.

The two primary purposes of the project are to: (1) enable Caltrans to better monitor future movement of the hillside; and (2) stabilize the hillside.

General Scope of Work
Proposed project elements consist of the following.

1. Install slope indicators.

2. Clean existing horizontal storm drains along SR 128.

3. Upgrading existing ditch along SR 128.

4. Asphalt overlay of SR 128.

5. Install new horizontal drains along Capell Creek.

Construction Schedule
The described activities are expected to take approximately 60 days to complete. Work that requires access within Capell Creek will be limited to between June 1 and October 15. Construction is expected to commence in the Spring of 2014.

Equipment
Construction will likely require a core driller, excavator, and loader.

Construction
The slope indicators will be installed by core drilling into the hillside and inserting a steel pile (6-inch diameter/36 inches long) with a gauge placed at the top to measure slide movement. The slope indicators will be installed along SR 128, north of the Capell Creek Bridge. No site preparation will be needed and work will be staged from the existing roadway.

Cleaning and maintenance of the existing horizontal drains in the hillside, west of SR 128 and north of the Capell Creek Bridge, will be completed from SR 128 and the road shoulder. Horizontal drains can typically be flushed with jet washing with clean water within the pipe. Difficult clogs may require insertion of a brush during flushing or pumping.

The existing horizontal drains empty into an earthen roadside ditch which extends to the north end of the Capell Creek Bridge. At the north end of the bridge, the runoff flows down slope towards Capell Creek. The earthen ditch will be replaced with a concrete "V" ditch that will drain onto a new rock slope protection (RSP) pad adjacent to the bridge. The RSP pad is intended to dissipate the flow down into Capell Creek. Construction of the concrete ditch will require grading, but will not require removal of perennial vegetation.

Approximately 715 linear feet (0.2 acre) of SR 128, north of the Capell Creek Bridge and adjacent to the existing horizontal drains, will be overlaid with a new layer of asphalt.

New horizontal directional drain pipes will be installed into the hillside at the Capell Creek channel elevation. The drains will be installed immediately west of Capell Creek and south of the Capell Creek Bridge. Twelve new plastic 3-inch diameter drain pipes will be drilled approximately 200 feet into the hill. The pipe ends will extend approximately 5 feet from the hill and will empty into one of two new dissipator pads that will be constructed immediately above the Capell Creek bank. Water will drain off the dissipator pads into Capell Creek.

Installation of new horizontal drains will require more site preparation. Access to the creek bed will include use of an existing, approximately 10-foot wide, 460-foot long dirt road (0.1 acre) from SR 128 to Capell Creek. Grading improvements may be needed prior to use. Grading improvements are most likely to occur at the SR 128 junction and the approach to the creek bank. Trimming of trees and shrubs may be needed along the access road. Two 15 by 20 foot construction pads will be used to stage equipment in the creek for drilling and installation of the drains.

Prior to the start of construction activities, environmentally sensitive area and wildlife exclusion fencing will be installed along the boundary of the Capell Creek access road and Capell Creek work area. Fencing will be maintained throughout construction and removed at the end of construction activities. The final project plans will show where and how the fences will be installed. The bid solicitation package special provisions will provide further instructions about acceptable fencing material.

Riparian vegetation will be cleared to allow access to the drilling locations on the north side of the creek bank. The proposed construction area on the bank and in the channel of Capell Creek will be approximately 0.6 acre. Mature riparian vegetation will be removed from the construction and staging areas. Vegetation will be cleared only when necessary and will be cut above soil level in areas that will be restored following construction. Clearing and grubbing will be completed by hand with small mechanical tools. Vegetation removal will be scheduled outside of the bird-nesting season, which is typically between February 15 and August 15.

A temporary water diversion system will be used to dewater the active work area during in-stream work (June 1 to October 15). The temporary creek diversion system will consist of a diversion pipe with temporary cofferdams located at the upstream and downstream ends of the construction area. Depending on the water flow at the time of construction, dewatering of proposed RSP pad foundations in the streambed may be required.

The cofferdams will be constructed across the existing creek channel with gravel bags wrapped in impermeable plastic sheeting. A cut-off trench will be used in conjunction with the cofferdams to reduce seepage into the work area. Caltrans will submit the water diversion plan to the Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Wildlife (CDFW) for approval prior to construction. The temporary dewatering system will be removed by October 15. The work area, including the cut-off trench, will be restored to baseline condition.

Two RSP pads will be installed to dissipate the drain runoff prior to its discharge into Capell Creek. If possible, Caltrans will plant willow or other riparian plants within the RSP. Approximately 35 cubic yards of soil will be excavated due to the drilling operation. The excavated soil will be disposed of off-site. No permanent RSP, fill, or other materials or structures will remain in the Capell Creek creekbed following construction.

Site Clean-Up and Restoration
All construction-related materials including the wildlife exclusion fencing and environmentally sensitive area fencing will be removed after construction activities have been completed. To the maximum extent practicable, temporarily disturbed areas will be revegetated with appropriate native species. Permanent erosion control, including soil stabilization measures such as hydroseeding, coir netting and non-filament mesh will be applied to minimize erosion after construction.

Some vegetation will be seeded or planted as an erosion control measure during the construction season. Caltrans will revegetate the two RSP dissipation pads with willow cuttings when possible. Spaces between rocks within the RSP may provide cover for California red-legged frogs and other wildlife.

A revegetation plan will be prepared and will likely include, but will not be limited to: amendment of plant holes; initial plant installation of native or appropriate trees, shrubs, ground covers, grasses or forbs by way of nursery container stock or hydroseeding; caring for the plantings to ensure a healthy, growing condition for a 3-year plant establishment period; in-kind replacement of suitable plants; weeding; non-chemical rodent and other pest control; mowing; trash and debris removal; plant pruning and fertilizer application; plant basin mulching; and installation of foliage protectors as needed or as determined necessary. Irrigation may include hand or truck watering and a temporary above or below grade irrigation system.

Maintenance of the site is expected to be minimal, as the native plants should be well established by the completion of the 3-year plant establishment period.

Proposed Conservation Measures
Caltrans proposes to avoid and minimize effects to the California red-legged frog by implementing the following measures:

a. A Service-approved biologist(s) will be on-site during all activities that may result in the take of the California red-legged frog. The biologist(s) qualifications will be presented to the Service for review and written approval prior to ground-breaking at the project site.

b. No more than twenty (20) working days prior to any ground disturbance, pre-construction California red-legged frog surveys will be conducted by a Service-approved biologist. The Service-approved biologist(s) will investigate all potential California red-legged frog cover sites within the action area. This includes full investigation of mammal burrows. Burrow entrances will be collapsed in areas that will be subject to ground disturbance following investigation.

c. A Service-approved biologist(s) will be onsite to monitor the initial ground disturbance activities. The biologist(s) will perform a California red-legged frog clearance survey immediately prior to the initial ground disturbance. The biological monitor will also investigate areas of disturbed soil for signs of California red-legged frogs within 30 minutes following the initial disturbance of that given area.

d. The Service-approved biologist(s) will permanently remove, from the project site, any exotic wildlife species, such as bullfrogs and crayfish, to the extent possible.

e. The Resident Engineer or their designee will be responsible for implementing the conservation measures and Terms and Conditions of this BO and will be the point of contact for the project. The Resident Engineer or their designee will maintain a copy of this BO onsite whenever construction is taking place. Their name and telephone number will be provided to the Service at least thirty (30) calendar days prior to groundbreaking.

f. The Resident Engineer will stop work at the request of the Service-approved biologist(s) if activities are identified that may result in the take of a California red-legged frog. Should the biologist(s) or the Resident Engineer exercise this authority, the Service will be notified by telephone and electronic mail within one (1) working day. The Service's contact will be the Coast-Bay/Forest Foothills Division Chief in the Sacramento Fish and Wildlife Office at (916) 414-6600.

g. A Service-approved biologist will conduct environmental education training for all construction employees. The program will include the following: a description of the California red-legged frog and its habitat needs; photographs of the species; an explanation of its legal status and protection under the Act; and a list of the measures that will be implemented to minimize and avoid effects to the listed frog. Upon completion of the training program, personnel will sign a form stating that they attended the program and understand the avoidance and minimization measures

relevant to their activities on the project. These sign-in sheets will be kept on file and will be made available to the Service on request.

h. Project employees will be provided with written guidance governing vehicle use, speed limits on unpaved roads, fire prevention, and other hazards.

i. Except for vegetation clearing (necessary to minimize effects to nesting birds), work within the creek channel will be limited to between June 1 and October 15.

j. Any revegetation plans will be reviewed and approved by the Service. In addition, annual monitoring reports on the success of the plantings will be provided to the Service for review.

k. There will be no night-time construction.

l. Project-related vehicles will observe a 20-mile per hour speed limit within the action area, except on County roads, and State and Federal highways.

m. All food-related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in closed containers and removed at least once a day from the project site.

n. Firearms will be prohibited at the project site, except for those carried by authorized security personnel, or local, State or Federal law enforcement officials.

o. Pets will be prohibited from the project area.

p. If requested, before, during, or upon completion of ground breaking and construction activities, Caltrans will allow access by Service personnel to the action area to inspect project effects. Caltrans requests that all agency representatives contact the Resident Engineer prior to accessing the work site and review and sign the Safe Work Code of Practices, prior to accessing the work site for the first time.

q. All project-related vehicle traffic will be restricted to the action area described in the September 2012 BA.

r. The active construction area will be delineated with high visibility temporary fencing at least 4 feet in height, flagging, or other barrier to prevent encroachment of construction personnel and equipment outside the described project footprint. Fencing will be inspected and maintained daily by the on-site biologist until completion of the project. Fencing will be removed after all construction equipment is removed.

s. California red-legged frog exclusionary fencing will be placed at the edge of active construction areas to restrict frog access into the work area. The fencing will consist of taut silt fabric; 24 inches in height, staked at 10-foot intervals, with the bottom buried 6 inches below grade. Exclusion fencing will be maintained on a daily basis.

t. To prevent inadvertent entrapment of California red-legged frogs during construction, all excavated, steep-walled holes or trenches more than 1-foot deep will be covered at the close of each working day with plywood or similar materials, or provided with one or more escape ramps constructed of earthen fill or wooden planks. Holes and trenches will be thoroughly inspected for trapped animals before being filled. If at any time a trapped listed animal is discovered, the Service-approved biologist will immediately place escape ramps or other appropriate structures to allow the animal to escape, or the Service will be contacted by telephone for guidance. The Service will be notified of the incident by telephone and electronic mail within one (1) working day.

u. Plastic mono-filament netting (erosion control matting) or similar material will not be used at the project site because California red-legged frog may become entangled or trapped in it. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds.

v. If pumping is used for dewatering, intakes will be completely screened with wire mesh no larger than 0.2 inch to prevent frogs from entering the pump.

w. Vegetation will be cleared only where necessary and will be cut above soil level in areas that will be restored following construction. Clearing and grubbing will be completed with hand tools when possible. If clearing and grubbing occurs between February 1 and August 31, a qualified biologist(s) will survey for nesting birds within the area(s) to be disturbed including a perimeter buffer of 50 feet for passerines and 250 feet for raptors, before clearing activities begin. All nest avoidance requirements of the MBTA and CDFW Codes will be observed. Cleared vegetation will be removed from the action area. The contractor will be responsible for obtaining all permits, licenses and environmental clearances for properly disposing of such materials.

x. Caltrans will restore temporarily disturbed areas to baseline conditions or better to the maximum extent practicable. Exposed slopes and bare ground will be reseeded with native grasses and shrubs to stabilize and prevent erosion. Where disturbance includes the removal of trees and woody shrubs, native species will be replanted, based on the local species composition.

y. Caltrans will comply with Presidential Executive Order 13112 Executive Order 13112 to reduce the spread of invasive, non-native plant species and minimize the potential decrease of palatable vegetation for wildlife (http://www.gpo.gov/fdsys/pkg/FR-1999-02-08/pdf/99-3184.pdf). This order prevents the introduction of invasive species and provides for their control in order to minimize the economic, ecological, and human health effects. In the event that noxious weeds are disturbed or removed during construction-related activities, the contractor will be required to contain the plant material associated with these noxious weeds and dispose of them in a manner that will not promote their spread. The contractor will be responsible for obtaining all permits, licenses and environmental

clearances for properly disposing of materials. Areas subject to noxious weed removal or disturbance will be replanted with fast-growing native grasses or a native erosion control seed mixture. If seeding is not possible, the areas will be covered to the extent practicable with heavy black plastic solarization material until the end of the project.

z. All grindings and asphaltic-concrete waste will be temporarily stored within previously disturbed areas absent of habitat and at a minimum of 50 feet from any culvert, drainage, or aquatic feature and removed from the action area after construction is complete.

aa. Hazardous materials such as fuels, oils, solvents, etc. will be stored in sealable containers in a designated location that is at least 50 feet from wetlands and aquatic habitats.

bb. Equipment will be maintained to prevent the leakage of vehicle fluids such as gasoline, oils or solvents and a Spill Response Plan will be prepared and implemented.

cc. A Storm Water Pollution Prevention Plan (SWPPP), and erosion control best management practices (BMPs) will be developed and implemented to minimize any wind- or water-related erosion. These plans will also be in compliance with the RWQCB requirements. Caltrans' Construction Site BMP Manual (Caltrans 2003) will provide guidance for design staff to include provisions in construction contracts for measures to protect sensitive areas and prevent and minimize stormwater and non-stormwater discharges. At a minimum, protective measures will include:

1. No discharge of pollutants from vehicle and equipment cleaning into any storm drains or watercourses;

2. Keeping vehicle and equipment fueling and maintenance operations at least 50 feet away from watercourses, except at established commercial gas stations or established vehicle maintenance facility;

3. Collecting and disposing of concrete wastes in washouts and water from curing operations;

4. Maintaining spill containment kits onsite at all times during construction operations and/or staging or fueling of equipment;

5. Using water trucks and dust palliatives to control dust in excavation and fill areas, covering temporary access road entrances and exits with rock (rocking), and covering temporary stockpiles during rain events;

6. Installing coir rolls or straw wattles along or at the base of slopes during construction to capture sediment;

7. Protecting graded areas from erosion with a combination of silt fences and fiber rolls along toes of slopes or along edges of staging areas, and erosion control netting (such as jute or coir) as appropriate on sloped areas; and

8. Establishing permanent erosion control measures such as bio-filtration strips and swales to receive storm water discharges from the highway, or other impervious surfaces will be incorporated to the maximum extent practicable.

Analytical Framework for the Jeopardy Determination

The following analysis relies on four components to support the jeopardy determination for the California red-legged frog: (1) the *Status of the California Red-Legged Frog*, which evaluates the species' range-wide condition, the factors responsible for that condition, and its survival and recovery needs; (2) the *Environmental Baseline In the Action Area*, which evaluates the condition of the species 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 Proposed Action*, which determines the direct and indirect effects of the proposed Federal action and the effects of any interrelated or interdependent activities on the species; and (4) *Cumulative Effects Within the Action Area*, which evaluates the effects of future, non-Federal activities in the action area on the species.

In accordance with the implementing regulations for section 7 and Service policy, the jeopardy determination is made in the following manner: the effects of the proposed Federal action are evaluated in the context of the aggregate effects of all factors that have contributed to the species' current status and, for non-Federal activities in the action area, those actions likely to affect the species in the future, 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 the species in the wild.

The following analysis places an emphasis on using the range-wide survival and recovery needs of the species and the role of the action area in providing for those needs as the context for evaluating the significance of the effects of the proposed Federal action, taken together with cumulative effects, for purposes of making the jeopardy determination.

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." For the proposed action, the action area includes the effects associated with the approximately 1.1-acre construction footprint (0.1 acre access road + 0.2 acre of temporary work area on Capell Creek bank + 0.4 acre of permanent affects for the establishment of two dissipation pads above the Capell Creek bank + 0.4 acre of SR 128 asphalt overlay and the areas within the Capell Creek watershed and other habitat within at least 0.5 mile downstream of the construction footprint potentially affected by water quality issues.

Status of the California Red-Legged Frog

Listing Status
The California red-legged frog was listed as a threatened species on May 23, 1996 (Service 1996). Critical habitat was re-designated for this species on March 17, 2010 (Service 2010). A recovery plan was published for the California red-legged frog on September 12, 2002 (Service 2002).

Description
The California red-legged frog is the largest native frog in the western United States (Wright and Wright 1949), ranging from 1.5 to 5.1 inches in length (Stebbins 2003). The abdomen and hind legs of adults are largely red, while the back is characterized by small black flecks and larger irregular dark blotches with indistinct outlines on a brown, gray, olive, or reddish background. Dorsal spots usually have light centers (Stebbins 2003), and dorsolateral folds are prominent on the back. California red-legged frogs have paired vocal sacs and vocalize in air (Hayes and Krempels 1986). Larvae (tadpoles) range from 0.6 to 3.1 inches in length, and the background color of the body is dark brown and yellow with darker spots (Storer 1925).

Distribution
The historic range of the red-legged frog extended coastally from the vicinity of Elk Creek in Mendocino County, California, and inland from the vicinity of Redding, Shasta County, California, southward to northwestern Baja California, Mexico (Jennings and Hayes 1985; Hayes and Krempels 1986; Fellers 2005). The red-legged frog was historically documented in 46 California counties but the taxon now remains in 238 streams or drainages within 23 counties, representing a loss of 70 percent of its former range (Service 2002). California red-legged frogs are still locally abundant within portions of the San Francisco Bay area and the central coast. Within the remaining distribution of the species, only isolated populations have been documented in the Sierra Nevada, northern Coast Range, northern Transverse Ranges, southern Transverse Ranges, and Peninsular Ranges.

Status and Natural History
California red-legged frogs predominately inhabit permanent water sources such as streams, lakes, marshes, natural and man-made ponds, and ephemeral drainages in valley bottoms and foothills up to 4,921 feet in elevation (Jennings and Hayes 1994, Bulger *et al.* 2003, Stebbins 2003). However, California red-legged frogs also have been found in ephemeral creeks and drainages and in ponds that may or may not have riparian vegetation. California red-legged frogs also can be found in disturbed areas such as channelized creeks and drainage ditches in urban and agricultural areas. For example, an adult California red-legged frog was observed in a shallow isolated pool on North Slough Creek in the American Canyon area of Napa County (C. Gaber, PG&E, pers. comm., 2008). This frog location was surrounded by vineyard development. Another adult California red-legged frog was observed under debris in an unpaved parking lot in a heavily industrial area of Burlingame (P. Kobernus, Coast Ridge Ecology, pers. comm., 2008). This frog was likely utilizing a nearby drainage ditch. Caltrans also has discovered California red-legged frog adults, tadpoles, and egg masses within a storm drainage system within a major cloverleaf intersection of Millbrae Avenue and SR 101 in a heavily developed area of San Mateo

County (Caltrans 2007). California red-legged frog has the potential to persist in disturbed areas as long as those locations provide at least one or more of their life history requirements.

California red-legged frogs typically breed between November and April in still or slow-moving water at least 2.5 feet in depth with emergent vegetation, such as cattails, tules or overhanging willows (Hayes and Jennings 1988). There are earlier breeding records from the southern portion of their range (Storer 1925). Female frogs deposit egg masses on emergent vegetation so that the egg mass floats on or near the surface of the water (Hayes and Miyamoto 1984). Individuals occurring in coastal areas are active year-round (Jennings *et al.* 1992), whereas those found in interior sites are normally less active during the cold and dry seasons.

During other parts of the year, habitat includes nearly any area within 1-2 miles of a breeding site that stays moist and cool through the summer (Fellers 2005). According to Fellers (2005), this can include vegetated areas with coyote brush, California blackberry thickets, and root masses associated with willow and California bay trees. Sometimes the non-breeding habitat used by California red-legged frogs is extremely limited in size. For example, non-breeding California red-legged frogs have been found in a 6-foot wide coyote brush thicket growing along a small intermittent creek surrounded by heavily grazed grassland (Fellers 2005). Sheltering habitat for California red-legged frogs is potentially all aquatic, riparian, and upland areas within the range of the species and includes any landscape features that provide cover, such as existing animal burrows, boulders or rocks, organic debris such as downed trees or logs, and industrial debris. Agricultural features such as drains, watering troughs, spring boxes, abandoned structures, or hay stacks may also be used. Incised stream channels with portions narrower and depths greater than 18 inches also may provide important summer sheltering habitat. Accessibility to sheltering habitat is essential for the survival of California red-legged frogs within a watershed, and can be a factor limiting frog population numbers and survival.

California red-legged frogs do not have a distinct breeding migration (Fellers 2005). Adult frogs are often associated with permanent bodies of water. Some frogs remain at breeding sites all year while others disperse. Dispersal distances are typically less than 0.5-mile, with a few individuals moving up to 1-2 miles (Fellers 2005). Movements are typically along riparian corridors, but some individuals, especially on rainy nights, move directly from one site to another through normally inhospitable habitats, such as heavily grazed pastures or oak-grassland savannas (Fellers 2005).

In a study of California red-legged frog terrestrial activity in a mesic area of the Santa Cruz Mountains, Bulger *et al.* (2003) categorized terrestrial use as migratory and non-migratory. The latter occurred over one to several days and was associated with precipitation events. Migratory movements were characterized as the movement between aquatic sites and were most often associated with breeding activities. Bulger *et al.* (2003) reported that non-migrating frogs typically stayed within 200 feet of aquatic habitat 90 percent of the time and were most often associated with dense vegetative cover (*i.e.*, California blackberry, poison oak and coyote brush). Dispersing frogs in northern Santa Cruz County traveled distances from 0.25-mile to more than 2 miles without apparent regard to topography, vegetation type, or riparian corridors (Bulger *et al.* 2003).

In a study of California red-legged frog terrestrial activity in a xeric environment, Tatarian (2008) noted that 57 percent of frogs fitted with radio transmitters in the Round Valley study area in eastern Contra Costa County stayed at their breeding pools, whereas 43 percent moved into adjacent upland habitat or to other aquatic sites. This study reported a peak of seasonal terrestrial movement occurring in the fall months, with movement commencing with the first 0.2 inch of precipitation. Movements away from the source pools tapered off into spring. Upland movement activities ranged from 3 to 233 feet, averaging 80 feet, and were associated with a variety of refugia including grass thatch, crevices, cow hoof prints, ground squirrel burrows at the bases of trees or rocks, logs, and a downed barn door; others were associated with upland sites lacking refugia (Tatarian 2008). The majority of terrestrial movements lasted from 1 to 4 days; however, one adult female was reported to remain in upland habitat for 50 days (Tatarian 2008). Uplands closer to aquatic sites were used more often and frog refugia were more commonly associated with areas exhibiting higher object cover (*e.g.*, woody debris, rocks, and vegetative cover. Subterranean cover was not significantly different between occupied upland habitat and non-occupied upland habitat.

California red-legged frogs are often prolific breeders, laying their eggs during or shortly after large rainfall events in late winter and early spring (Hayes and Miyamoto 1984). Egg masses containing 2,000-5,000 eggs are attached to vegetation below the surface and hatch after 6 to 14 days (Storer 1925, Jennings and Hayes 1994). In coastal lagoons, the most significant mortality factor in the pre-hatching stage is water salinity (Jennings *et al.* 1992). Eggs exposed to salinity levels greater than 4.5 parts per thousand results in 100 percent mortality (Jennings and Hayes 1990). Increased siltation during the breeding season can cause asphyxiation of eggs and small larvae. Larvae undergo metamorphosis 3.5-7 months following hatching and reach sexual maturity 2-3 years of age (Storer 1925; Wright and Wright 1949; Jennings and Hayes 1985, 1990, 1994). Of the various life stages, larvae probably experience the highest mortality rates, with less than one percent of eggs laid reaching metamorphosis (Jennings *et al.* 1992). Sexual maturity normally is reached at 3-4 years of age (Storer 1925; Jennings and Hayes 1985). California red-legged frogs may live 8-10 years (Jennings *et al.* 1992). Populations of California red-legged frogs fluctuate from year to year. When conditions are favorable California red-legged frogs can experience extremely high rates of reproduction and thus produce large numbers of dispersing young and a concomitant increase in the number of occupied sites. In contrast, California red-legged frogs may temporarily disappear from an area when conditions are stressful (*e.g.*, drought).

California red-legged frogs have a diverse diet which changes as they mature. The diet of larval California red-legged frogs is not well studied, but is likely similar to that of other ranid frogs, which feed on algae, diatoms, and detritus by grazing on the surfaces of rocks and vegetation (Fellers 2005; Kupferberg 1996a, 1996b, 1997). Hayes and Tennant (1985) analyzed the diets of California red-legged frogs from Cañada de la Gaviota in Santa Barbara County during the winter of 1981 and found invertebrates (comprising 42 taxa) to be the most common prey item consumed; however, they speculated that this was opportunistic and varied based on prey availability. They ascertained that larger frogs consumed larger prey and were recorded to have preyed on Pacific tree frogs, three-spined stickleback and to a limited extent, California mice, which were abundant at the study site (Hayes and Tennant 1985, Fellers 2005). Although larger vertebrate prey was consumed less frequently, it represented over half of the prey mass eaten by

larger frogs suggesting that such prey may play an energetically important role in their diets (Hayes and Tennant 1985). Juvenile and subadult/adult frogs varied in their feeding activity periods; juveniles fed for longer periods throughout the day and night, while subadult/adults fed nocturnally (Hayes and Tennant 1985). Juveniles were significantly less successful at capturing prey and all life history stages exhibited poor prey discrimination; feeding on several inanimate objects that moved through their field of view (Hayes and Tennant 1985).

Metapopulation and Patch Dynamics

The direction and type of habitat used by dispersing animals is especially important in fragmented environments (Forys and Humphrey 1996). Models of habitat patch geometry predict that individual animals will exit patches at more "permeable" areas (Buechner 1987; Stamps *et al.* 1987). A landscape corridor may increase the patch-edge permeability by extending patch habitat (La Polla and Barrett 1993), and allow individuals to move from one patch to another. The geometric and habitat features that constitute a "corridor" must be determined from the perspective of the animal (Forys and Humphrey 1996).

Because their habitats have been fragmented, many endangered and threatened species exist as metapopulations (Verboom and Apeldom 1990; Verboom *et al.* 1991). A metapopulation is a collection of spatially discrete subpopulations that are connected by the dispersal movements of the individuals (Levins 1970; Hanski 1991). For metapopulations of listed species, a prerequisite to recovery is determining if unoccupied habitat patches are vacant due to the attributes of the habitat patch (food, cover, and patch area) or due to patch context (distance of the patch to other patches and distance of the patch to other features). Subpopulations in areas with higher quality food and cover are more likely to persist because they can support more individuals. Large populations have less of a chance of extinction due to stochastic events (Gilpin and Soule 1986). Similarly, small patches will support fewer individuals, increasing the rate of extinction. Patches that are near occupied patches are more likely to be recolonized when local extinction occurs and may benefit from emigration of individuals via the "rescue" effect (Hanski 1982; Fahrig and Merriam 1985; Gotelli 1991; Holt 1993). For the metapopulation to persist, the rate of patches being colonized must exceed the rate of patches going extinct (Levins 1970). If some subpopulations go extinct regardless of patch context, recovery actions should be placed on patch attributes. Patches could be managed to increase the availability of food and/or cover.

Movements and dispersal corridors likely are critical to California red-legged frog population dynamics, particularly because the animals likely currently persist as metapopulations with disjunct population centers. Movement and dispersal corridors are important for alleviating over-crowding and intraspecific competition, and also they are important for facilitating the recolonization of areas where the animal has been extirpated. Movement between population centers maintains gene flow and reduced genetic isolation. Genetically isolated populations are at greater risk of deleterious genetic effects such as inbreeding, genetic drift, and founder effects. The survival of wildlife species in fragmented habitats may ultimately depend on their ability to move among patches to access necessary resources, retain genetic diversity, and maintain reproductive capacity within populations (Petit *et al.* 1995; Buza *et al.* 2000; Hilty and Merenlender 2004).

Most metapopulation or metapopulation-like models of patchy populations do not directly include the effects of dispersal mortality on population dynamics (Hanski 1994; With and Crist 1995; Lindenmayer and Possingham 1996). Based on these models, it has become a widely held notion that more vagile species have a higher tolerance to habitat loss and fragmentation than less vagile species. But models that include dispersal mortality predict the opposite: more vagile species should be more vulnerable to habitat loss and fragmentation because they are more susceptible to dispersal mortality (Fahrig 1998; Casagrandi and Gatto 1999). This prediction is supported by Gibbs (1998), who examined the presence-absence of five amphibian species across a gradient of habitat loss. He found that species with low dispersal rates are better able than more vagile species to persist in landscapes with low habitat cover. Gibbs (1998) postulated that the land between habitats serves as a demographic "drain" for many amphibians. Furthermore, Bonnet *et al.* (1999) found that snake species that use frequent long-distance movements have higher mortality rates than do sedentary species.

Threats

Habitat loss, non-native species introduction, and urban encroachment are the primary factors that have adversely affected the red-legged frog throughout its range. Several researchers in central California have noted the decline and eventual local disappearance of California and northern California red-legged frogs (*Rana aurora*) in systems supporting bullfrogs (Jennings and Hayes 1990; Twedt 1993), red swamp crayfish, signal crayfish, and several species of warm water fish including sunfish, goldfish, common carp, and mosquitofish (Moyle 1976, Barry 1992, Hunt 1993, Fisher and Schaffer 1996). This has been attributed to predation, competition, and reproduction interference. Twedt (1993) documented bullfrog predation of juvenile northern California red-legged frogs, and suggested that bullfrogs could prey on subadult northern California red-legged frogs as well. Bullfrogs may also have a competitive advantage over California red-legged frogs. For instance, bullfrogs are larger and possess more generalized food habits (Bury and Whelan 1984). In addition, bullfrogs have an extended breeding season (Storer 1933) during which an individual female can produce as many as 20,000 eggs (Emlen 1977). Furthermore, bullfrog larvae are unpalatable to predatory fish (Kruse and Francis 1977). Bullfrogs also interfere with red-legged frog reproduction. Thus bullfrogs are able to prey upon and out-compete California red-legged frogs, especially in sub-optimal habitat. Both California and northern California red-legged frogs have also been observed in amplexus (mounted on) with both male and female bullfrogs (Jennings and Hayes 1990; Jennings 1993; Twedt 1993).

The urbanization of land within and adjacent to red-legged frog habitat has also adversely affected California red-legged frogs. These declines are attributed to channelization of riparian areas, conversion and isolation of breeding ponds, enclosure of the channels by urban development that blocks red-legged frog dispersal, the introduction of predatory fishes and bullfrogs.

Diseases may also pose a significant threat though the specific effects of disease on the California red-legged frog are not known. Pathogens are suspected of causing global amphibian declines (Davidson *et al.* 2003). Chytridiomycosis and ranaviruses are a potential threat to the red-legged frog because these diseases have been found to adversely affect other amphibians, including the listed species (Davidson *et al.* 2003; Lips *et al.* 2003). Non-native species, such as bullfrogs and non-native tiger salamanders that live within the range of the California red-legged

frog have been identified as potential carriers of these diseases (Garner *et al.* 2006). Human activities can facilitate the spread of disease by encouraging the further introduction of non-native carriers and by acting as carriers themselves (*i.e.*, contaminated boots or fishing equipment). Human activities can also introduce stress by other means, such as habitat fragmentation, that results in the listed species being more susceptible to the effects of disease. Disease will likely become a growing threat because of the relatively small and fragmented remaining California red-legged frog breeding sites, the many stresses on these sites due to habitat losses and alterations, and the many other potential disease-enhancing anthropogenic changes that have occurred both inside and outside the species' range.

Negative effects to wildlife populations from roads and pavement may extend some distance from the actual road. The phenomenon can result from any of the effects already described in this BO, such as vehicle-related mortality, habitat degradation, and invasive exotic species. Forman and Deblinger (1998, 2000) described the area affected as the "road effect" zone. Along a 4-lane road in Massachusetts, they determined that this zone extend for an average of approximately 980 feet to either side of the road for an average total zone width of approximately 1,970 feet. They describe the boundaries of this zone as asymmetric and in some areas diminished wildlife use attributed to road effects was detected greater than 0.6-mile from Massachusetts Route 2. The "road-zone" effect can also be subtle. Van der Zandt *et al.* (1980) reported that lapwings and black-tailed godwits feeding at 1,575-6,560 feet from roads were disturbed by passing vehicles. The heart rate, metabolic rate and energy expenditure of female bighorn sheep increase near roads (MacArthur *et al.* 1979). Trombulak and Frossell (2000) described another type of "road-zone' effect due to contaminants. Heavy metal concentrations from vehicle exhaust were greatest within 66 feet of roads, but elevated levels of metals in both soil and plants were detected at 660 feet of roads. The "road-zone" apparently varies with habitat type and traffic volume. Based on responses by birds, Forman (2000) estimated the effect zone along primary roads of 1,000 feet in woodlands, 1,197 feet in grasslands, and 2,657 feet in natural lands near urban areas. Along secondary roads with lower traffic volumes, the effect zone was 656 feet. The "road-zone" effect with regard to California red-legged frogs has not been adequately investigated.

The necessity of moving between multiple habitats and breeding ponds means that many amphibian species, such as the California red-legged frog, are especially vulnerable to roads and well-used large paved areas in the landscape. Van Gelder (1973) and Cooke (1995) have examined the effect of roads on amphibians and found that because of their activity patterns, population structure, and preferred habitats, aquatic breeding amphibians are more vulnerable to traffic mortality than some other species. Large, high-volume highways pose a nearly impenetrable barrier to amphibians and result in mortality to individual animals as well as significantly fragmenting habitat. Hels and Buchwald (2001) found that mortality rates for anurans on high traffic roads are higher than on low traffic roads. Vos and Chardon (1998) found a significant negative effect of road density on the occupation probability of ponds by the moor frog (*Rana arvalis*) in the Netherlands. In addition, incidents of very large numbers of road-killed frogs are well documented (*e.g.*, Ashley and Robinson 1996), and studies have shown strong population level effects of traffic density (Carr and Fahrig 2001) and high traffic roads on these amphibians (Van Gelder 1973; Vos and Chardon 1998). Most studies regularly count road kills from slow moving vehicles (Hansen 1982; Rosen and Lowe 1994; Drews 1995; Mallick *et*

al. 1998) or by foot (Munguira and Thomas 1992). These studies assume that every victim is observed, which may be true for large conspicuous mammals, but it certainly is not true for small animals, such as the California red-legged frog. Amphibians appear especially vulnerable to traffic mortality because they readily attempt to cross roads, are slow-moving and small, and thus cannot easily be avoided by drivers (Carr and Fahrig 2001).

Environmental Baseline in the Action Area

The proposed project is located in a mountainous area of east-central Napa County. The Capell Valley watershed is primarily characterized by oak woodland hills and grassland valleys as Capell Creek flows north into Lake Berryessa. It is a rural region with low density cattle grazing, vineyards, various sized reservoirs, and few residents. The bridge crossing is located in the lower quarter of the Capell Creek watershed. Capell Creek has perennial flow within the action area over a sand and cobble bed up and downstream of the bridge. The creek was characterized by riffles and glides through the proposed construction footprint during the December 20, 2012, field visit. However, debris piles were evidence of recent turbulent and high volume flow. The local creek segment is well vegetated and winds through a relatively wide canyon. Backwater pools, slack water, and slow moving glides were observed in the immediate area. Potential California red-legged frog aquatic breeding habitat cannot be ruled out within the general project vicinity. Capell Creek is a dynamic system and the location and character of backwater pools and other potential breeding habitat with sufficient depth and persistence for successful red-legged frog breeding likely changes annually. There are abundant undercut banks, exposed root wads, debris piles, and vegetation along the creek bank with the potential to provide valuable refugia for California red-legged frogs when inundated by high flows or when exposed during low flow. Capell Creek provides quality riparian habitat for a variety of wildlife.

The red-legged frog likely utilizes the surrounding upland habitat within and beyond the Capell Creek riparian corridor for refuge, forage, and dispersal. Red-legged frogs could travel to and between resource areas by using the riparian corridor or moving directly over the surrounding hills. The SR 128 roadside ditch provides a wet environment for dispersing frogs. The roadside drainage was flowing during the December 20, 2012, field visit. Flow or moisture within the ditch is likely prolonged due to the horizontal drainage pipes emptying groundwater into the feature.

The action area provides year-round refuge, forage, and dispersal habit for California red-legged frogs and potential breeding habitat during ideal hydrological periods.

Caltrans did not conduct standardized or protocol frog or other wildlife surveys in the proposed action area to support their baseline analysis for the project. Due to limited access, the Service used aerial photography and field observations from available access locations to independently identify available upland habitat for refugia and dispersal as well as potential riparian and aquatic habitat throughout the action area vicinity.

It is likely that there is breeding and non-breeding California red-legged frog habitat along the approximately 12-mile length of Capell Creek. There are few natural or constructed barriers to

frog movement in the general area. SR 128, widely scattered homes and business, vineyards, other agricultural fields, and horse pastures are the most obvious local development and habitat fragmenting features. The local vineyards have associated reservoirs that may provide breeding habitat for the California red-legged frog. Sean Barry identified constructed ponds at the Moss Creek Winery near the SR 121/128 intersection as the possible source of the frogs he observed in 1983, approximately 3.6 miles upstream and southeast of the project footprint within Capell Valley (CDFW 2012a, 2012b, CNDDB occurrence # 739). Barry reported hearing California red-legged frogs calling from this same location in 2003. Other than potential breeding within Capell Creek, there are several potential sources of California red-legged frogs that would occupy the action area. Using aerial photography and topographic mapping, at least four small reservoirs and stock ponds were identified within 1.0 mile of the proposed action area, the closest of which is approximately 0.1 mile away.

The lack of species occurrence records for the action area in the California Natural Diversity Database (CNDDB) likely is the result of a lack of survey efforts in east-central Napa County (CDFW 2012a; 2012b). This in turn is likely due to few recent local development projects and the majority of the land adjacent to the action area being in private ownership. The CNDDB includes two California red-legged frog records within 6.0 miles of the action area (CDFW 2012a, 2012b). The closest is previously referenced CNDDB occurrence # 739, near the SR 128/121 intersection. Another red-legged frog observation was recorded upstream, beyond the first record and approximately 5.9 miles southeast of the project footprint (CDFW 2012a, 2012b, CNDDB occurrence #401). This record is also within Capell Valley but within Wragg Creek, adjacent to SR 128. Wragg Creek is hydrologically connected to Capell Creek. Both CNDDB records are within the NAP-1 (Wragg Creek) California Red-Legged Frog Critical Habitat Unit, which at its closest distance is approximately 3.3 miles from the proposed action area. NAP-1 is the only red-legged frog critical habitat unit in Napa County (Service 2010). There are no significant barriers between the action area and this unit.

The recovery plan for California red-legged frogs identifies eight Recovery Units (Service 2002). The establishment of these Recovery Units is based on the Recovery Team's determination that various regional areas of the species' range are essential to its survival and recovery. The status of the California red-legged frog will be considered within the smaller scale of Recovery Units as opposed to the overall range. These Recovery Units are delineated by major watershed boundaries as defined by U.S. Geological Survey (USGS) hydrologic units and the limits of the range of the California red-legged frog. The goal of the recovery plan is to protect the long-term viability of all extant populations within each Recovery Unit. The proposed project is within Recovery Unit 3 (North Coast and North San Francisco Bay Unit) (Service 2002).

The action area also provides habitat for the foothill yellow-legged frog (*Rana boylii*), which was observed in action area for Caltrans' Capell Creek Bridge Replacement Project in 2010 and 2011 (Caltrans EA 2A1100 and Service File No.: 81420-2010-F-0845-2).

The Service believes that the California red-legged frog is reasonably certain to occur within the action area due to: (1) the project being located within the species' range and current distribution; (2) suitable aquatic and upland habitat within the action area; (3) habitat connectivity with two previous observations within 6.0 miles of the action area; (4) all the

elements needed to support the species' life history are potentially located within 0.1 mile of the action area; (5) the lack of significant disturbance or history of significant threats to the species in the general vicinity; and (6) the biology and ecology of the animal.

Effects of the Proposed Action

Caltrans proposes to minimize construction-related effects by implementing the *Conservation Measures* included in the project description section of this BO. Effective implementation of the *Conservation Measures* will likely minimize effects to the California red-legged frog during construction but incidental take is still likely to occur. Therefore, the proposed Napa SR 128 Horizontal Drains Project has the potential to result in a variety of adverse effects that would result in take of the California red-legged frog.

Construction activities could result in the killing, harming and/or harassment of juvenile and adult frogs inhabiting areas of suitable aquatic and upland habitat. The project as proposed in Caltrans' September 2012, BA and further described in subsequent correspondence, is defined by a 1.1-acre construction footprint, much of which is located within the bed and bank of Capell Creek.

Adverse effects to the California red-legged frog are most likely to be limited to the construction phase of the project. Temporal loss of habitat will result from: the removal and/or disturbance of vegetation within the project footprint; the modification and use of a temporary access road down to the streambed; temporary dewatering of the active work area and temporary rerouting of the creek; exclusion from habitat within the work area; and disruption of connectivity between up and downstream habitat. Construction noise, vibration, and increased human activity during construction may interfere with normal behaviors such as feeding, sheltering, movement between refugia and foraging grounds, and other frog essential behaviors. This can result in avoidance of areas that have suitable habitat but intolerable levels of disturbance.

Unless identified by the biological monitor or site personnel, and rescued by the biological monitor, individual California red-legged frogs exposed during earthwork and vegetation trimming/clearing or moving within active work areas likely will be crushed and killed or injured by construction-related activities. Even with biological monitoring, overall awareness, and proper escape ramps, California red-legged frogs could fall into the trenches, pits, or other excavations, and then risk being directly killed or be unable to escape and be killed due to desiccation, entombment, or starvation. Proper trash disposal is often difficult to enforce and is a common non-compliance issue. Improperly disposed edible trash could attract predators, such as raccoons, crows, and ravens, to the site, which could subsequently prey on the listed amphibian. Caltrans commitment to use erosion control devices other than mono-filament should be effective in avoiding the associated risk of entrapment that can result in death by predation, starvation, or desiccation (Stuart *et al.* 2001). Limiting work within Capell Creek to between June 1 and October 15, primarily avoids the wettest time of year and the onset of the breeding season when frogs are more likely to be involved in dispersal. Caltrans will further minimize adverse effects by: locating much of the construction staging, storage, and parking areas outside of sensitive habitat; clearly marking construction work boundaries with high-visibility fencing; conducting preconstruction surveys and environmental monitoring; and stabilizing and

revegetating temporarily disturbed areas. The amount of take resulting from construction activities will be partially minimized by: installing wildlife exclusion fencing to deter frogs from wandering into construction areas; educating workers; and requiring a Service-approved biologist to be present to monitor construction activities.

If unrestricted, the proposed construction activities could result in the introduction of chemical contaminants to frog habitat. Exposure pathways could include inhalation, dermal contact, direct ingestion, or secondary ingestion of contaminated soil, plants or prey species. Exposure to contaminants could cause short- or long-term morbidity, possibly resulting in reduced productivity or mortality. However, Caltrans proposes to minimize these risks by implementing a SWPPP and erosion control BMPs which will consist of refueling, oiling, or cleaning of vehicles and equipment a minimum of 50 feet from riparian and aquatic areas; installing coir rolls, straw wattles and/or silt fencing to capture sediment and prevent runoff or other harmful chemicals from entering the aquatic habitat; and locating staging, storage and parking areas away from aquatic habitat.

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

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

Installing slope indicators, cleaning of existing drainage pipes, and replacing the earthen roadside ditch with a concrete structure along SR 128 will likely pose limited risk to California red-legged frogs. Staging and access for these activities will be limited to the existing SR 128 roadway and road shoulder. Existing vegetative and underground cover is limited in this work area and associated ground disturbance will be limited. Avoidance of incidental take due to harm is likely for these activities provided adequate biological monitoring and implementation of the other general conservation measures.

Proposed repaving of the local segment of SR 128 will be limited to the existing paved area. This activity is not expected to result in take due to harm provided adequate biological clearance occurs and with the implementation of standard conservation measures.

Gaining access to and working in the Capell Creek bed represents the primary risk to the California red-legged frog. The drilling operation will be located in the creek bed to such an extent that the water flow will be rerouted around the work area. Therefore the proposed activities have the potential to adversely affect all the frogs that occupy the general vicinity; the local aquatic and upland habitat; frogs that would be moving up or downstream through the project footprint; and habitat connectivity. Preparation of the hillside for pipe installation will require the removal of dense riparian vegetation that provides cover and refuge for the listed frog. California red-legged frogs are likely active year-round within the Capell Creek riparian corridor and may be encountered on a daily basis. Work activities are likely to adversely affect the movement, and localized foraging and other behaviors of the red-legged frogs in the riparian corridor. Frogs will most likely be actively moving around, through, or within the work area during the evening when work is not taking place. This places greater emphasis on thorough biological clearance of work areas and under staged equipment and materials prior to the start of each day's activities.

The proposed project does not include road widening or the construction of permanent barriers that would affect frog movement. Therefore, the completion of the proposed project is not expected to result in increased California red-legged frog road mortality or the introduction of barriers to frog movement. Revegetation of disturbed areas will minimize the effects of disturbance by restoring the habitat to baseline conditions. Although a permanent feature of the proposed project, the dissipator pads have the potential to provide California red-legged frog refugia. The spaces between the RSP and the native-species plantings within the pad are likely to provide beneficial cover for the red-legged frog.

Cumulative Effects within the Action Area

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

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

Conclusion

After reviewing the current status of the species, the environmental baseline for the action area; the effects of the proposed Napa SR 128 Horizontal Drains 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 the California red-legged frog.

INCIDENTAL TAKE STATEMENT

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

The measures described below are non-discretionary, and must be implemented by Caltrans so that they become binding conditions of any grant or permit issued to Caltrans as appropriate, in order for the exemption in section 7(o)(2) to apply. Caltrans has a continuing duty to regulate the activity covered by this *Incidental Take Statement.* If Caltrans (1) fails to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, and/or (2) fails to retain oversight to ensure compliance with these terms and conditions, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, Caltrans must report the progress of the action and its impact on the species to the Service as specified in the *Incidental Take Statement* [50 CFR § 402.14(i)(3)].

Amount or Extent of Take

The Service anticipates that incidental take of the California red-legged frog will be difficult to detect due to their wariness, cryptic nature, and the abundance of potential cover sites within the action area. Finding an injured or dead California red-legged frog is unlikely due to their relatively small body size, rapid carcass deterioration, and likelihood that the remains will be removed by a scavenger. Depending on the condition of the carcass, it may be difficult to differentiate between the remains of a California red-legged frog and a foothill yellow-legged frog. Losses of this species may also be difficult to quantify due to a lack of baseline survey data and seasonal/annual fluctuations in their numbers due to environmental or human-caused disturbances. There is a risk of harm, harassment, injury and mortality as a result of the proposed construction activities, the permanent and temporary loss/degradation of suitable habitat, and capture and relocation efforts; therefore, the Service is authorizing take incidental to the proposed action as (1) the injury and mortality of no more than one adult, juvenile, or larval California red-legged frog and (2) the capture, harm and harassment of all California red-legged frogs within the 1.1-acre project area. Upon implementation of the following *Reasonable and Prudent Measures*, California red-legged frogs within the action area in proportion to the amount and type of take outlined above will become exempt from the prohibitions described under section 9 of the Act. No other forms of take are exempted under this opinion.

This BO does not authorize take for California red-legged frog eggs or non-Federal actions associated with use, operation, and maintenance of the drainage system, SR 128, or the associated Caltrans right-of-way. Routine Caltrans' maintenance activities such as the removal/displacement of sand, silt, sediment, debris, rubbish, vegetation, and other obstruction flow; the control of weeds, grasses and emergent vegetation, cleaning and maintaining horizontal drainage pipes, minor repair of existing facilities, RSP replacement, and culvert replacement all have the potential to result in take of California red-legged frog.

Effect of the Take

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

Reasonable and Prudent Measure

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

1. Reduce adverse effects to the California red-legged frog.

Terms and Conditions

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

1. The following Terms and Conditions implement Reasonable and Prudent Measure one (1):

    a. Caltrans shall minimize the potential for harm, harassment, or killing of the California red-legged frog resulting from project related activities by implementing the conservation measures as stated in the *Description of the Proposed Action* of this BO.

    b. Caltrans shall require all contractors to comply with the Act in the performance of the action and shall perform the action as outlined in the *Description of the Proposed Action* of this BO as provided by Caltrans in the September 2012, BA and all other supporting documentation submitted to the Service.

    c. Caltrans shall include language in their contracts that expressly requires contractors and subcontractors to work within the boundaries of the project footprint identified in this BO, including vehicle parking, staging, laydown areas, and access.

    d. Each California red-legged frog encounter shall be treated on a case-by-case basis in coordination with the Service but general guidance is as follows: (1) leave the non-injured frog if it is not in danger or (2) move the frog to a nearby location if it is in danger.

These two options are further described below.

1) When a California red-legged frog is encountered in the action area the first priority is to stop all activities in the surrounding area that have the potential to result in the harm, harassment, injury, or death of the individual. Then the monitor needs to assess the situation in order to select a course of action that will minimize adverse effects to the individual. Contact the Service once the site is secure. The contacts for this situation are Ryan Olah (*ryan_olah@fws.gov*) or John Cleckler (*john_cleckler@fws.gov*). They can also be reached at (916) 414-6600. If you get voicemail messages for these contacts then contact John Cleckler on his cell phone at (916) 712-6784. The issue of contacting people on the weekend or after office hours is addressed later. Contact the Service prior to the start of construction to confirm the status of this contact information.

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

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

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

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

   The release must be coordinated with the Service and will depend on where the individual was found and the opportunities for nearby release. In most situations the release location is likely to be into the mouth of a small burrow or

other suitable refugia and in certain circumstances pools without non-native predators may be suitable.

Only Service-approved biologists for the project can capture California red-legged frogs. Nets or bare hands may be used to capture California red-legged frogs. Soaps, oils, creams, lotions, repellents, or solvents of any sort cannot be used on hands within 2 hours before and during periods when they are capturing and relocating California red-legged frogs. To avoid transferring disease or pathogens between sites during the course of surveys or handling of the frogs, Service-approved biologists must use the following guidance for disinfecting equipment and clothing. These recommendations are adapted from the *Declining Amphibian Population Task Force's Code* (http://www.open.ac.uk/daptf/).

i. All dirt and debris, including mud, snails, plant material (including fruits and seeds), and algae, must be removed from nets, traps, boots, vehicle tires and all other surfaces that have come into contact with water and/or an amphibian. Cleaned items should be rinsed with fresh water before leaving each site.

ii. Boots, nets, traps, etc., must then be scrubbed with either a 70 percent ethanol solution, a bleach solution (0.5 to 1.0 cup of bleach to 1.0 gallon of water), QUAT 128 (quaternary ammonium, use 1:60 dilution), or a 6 percent sodium hypochlorite 3 solution and rinsed clean with water between sites. Avoid cleaning equipment in the immediate vicinity of a pond or wetland. All traces of the disinfectant must be removed before entering the next aquatic habitat.

iii. Used cleaning materials (liquids, etc.) must be disposed of safely, and if necessary, taken back to the lab for proper disposal.

iv. Service-approved biologists must limit the duration of handling and captivity. While in captivity, individual California red-legged frogs shall be kept in a cool, dark, moist, aerated environment, such as a clean and disinfected bucket or plastic container with a damp sponge. Containers used for holding or transporting should not contain any standing water.

Reporting Requirements

Injured California red-legged frogs shall be cared for by a licensed veterinarian or other qualified person such as the on-site biologist; dead individuals must be placed in a sealed plastic bag with the date, time, location of discovery, and the name of the person who found the animal; the carcass should be kept in a freezer; and held in a secure location. The Service shall be notified within one (1) working day of the discovery of death or injury to a California red-legged frog that occurs due to project related activities or is observed at the project site. Notification shall include the date, time, and location of the incident or of the finding of a dead or injured animal

clearly indicated on a USGS 7.5-minute quadrangle and other maps at a finer scale, as requested by the Service, and any other pertinent information. The Service contacts are the Coast-Bay/Forest Foothills Division Chief in the Sacramento Fish and Wildlife Office at (916) 414-6600, and the Resident Agent-in-Charge of the Service's Law Enforcement Division at (916) 569-8444. Sightings of any listed or sensitive animal species should be reported to the CNDDB of the CDFW (http://www.dfg.ca.gov/biogeodata/cnddb/).

Caltrans shall report to the Service any information about take or suspected take of listed wildlife species not authorized by this BO. Caltrans must notify the Service via an email or telephone message within 24 hours of receiving such information. Notification must include the date, time, location of the incident or of the finding of a dead or injured animal, and photographs of the specific animal. The individual animal shall be preserved, as appropriate, and held in a secure location until instructions are received from the Service regarding the disposition of the specimen or the Service takes custody of the specimen. The Service contacts are the Coast-Bay/Forest Foothills Division Chief in the Sacramento Fish and Wildlife Office at (916) 414-6600, and the Resident Agent-in-Charge of the Service's Law Enforcement Division at (916) 569-8444.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities that can be implemented to further the purposes of the Act, such as preservation of endangered species habitat, implementation of recovery actions, or development of information and data bases.

The Service requests notification of the implementation of any conservation recommendations in order to be kept informed of actions minimizing or avoiding adverse effects or benefiting listed species or their habitats. We propose the following conservation recommendation:

1. Caltrans should include a wildlife passage section in their biological assessments with an analysis of the existing passage and how the project will affect passage. The analysis should include identification of the species' resources on both sides of the project boundaries, an appropriately timed road mortality survey to identify "hot spots," and strategic locations where the species could benefit from the enhancement of an existing crossing or the installation of a new crossing. Caltrans should coordinate with their headquarters office and the University of California at Davis Road Ecology Center to develop a passage and road effects approach. Further guidance is provided by FHWA's *Wildlife Vehicle Collision Reduction Study* (http://www.fhwa.dot.gov/environment/hconnect/wvc/index.htm) (FHWA 2008).

REINITIATION--CLOSING STATEMENT

This concludes formal consultation on the proposed Napa SR 128 Horizontal Drains Project. As provided in 50 CFR § 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been maintained (or is authorized by

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

If you have questions concerning this BO on the proposed Napa SR 128 Horizontal Drains Project, please contact John Cleckler, our Caltrans Liaison, or Ryan Olah, Coast-Bay/Forest Foothills Division Chief, at the letterhead address or at (916) 414-6600.

Sincerely,

Jan Knight
Acting Field Supervisor

cc:
Melissa Escaron, California Department of Fish and Wildlife, Yountville, California
Elizabeth Lee, California Regional Water Quality Control Board, Sacramento, California
Paula Gill, U.S. Army Corps of Engineers, San Francisco, California
Charles Walbridge, California Department of Transportation, Fresno, California
Carie Montero, California Department of Transportation, Oakland, California

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DEPARTMENT OF THE ARMY
SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS
1455 MARKET STREET, 16TH FLOOR
SAN FRANCISCO, CALIFORNIA 94103-1398

REPLY TO
ATTENTION OF

Regulatory Division

Subject: File Number 2014-00096N

Mr. Jay Haghparast
Caltrans
855 M Street, Suite 200
Fresno, CA 93721

Dear Mr. Haghparast:

This correspondence is in reference to your submittal received January 7, 2014, concerning Department of the Army (DA) authorization to temporarily discharge133 cubic yards of fill into 0.2 acre of Capell Creek to allow the installation of inclinometers and horizontal drains into a hillside near the State Route (SR) 128 Capell Creek Bridge. The project is located approximately 3.7 miles west of the intersection of SR 128 and 121 at post mile 20.2 where Capell Creek crosses SR 128 in Napa County, California (38.48324N, -122.24135W).

Work within U.S. Army Corps of Engineers' (Corps) jurisdiction shall be limited to temporary work within Capell Creek. The creek shall be de-watered for a length of less than 250 linear feet using a temporary coffer dam (built from 80 cubic-yards of sandbags and a 36" diameter by 150' long bypass pipe). Two temporary construction pads (330 square feet [sqft] and 305sqft in size) shall be constructed below the Ordinary High Water Mark (OHWM) of Capell Creek to allow construction equipment access to the project site. All work shall be completed in accordance with the plans and drawings titled "USACE File #2014-00096N, Capell Creek Horizontal Drains SR 128 04-3G760, Figure 1."

Section 404 of the Clean Water Act (CWA) generally regulates the discharge of dredged or fill material below the plane of ordinary high water in non-tidal waters of the United States, below the high tide line in tidal waters of the United States, and within the lateral extent of wetlands adjacent to these waters. Section 10 of the Rivers and Harbors Act generally regulates construction of structures and work, including excavation, dredging, and discharges of dredged or fill material, occurring below the plane of mean high water in tidal waters of the United States; in former diked baylands currently below mean high water; outside the limits of mean high water but affecting the navigable capacity of tidal waters; or below the plane of ordinary high water in non-tidal waters designated as navigable waters of the United States. Navigable waters of the United States generally include all waters subject to the ebb and flow of the tide; and/or all waters presently used, or have been used in the past, or may be susceptible for future use to transport interstate or foreign commerce. A Preliminary Jurisdictional Determination (JD) has been completed for your site. Preliminary JDs are written indications that there may be

waters of the U.S. on a parcel or indications of the approximate location(s) of waters of the U.S. on a parcel. Preliminary JDs are advisory in nature and may not be appealed.

Based on a review of the information in your submittal, the project qualifies for authorization under Department of the Army Nationwide Permit (NWP) 13 for Bank Stabilization, 77 Fed. Reg. 10,184, February 21, 2012, (enclosure 2), pursuant to Section 404 of the CWA of 1972, as amended (33 U.S.C. § 1344 *et seq.*). The project must be in compliance with the terms of the NWP, the general conditions of the Nationwide Permit Program, and the San Francisco District regional conditions cited in enclosure 3. You must also be in compliance with any special conditions specified in this letter for the NWP authorization to remain valid. Non-compliance with any term or condition could result in the revocation of the NWP authorization for your project, thereby requiring you to obtain an Individual Permit from the Corps. This NWP authorization does not obviate the need to obtain other State or local approvals required by law.

This verification will remain valid until March 18, 2017, unless the NWP authorization is modified, suspended, or revoked. Activities which have commenced (i.e., are under construction) or are under contract to commence in reliance upon a NWP will remain authorized provided the activity is completed within 12 months of the date of a NWP's expiration, modification, or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 C.F.R. § 330.4(e) and 33 C.F.R. §§ 330.5 (c) or (d). This verification will remain valid if, during the time period between now and March 18, 2017, the activity complies with any subsequent modification of the NWP authorization. The Chief of Engineers will periodically review NWPs and their conditions and will decide to either modify, reissue, or revoke the permits. If a NWP is not modified or reissued within five years of its effective date, it automatically expires and becomes null and void. It is incumbent upon you to remain informed of any changes to the NWPs. Changes to the NWPs would be announced by Public Notice posted on our website (http://www.spn.usace.army.mil/Missions/Regulatory.aspx). Upon completion of the project and all associated mitigation requirements, you shall sign and return the Certification of Compliance, enclosure 4, verifying that you have complied with the terms and conditions of the permit.

You shall comply with all terms and conditions set forth by the technically conditioned water quality certification "*California Department of Transportation, Napa 128 Horizontal Drains Project (WDID#5A28CR00020), Napa County*" issued by the Central Valley, Regional Water Quality Control Board on March 20, 2014 (enclosure 5). You shall consider such conditions to be an integral part of the NWP authorization for your project.

In order to ensure compliance with this NWP authorization, the following special conditions shall be implemented:

1. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, if temporary structures, work, and discharges, including cofferdams, are required.

2. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows.

3. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations.

4. To remain exempt from the prohibitions of Section 9 of the Endangered Species Act, the non-discretionary Terms and Conditions for incidental take of federally-listed California red-legged frog shall be fully implemented as stipulated in the Biological Opinion entitled, "Biological Opinion for the Proposed Napa State Route 128 horizontal Drains Project, Napa County, California (Caltrans EA 04-3G760)" (pages 1 to 34) dated May 9, 2013. Project authorization under the NWP is conditional upon compliance with the mandatory terms and conditions associated with incidental take. Failure to comply with the terms and conditions for incidental take, where a 'take' of a federally-listed species occurs, would constitute an unauthorized take and non-compliance with the NWP authorization for your project. The USFWS is, however, the authoritative federal agency for determining compliance with the incidental take statement and for initiating appropriate enforcement actions or penalties under the Endangered Species Act.

5. All work occurring below the plane of ordinary high water shall be confined to the low-flow period, during summer months to avoid excessive sedimentation of creek waters.

6. Authorized discharges of fill material occurring below ordinary high water shall consist solely of sand, gravel, cobble, boulder, rock or other inert riprap materials that are free of toxic pollutants.

7. A post construction report shall be submitted 45 days after the conclusion of construction activities. The report shall document construction activities and contain as-built drawings (if different from drawings submitted with application) and include before and after photographs.

8. All site access will occur through existing access roads.

You may refer any questions on this matter to David Wickens of my Regulatory staff by telephone at 415-503-6787 or by e-mail at david.m.wickens@usace.army.mil. All

correspondence should be addressed to the Regulatory Division, North Branch, referencing the file number at the head of this letter.

The San Francisco District is committed to improving service to our customers. My Regulatory staff seeks to achieve the goals of the Regulatory Program in an efficient and cooperative manner, while preserving and protecting our nation's aquatic resources. If you would like to provide comments on our Regulatory Program, please complete the Customer Service Survey Form available on our website: http://www.spn.usace.army.mil/Missions/Regulatory.aspx

Sincerely,

Jane M. Hicks
Chief, Regulatory Division

Enclosures

Copies Furnished (w/o encls):

U.S. EPA, San Francisco, CA
CA SWRCB, Sacramento, CA

20 March 2014

Jay Haghparast
California Department of Transportation
2015 E. Shields Avenue Suite 100
Fresno, CA 93726

CERTIFIED MAIL
7013 1710 0002 3644 1745

CLEAN WATER ACT §401 TECHNICALLY CONDITIONED WATER QUALITY CERTIFICATION; CALIFORNIA DEPARTMENT OF TRANSPORTATION, NAPA 128 HORIZONTAL DRAINS PROJECT (WDID#5A28CR00020), NAPA COUNTY

This Order responds to the 17 January 2014 application submitted by California Department of Transportation (Applicant) for the Water Quality Certification of a highway repair project temporarily impacting 0.21 acre/221 linear feet of waters of the United States.

This Order serves as certification of the United States Army Corps of Engineers' Permit (SPN# 2014-00096N) under § 401 of the Clean Water Act, and a Waste Discharge Requirement under the Porter-Cologne Water Quality Control Act and State Water Board Order 2003-0017-DWQ.

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.

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, 4)
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	—

(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.
(4) A hand-held field meter may be used, provided the meter utilizes a USEPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring shall be maintained onsite.

Surface water monitoring shall occur at mid-depth. 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." with the Notice of Completion.

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 and 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.

6. The Applicant shall notify the Central Valley Water Board immediately if the above criteria for turbidity and settleable matter, 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 spill response and prevention measures for potential spills that may occur within the project site.

10. 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.

11. 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).

12. All areas disturbed by project activities shall be protected from washout and erosion.

13. All temporarily affected areas shall be restored to pre-construction contours and conditions upon completion of construction activities.

14. All materials resulting from the project shall be removed from the site and disposed of properly.

15. 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.

16. 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.

17. 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.

18. 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.

19. The discharge of petroleum products, 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 to surface water and/or soil is prohibited. In the event of a prohibited discharge, the Applicant shall notify the Central Valley Water Board Contact within 24-hours of the discharge. Activities shall not cause visible oil, grease, or foam in the receiving water.

20. The Applicant shall submit a copy of the final, signed and dated Lake or Streambed Alteration Agreement issued by the California Department of Fish and Wildlife within 14 days of issuance to the Central Valley Water Board Contact indicated in this Certification.

21. The Applicant shall comply with all California Department of Fish and Wildlife requirements, including, but not limited to, those requirements described in the Lake or Streambed Alteration Agreement.

22. 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 (08ESMF00-2012-F-0663-3), provided to the California Department of Transportation, dated 9 May 2013.

23. The Applicant shall obtain coverage under the National Pollutant Discharge Elimination System (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.

24. 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.

25. 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.

26. 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 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.

27. 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 approved amendments. 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.

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
trevor.cleak@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 Napa 128 Horizontal Drains Project pursuant to § 21000 et seq. of the Public Resources Code. The California Department of Transportation approved the Mitigated Negative Declaration on 27 September 2011. The California Department of Transportation filed a Notice of Determination with the State Clearinghouse on 3 June 2013 (State Clearinghouse Number 2013022053).

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 to State waters 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, Napa 128 Horizontal Drains Project (WDID#5A28CR00020) 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.

for Pamela C. Creedon
Executive Officer

Enclosure: Project Information Sheet

Attachment: Figure 1 – Project Location Map

cc: Distribution List, page 13

PROJECT INFORMATION SHEET

Application Date: 17 January 2014

Applicant: Jay Haghparast
California Department of Transportation
2015 E. Shields Avenue, Suite 100
Fresno, CA 93726

Applicant Representative: Cyrus Vafai
California Department of Transportation
111 Grand Avenue
Oakland, CA 94612

Project Name: Napa 128 Horizontal Drains Project

Application Number: WDID#5A28CR00020

Date Application Deemed Complete: 14 March 2014

Type of Project: Highway repair

Timeframe of Project Implementation: 16 June through 16 September

Project Location: Section 6, Township 7 North, Range 3 West, MDB&M.
Latitude: 38°29'0.66" N and Longitude: 122°14'28.52" W

County: Napa County

Receiving Water(s) (hydrologic unit): Capell Creek, Sacramento Hydrologic Basin, Putah Creek Hydrologic Unit #512.22, Capell Creek HSA

Water Body Type: Streambed

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: Capell Creek is the receiving water for the Napa 128 Horizontal Drains Project. Capell Creek, is on the 303(d) list for Escherichia coli. This project, as conditioned with mitigation measures to prevent transport of sediment due to project activities, will minimize impacts to Capell Creek. 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 Napa 128 Horizontal Drains Project (Project) consists of unclogging the existing drainage pipes located on a hill north of Capell Creek Bridge. The Project is located on State Route 128, approximately 1.1 miles south of the intersection of State Route 128 and Knoxville Road in Napa County.

Project activities will require the following: (1) geotechnical core drilling; (2) inclinometers installation; (3) new concrete gutter installation; (4) new horizontal drains; and (5) construction of a temporary access road. Project activities (1) – (4) will be conducted above the ordinary high water mark and will not impact waters of the United States.

A temporary access road will be constructed across Capell Creek to access the Project area. Capell Creek will be dewatered using a cofferdam, and the water will be diverted using a 36-inch diameter pipe. Wooden mats will be placed, and then approximately 80 cubic yards of gravel bags and 48 cubic yards of gravel will be temporarily placed into 0.21 acre of waters of the United States to stabilize the dewatered construction access road. No wet concrete will be placed into waters of the United States.

The Project will temporarily impact 0.21 acre/221 linear feet of waters of the United States.

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

Proposed Mitigation to Address Concerns: The Applicant will implement Best Management Practices to control sedimentation and erosion. The Applicant will conduct turbidity and settleable matter testing during in-water work, stopping work if Basin Plan criteria are exceeded or observations indicate an exceedance of a water quality objective. All temporary affected areas will be restored to pre-construction contours and conditions upon completion of construction activities to provide 1:1 mitigation for temporary impacts.

Excavation/Fill Area: Approximately 80 cubic yards of gravel bags and 48 cubic yards of gravel will be temporarily placed into 0.21 acre of waters of the United States.

Dredge Volume: None

California Integrated Water Quality System Impact Data: The Project will temporarily impact 0.21 acre/ 221 linear feet of stream bed from fill activities.

Table 2: Impacts from Fill Activities

Water Feature Type	Permanent			Temporary		
	Acre(s)	Linear Feet	Cubic Yards	Acre(s)	Linear Feet	Cubic Yards
Stream Channel						
Capell Creek	-	-	-	0.21	221	128
Total Impacts	**-**	**-**	**-**	**0.21**	**221**	**128**

United States Army Corps of Engineers File Number: SPN #2014-00096N

United States Army Corps of Engineers Permit Type: Unknown

California Department of Fish and Wildlife Lake or Streambed Alteration Agreement: The Applicant applied for a Lake or Streambed Alteration Agreement on 17 October 2013.

Possible Listed Species: California red-legged frog

Status of CEQA Compliance: The California Department of Transportation approved the Mitigated Negative Declaration on 27 September 2011. The California Department of Transportation filed a Notice of Determination with the State Clearinghouse on 3 June 2013 (State Clearinghouse Number 2013022053).

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

Compensatory Mitigation: The Central Valley Water Board is not requesting compensatory mitigation for the Napa 128 Horizontal Drains Project.

Application Fee Provided: Total fees of $1,355.00 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

Paula Gill
United States Army Corps of Engineers
San Francisco District Office
Regulatory Division
1455 Market St #16
San Francisco, CA 94103

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

Melissa Escaron
Department of Fish and Wildlife
7329 Silverado Trail
Napa, CA 94558

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

Cyrus Vafai
California Department of Transportation
111 Grand Avenue
Oakland, CA 94612

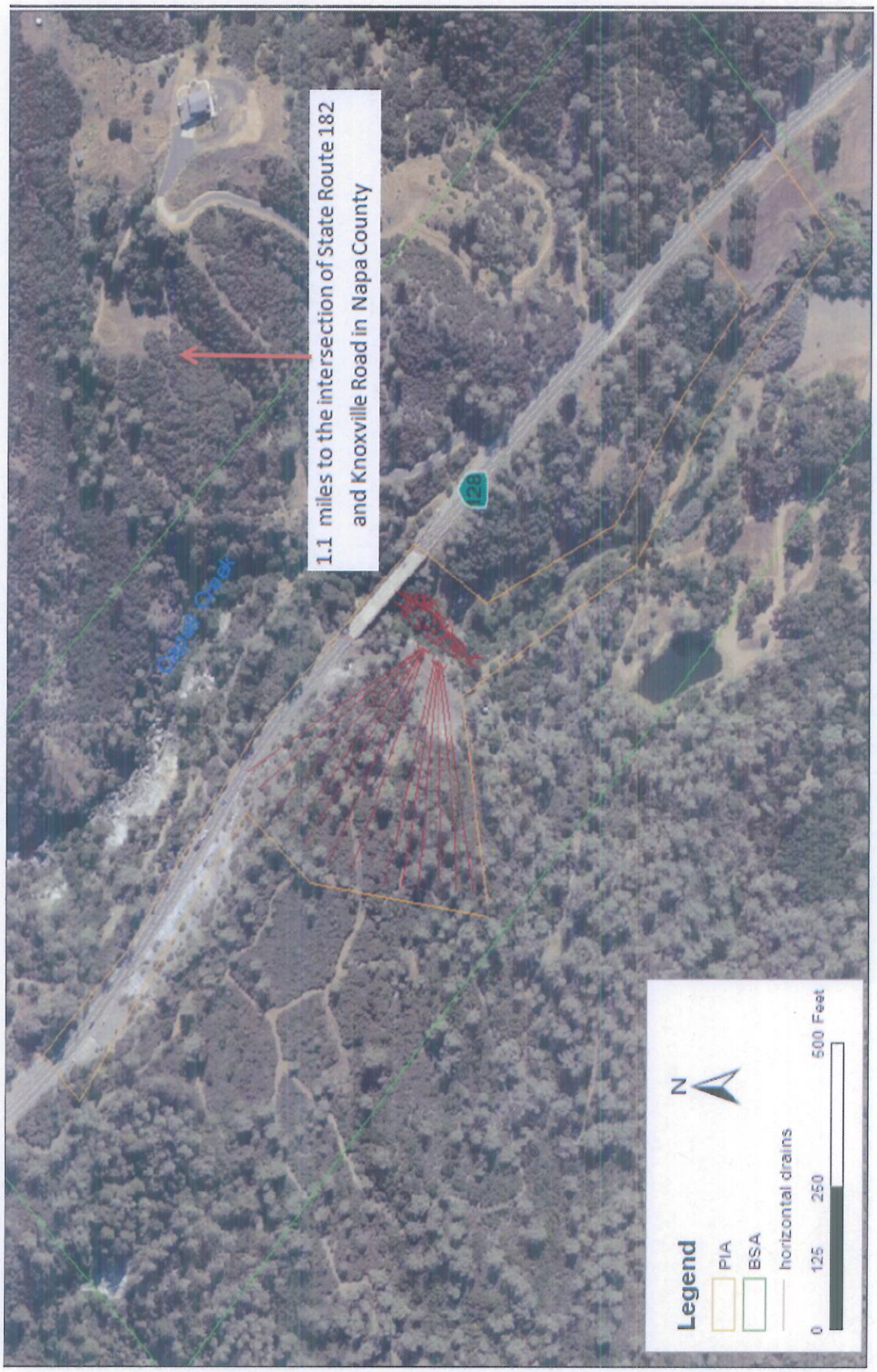


Figure 1 – Project Location Map

State of California – The Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Bay Delta Region
7329 Silverado Trail
Napa, CA 94558
(707) 944-5500
www.wildlife.ca.gov

EDMUND G. BROWN JR., *Governor*
CHARLTON H. BONHAM, *Director*

June 16, 2014

Mr. Javier Almaguer
California Department of Transportation
855 M Street, Suite 200
Fresno, CA 93721

Subject: Final Lake or Streambed Alteration Agreement
Notification No. 1600-2013-0399-R3
CAPELL CREEK HORIZONTAL DRAINS PROJECT

Dear Mr. Almaguer:

Enclosed is the final Streambed Alteration Agreement ("Agreement") for the Capell Creek Horizontal Drains Project ("Project"). Before the 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 June 16, 2014 based on information contained in the 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 Melissa Escaron, Senior Environmental Scientist (Specialist), at (925)786-3045 or melissa.escaron@wildlife.ca.gov.

Sincerely,

Craig J. Weightman
Environmental Program Manager
Bay Delta Region

cc: Dane Dettloff – dane.dettloff@dot.ca.gov
Lieutenant Jones.
Warden Monroe

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
BAY DELTA REGION
7329 SILVERADO TRAIL
NAPA, CALIFORNIA 94558
(707) 944-5500
WWW.WILDLIFE.CA.GOV

STREAMBED ALTERATION AGREEMENT
NOTIFICATION NO. 1600-2013-0399-R3
Capell Creek

CALIFORNIA DEPARTMENT OF TRANSPORTATION

This Streambed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Wildlife (CDFW) and the California Department of Transportation (Permittee), as represented by Mr. Javier Almaguer.

RECITALS

WHEREAS, pursuant to Fish and Game Code (FGC) section 1602, Permittee notified CDFW on August 29, 2013 that Permittee intends to complete the project described herein.

WHEREAS, pursuant to FGC section 1603, CDFW 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

This Project is located Napa County about 4 miles east of Route 128 and Route 121 intersection at Capell Creek.

PROJECT DESCRIPTION

The Project would install slide monitoring equipment into the hillside. To accommodate this work, core drilling into the hillside would be required and steel pipes (6-inch diameter, 36 feet long) with gauges would be placed inside the bore hole to measure the movement of the slide. Additionally 12 new 3-inch diameter horizontal drains will be drilled into the north bank of Capell Creek to a depth of 200 feet to remove additional water from the soil. The drains would be installed at two locations close to the Capell

Creek requiring temporary dewatering of Capell Creek for construction access. Cofferdams made from gravel filled bags, plastic sheeting, and a water diversion pipe will dewater the work area. Staging of equipment and materials will be located within Capell Creek, outside of the live stream, once the water diversion is in place. Access will be from an existing dirt road down to the creek. Two 15x20-foot concrete pads will be built into the bank to provide construction pads to place drilling equipment and dissipaters for water exiting the drains to prevent erosion into the creek.

Shortly after the construction of this project the upcoming Capell Bridge Replacement Project will take place using the same construction access route. Accordingly, the areas of temporary impacts will be stabilized with erosion control measures and hydroseeded. A more detailed onsite planting effort will be implemented during the Bridge Replacement project.

PROJECT IMPACTS

Approximately 0.4 acre of mature riparian vegetation consisting mainly of willows and alders will be removed from the construction area. About 0.12 acre of creek bed will be temporarily affected by placement of gravel bags to allow for movement of equipment and materials into Capell Creek.

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 CDFW 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 CDFW 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, CDFW shall contact Permittee to resolve any conflict.

1.4 Project Site Entry. Permittee agrees that CDFW personnel may enter the project site, at any time to verify compliance with the Agreement.

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 All work within riparian zones shall occur between June 15 and October 15.

2.2 At least 30-days prior to commencing Project activities covered by this Agreement, the Permittee shall submit to CDFW, for review and approval, the qualifications for a number of biologists (Qualified Biologist) that shall oversee the implementation of the conditions in this Agreement. At a minimum, the Qualified Biologists shall have a combination of academic training and professional experience in biological sciences and related resource management activities. The Qualified Biologists shall communicate to the Resident Engineer when any activity is not in compliance with this Agreement and the Resident Engineer shall immediately stop the activity that is not in compliance with this Agreement.

2.3 Before the onset of construction activities, a Qualified Biologist shall conduct an education program for all construction personnel. At a minimum the training will include a description of California red legged frog, migratory birds, bats, and their habitats; the occurrence of these species within the Project site; an explanation of their state and federal statuses; avoidance and minimization measures; habitats as they relate to the Project site; and boundaries within which construction may occur. A fact sheet conveying this information will be prepared and distributed to all construction crews and Project personnel entering the Project site. Upon completion of the program, personnel will sign a form stating that they attended the program and understand all the avoidance and minimization measures.

2.4 A Qualified Biologist shall conduct clearance surveys and be on-site during all activities that may result in the take of California red-legged frog (CRLF). The Qualified Biologist shall stop work through the Resident Engineer if activities are identified that may result in the take of CRLF.

2.5 Preconstruction surveys for the western pond turtle in potential habitat shall be conducted 48 hours prior to construction by a Qualified Biologist. If western

pond turtles are found in the project area during preconstruction surveys, CDFW shall be notified. If preconstruction surveys identify active western pond turtle nests, a Qualified Biologist shall establish a no-disturbance buffer zone around the nest using temporary orange construction fencing. The radius of the buffer zone and the duration of the exclusion shall be determined in consultation with CDFW. The buffer zone and fencing shall remain in place until the young have left the nest, as determined by a Qualified Biologist. The Qualified Biologist shall also remain present during construction in the area to inspect the work area, including construction equipment left on-site, for western pond turtles to ensure that individuals have not moved into the work area.

2.6 Prior to the start of construction Environmentally Sensitive Areas (ESAs) shall be clearly delineated using high-visibility orange fencing to protect sensitive habitats. The ESA fencing will remain in place throughout the duration of the Project. The final Project plans will depict all locations where ESA fencing will be installed and how it will be installed. The bid solicitation package special provisions will clearly describe acceptable fencing material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbing activities within ESAs. ESA fencing shall be erected as directed by a Qualified Biologist.

2.7 If Project activities will occur between February 15 and September 1, a Qualified Biologist shall conduct pre-construction surveys for nesting birds no more than one week prior to construction. Surveys shall consist of multiple days of observations. If nests are found the Qualified Biologist shall establish an appropriate buffer to be in compliance with Migratory Bird Treaty Act (MBTA) and Fish and Game Code 3503. The Qualified Biologist shall perform at least two hours of pre-construction monitoring of the nest to characterize "typical" bird behavior. The Qualified Biologist shall monitor the nesting birds and shall increase the buffer if the Qualified Biologist determines the birds are showing signs of unusual or distressed behavior by Project activities. Atypical nesting behaviors which may cause reproductive harm include, but are not limited to, defensive flights/vocalizations directed towards Project personnel, standing up from a brooding position, and flying away from the nest. The Qualified Biologist shall have authority, through the Resident Engineer, to order the cessation of all Project activities if the nesting birds exhibit atypical behavior which may cause reproductive failure (nest abandonment and loss of eggs and/or young) until an appropriate buffer is established. To prevent encroachment, the established buffer(s) shall be clearly marked by high visibility material. The established buffer(s) shall remain in effect until the young have fledged or the nest has been abandoned as confirmed by the Qualified Biologist. Any sign of nest abandonment shall be reported to CDFW within 48 hours.

2.8 To prevent inadvertent entrapment of animals during construction, all excavated, steep-walled holes or trenches more than 2-feet deep will be covered at the close of each working day by plywood or similar materials, or

provided with one or more escape ramps constructed of earth fill or wooden planks at an angle no greater than 30 degrees. Before such holes or trenches are filled they must be thoroughly inspected for trapped animals. All replacement pipes, culverts, or similar structures stored in the action area overnight will be inspected before they are subsequently moved, capped and/or buried.

2.9 Permittee shall conduct work defined in the above Project Description, and within the Project area, during periods of dry weather. The Project area is defined as the bed, bank, channel, and associated wetland habitat. The Permittee shall monitor forecasted precipitation. When ¼ inch or more of precipitation is forecasted to occur, the Permittee shall stop work before precipitation commences. No Project activities may be started if its associated erosion control measures cannot be completed prior to the onset of precipitation. After any storm event, the Permittee shall inspect all sites currently under construction and all sites scheduled to begin construction within the next 72 hours for erosion and sediment problems and take corrective action as needed. Seventy-two hour weather forecasts from National Weather Service shall be consulted and work shall not start back up until runoff ceases and there is less than a 30% forecast for precipitation for the following 24-hour period.

2.10 Where practicable, Permittee shall install willow cuttings where the water table is high enough to sustain the willows without supplementary irrigation.

2.11 Permittee shall utilize erosion control measures throughout all phases of operation where sediment runoff from exposed slopes threatens to enter waterways. At no time shall silt laden runoff be allowed to enter the stream or directed to where it may enter the stream. Erosion control installations shall be monitored for effectiveness and shall be repaired or replaced as recommended by a Qualified Biologist or Water Quality Monitor to the Resident Engineer. As needed to prevent sediment transport, Permittee shall deploy soil stabilizer such as hydroseeding, netting, erosion control mats, mulch, fiber rolls, silt fences, check dams, and flow velocity dissipation devices. Permittee shall stabilize and equip construction site entrances and exits with tire washing capability. Materials containing monofilament or plastic shall not be used. Erosion and sediment control measures shall be installed prior to unseasonable rain storms.

2.12 All disturbed areas shall be re-graded and hydroseeded. Hydroseed shall not contain invasive exotic plant species. Prohibited exotic plant species include those identified in the California Exotic Pest Plant Council's database, which is accessible at: http://www.cal ipc.org/ip/inventory/weedlist.php.

2.13 Staging and storage areas for equipment, materials, fuels, lubricants and solvents, shall be located outside of the creek channel and banks. Stationary equipment such as motors, pumps, generators, compressors and welders,

located within or adjacent to the creek shall be positioned over drip pans. Any equipment or vehicles driven and/or operated within or adjacent to the stream must be checked and maintained daily, to prevent leaks of materials that if introduced to water could be deleterious to aquatic life.

2.14 Refueling of mobile construction equipment and vehicles shall not occur within 50 feet of any water body, or anywhere that spilled fuel could drain to a water body. Refueling of stationary equipment requiring breakdown and setup to move will remain in place. All equipment shall be refueled with appropriate drip pans, absorbent pads, and water quality Best Management Practices. Equipment and vehicles operating in the Project site shall be checked and maintained daily to prevent leaks of fuels, lubricants, or other liquids.

2.15 Permittee shall comply with all applicable state and federal laws, including the California and Federal Endangered Species Act. This Agreement does not authorize the take of any state or federally endangered listed species. Liability for any take or incidental take of such species remains the responsibility of the Permittee for the duration of the Project. Any unauthorized take of listed species may result in prosecution and nullification of the Agreement. This Agreement does not authorize the capture or relocation of Fully Protected Species.

3. Mitigation Measures

3.1 Permittee shall mitigate with a minimum of 1.2 acres of riparian habitat that is approved in writing by CDFW no later than 18 months after the start of Project construction. At the issuance of this Agreement CDFW has not approved an offsite mitigation location. Prior to ground disturbance, Permittee shall submit, for review and written approval, a detailed Offsite Habitat Mitigation Plan for plant and tree mitigation that cannot be accommodated onsite. The Habitat Mitigation Plan shall mitigate 0.4 acres of temporary riparian habitat impacts at a minimum of a 3:1 acreage ratio. Mitigation shall be based on all trees regardless of diameter at breast height. The Habitat Mitigation Plan shall include proposed mitigation locations, a plant palette of native species to be used, success criteria, a monitoring and reporting schedule, and corrective actions to be taken if mitigation measures do not meet the approved success criteria. The Permittee shall monitor the survival and vigor of offsite plantings for a period of 5 years to ensure attainment of 70% survivorship. Offsite mitigation may include a combination of habitat restoration, creation, enhancement, and/or preservation of habitat that will support a similar riparian plant community found at the project site. All plantings shall be derived from locally available genotypes. This mitigation will offset long term temporary impacts associated with this Project, and the aforementioned Capell Creek Bridge Replacement Project. Any additional mitigation needs associated with the Capell Creek Bridge Replacement Project, as well as an Onsite Revegetation Plan, will be addressed through a separate Streambed Alteration Agreement process.

CONTACT INFORMATION

Any communication that Permittee or CDFW 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 CDFW specifies by written notice to the other.

To Permittee:

California Department of Transportation
Mr. Javier Almaguer
855 M Street, Suite 200
Fresno, Ca 93721
javier.almaguer@dot.ca.gov

To CDFW:

California Department of Fish and Wildlife
Bay Delta Region
7329 Silverado Trail
Napa, California 94558
Attn: Lake and Streambed Alteration Program – Melissa Escaron
Notification #1600-2013-0399-R3
Fax (707) 944-5553
Melissa.escaron@wildlife.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 CDFW'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

CDFW 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 CDFW 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 CDFW 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 CDFW to issue the notice.

ENFORCEMENT

Nothing in the Agreement precludes CDFW 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 CDFW'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

CDFW may amend the Agreement at any time during its term if CDFW 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 CDFW and Permittee. To request an amendment, Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the corresponding amendment fee identified in CDFW'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 CDFW 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 CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the minor amendment fee identified in CDFW'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 CDFW a completed CDFW "Request to Extend Lake or Streambed Alteration" form and include with the completed form payment of the extension fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5). CDFW 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 CDFW's signature, which shall be: 1) after Permittee's signature; 2) after CDFW 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.wildlife.ca.gov/habcon/ceqa/ceqa_changes.html.

TERM

This Agreement shall expire on December 31, 2018 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.

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 CDFW in accordance with FGC section 1602.

CONCURRENCE

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

FOR CALIFORNIA DEPARTMENT OF TRANSPORTATION

Javier Almaguer
Branch Chief

6/10/2014
Date

FOR DEPARTMENT OF FISH AND WILDLIFE

Craig J. Weightman
Environmental Program Manager

6/16/14
Date

Prepared by: Melissa Escaron
Staff Environmental Scientist

Date Sent: June 3, 2014
Revised: June 10, 2014

FOR DEPARTMENT USE ONLY				
Date Received	Amount Received	Amount Due	Date Complete	Notification No.
10/18/13	$4482.75	$		1600-2013-0399-3

V# 082-2867520 Escarron
Bill Lockyer, Treasurer
H. Jones
Wdn Monroe

STATE OF CALIFORNIA
DEPARTMENT OF FISH AND WILDLIFE

NOTIFICATION OF LAKE OR STREAMBED ALTERATION

Complete EACH field, unless otherwise indicated, following the enclosed instructions and submit ALL required enclosures. Attach additional pages, if necessary.

Fish & Game
OCT 18 2013
Yountville

1. APPLICANT PROPOSING PROJECT

Name	Javier Almaguer		
Business/Agency	Caltrans		
Street Address	855 M Street, Suite 200		
City, State, Zip	Fresno, CA 93721		
Telephone	559-445-6460	Fax	
Email	javier.almaguer@dot.ca.gov		

2. CONTACT PERSON (*Complete only if different from applicant*)

Name	Dane Dettloff		
Street Address	855 M Street, Suite 200		
City, State, Zip	Fresno, CA 93721		
Telephone	559-445-6458	Fax	
Email	dane.dettloff@dot.ca.gov		

3. PROPERTY OWNER (*Complete only if different from applicant*)

Name			
Street Address			
City, State, Zip			
Telephone		Fax	
Email			

4. PROJECT NAME AND AGREEMENT TERM

A. Project Name	Capell Creek Horizontal Drains			
B. Agreement Term Requested	☑ Regular (*5 years or less*) ☐ Long-term (*greater than 5 years*)			
C. Project Term		D. Seasonal Work Period		E. Number of Work Days
Beginning (*year*)	Ending (*year*)	Start Date (*month/day*)	End Date (*month/day*)	
2013	2017	06/16/2014	09/16/2014	60

5. AGREEMENT TYPE

Check the applicable box. If box B, C, D, or E is checked, complete the specified attachment.		
A.	☑ Standard *(Most construction projects, excluding the categories listed below)*	
B.	☐ Gravel/Sand/Rock Extraction (*Attachment A*)	*Mine I.D. Number:* _____
C.	☐ Timber Harvesting (*Attachment B*)	THP *Number:* _____
D.	☐ Water Diversion/Extraction/Impoundment (*Attachment C*)	*SWRCB Number:* _____
E.	☐ Routine Maintenance (*Attachment D*)	
F.	☐ CDFW Fisheries Restoration Grant Program (FRGP)	*FRGP Contract Number* _____
G.	☐ Master	
H.	☐ Master Timber Harvesting	

6. FEES

Please see the current fee schedule to determine the appropriate notification fee. Itemize each project's estimated cost and corresponding fee. ***Note: The Department may not process this notification until the correct fee has been received.***

	A. Project	B. Project Cost	C. Project Fee
1	Capell Creek Horizontal Drains	$635,000	$4,482.75
2			
3			
4			
5			
		D. Base Fee *(if applicable)*	
		E. TOTAL FEE ENCLOSED	$4,482.75

7. PRIOR NOTIFICATION OR ORDER

A. Has a notification previously been submitted to, or a Lake or Streambed Alteration Agreement previously been issued by, the Department for the project described in this notification?

☐ Yes (*Provide the information below*) ☑ No

Applicant: _____ Notification Number: _____ Date: _____

B. Is this notification being submitted in response to an order, notice, or other directive ("order") by a court or administrative agency (including the Department)?

☑ No ☐ Yes (*Enclose a copy of the order, notice, or other directive. If the directive is not in writing, identify the person who directed the applicant to submit this notification and the agency he or she represents, and describe the circumstances relating to the order.*)

☐ *Continued on additional page(s)*

8. PROJECT LOCATION

A. Address or description of project location.

(Include a map that marks the location of the project with a reference to the nearest city or town, and provide driving directions from a major road or highway)

IN NAPA COUNTY ABOUT 3.7 MILES EAST OF ROUTE 128 AND ROUTE 121 INTERSECTION AT CAPELL CREEK.

☐ *Continued on additional page(s)*

B. River, stream, or lake affected by the project.	Capell Creek
C. What water body is the river, stream, or lake tributary to?	Lake Berryessa
D. Is the river or stream segment affected by the project listed in the state or federal Wild and Scenic Rivers Acts?	☐ Yes ☑ No ☐ Unknown
E. County	Napa

F. USGS 7.5 Minute Quad Map Name	G. Township	H. Range	I. Section	J. ¼ Section
Capell Valley	07N	03W	6	

☐ *Continued on additional page(s)*

K. Meridian (*check one*) ☐ Humboldt ☑ Mt. Diablo ☐ San Bernardino

L. Assessor's Parcel Number(s)

59763-1

☐ *Continued on additional page(s)*

M. Coordinates (*If available, provide at least latitude/longitude or UTM coordinates and check appropriate boxes)*

Latitude/Longitude	*Latitude:* 38.48324	*Longitude:* -122.24135	
	☐ Degrees/Minutes/Seconds	☑ Decimal Degrees	☐ Decimal Minutes
UTM	*Easting:* 2089808.121	*Northing:* 239754.527	☑ Zone 10 ☐ Zone 11
Datum used for Latitude/Longitude or UTM	☐ NAD 27	☑ NAD 83 or WGS 84	

9. PROJECT CATEGORY AND WORK TYPE *(Check each box that applies)*

PROJECT CATEGORY	NEW CONSTRUCTION	REPLACE EXISTING STRUCTURE	REPAIR/MAINTAIN EXISTING STRUCTURE
Bank stabilization – bioengineering/recontouring	☐	☐	☐
Bank stabilization – rip-rap/retaining wall/gabion	☐	☐	☐
Boat dock/pier	☐	☐	☐
Boat ramp	☐	☐	☐
Bridge	☐	☐	☐
Channel clearing/vegetation management	☑	☐	☐
Culvert	☐	☐	☐
Debris basin	☐	☐	☐
Dam	☐	☐	☐
Diversion structure – weir or pump intake	☑	☐	☐
Filling of wetland, river, stream, or lake	☑	☐	☐
Geotechnical survey	☐	☐	☐
Habitat enhancement – revegetation/mitigation	☑	☐	☐
Levee	☐	☐	☐
Low water crossing	☐	☐	☐
Road/trail	☐	☐	☐
Sediment removal – pond, stream, or marina	☐	☐	☐
Storm drain outfall structure	☐	☐	☐
Temporary stream crossing	☑	☐	☐
Utility crossing : Horizontal Directional Drilling	☐	☐	☐
Jack/bore	☐	☐	☐
Open trench	☐	☐	☐
Other *(specify)*: Bank Stabilization Via Horizontal Drains	☑	☐	☐

10. PROJECT DESCRIPTION

A. Describe the project in detail. Photographs of the project location and immediate surrounding area should be included.

- Include any structures (e.g., rip-rap, culverts, or channel clearing) that will be placed, built, or completed in or near the stream, river, or lake.
- Specify the type and volume of materials that will be used.
- If water will be diverted or drafted, specify the purpose or use.

Enclose diagrams, drawings, plans, and/or maps that provide all of the following: site specific construction details; the dimensions of each structure and/or extent of each activity in the bed, channel, bank or floodplain; an overview of the entire project area (i.e., "bird's-eye view") showing the location of each structure and/or activity, significant area features, and where the equipment/machinery will enter and exit the project area.

The proposed project would achieve three objectives:
1. Install additional slope indicators to gather more complete data on the movement of the slide. Core drilling into the hillside would be required and steel pipes (6" diameter/36" long) with gauges would be placed inside the bore hole to measure the movement of the slide.
2. Clean the existing horizontal drains that have become clogged to enable them to drain water from the hillside.
3. Install additional horizontal drains in the north bank of Capell Creek. 12 new 3-inch diameter plastic pipes would be drilled into the hillside to a depth of 200 feet to remove additional water from the soil. The drains would be installed at two locations close to the creek requiring temporary dewatering of Capell Creek for construction access (see Figure 3). Cofferdams made from gravel-filled bags, plastic sheeting, and a 36-inch water diversion pipe would be required to dewater the work area. Additional gravel-filled bags would be placed in the creek bed to allow for staging of equipment and materials. A construction easement would be obtained from an adjacent property owner in order to use an existing dirt road down to the creek. Two 15' x 20' concrete pads would be built into the bank to provide: a) construction pads to place drilling equipment and b) dissipaters for water exiting the drains to prevent erosion into the creek.

Approximately 35 cubic yards of excavated soil would be disposed of off-site. Approximately 0.4 acre of mature riparian vegetation consisting mainly of willows and alders would be removed from the construction area. About 0.2 acre of creek bed would be temporarily affected by placement of gravel bags to allow for movement of equipment and materials into Capell Creek.

☐ *Continued on additional page(s)*

B. Specify the equipment and machinery that will be used to complete the project.

1 small dozer (CAT D5 series or similar) – for site grading
1 medium sized excavator (CAT 320 series or greater) – for cofferdam, berm, and pipe installation
1 backhoe loader (CAT 400 series or similar) – for site grading, and dirt ramp
1 21,000 gallon water wank – for creek dewatering
2 water pumps (Honda WB30 or similar) – for creek dewatering

☐ *Continued on additional page(s)*

C. Will water be present during the proposed work period (specified in box 4.D) in the stream, river, or lake (specified in box 8.B).	☑ Yes ☐ No (*Skip to box 11*)
D. Will the proposed project require work in the wetted portion of the channel?	☑ Yes (*Enclose a plan to divert water around work site*) ☐ No

11. PROJECT IMPACTS

A. Describe impacts to the bed, channel, and bank of the river, stream, or lake, and the associated riparian habitat. Specify the dimensions of the modifications in length (linear feet) and area (square feet or acres) and the type and volume of material (cubic yards) that will be moved, displaced, or otherwise disturbed, if applicable.

[See Attached]

☑ *Continued on additional page(s)*

B. Will the project affect any vegetation? ☑ Yes (*Complete the tables below*) ☐ No

Vegetation Type	Temporary Impact	Permanent Impact
riparian	Linear feet: 221 Total area: .12 ac	Linear feet: _____ Total area: _____
	Linear feet: _____ Total area: _____	Linear feet: _____ Total area: _____

Tree Species	Number of Trees to be Removed	Trunk Diameter (range)
white alder (Alnus rhombifolia)	11	1"-12"
arroyo willow (Salix lasiolepis)	5	3"-12"

☐ *Continued on additional page(s)*

C. Are any special status animal or plant species, or habitat that could support such species, known to be present on or near the project site?

☑ Yes *(List each species and/or describe the habitat below)* ☐ No ☐ Unknown

CA red-legged frog

☐ *Continued on additional page(s)*

D. Identify the source(s) of information that supports a "yes" or "no" answer above in Box 11.C.

USFWS BO for the Proposed Napa State Route 128 Horizontal Drains issued on 05/09/2013

☐ *Continued on additional page(s)*

E. Has a biological study been completed for the project site?

☑ Yes (*Enclose the biological study*) ☐ No

Note: A biological assessment or study may be required to evaluate potential project impacts on biological resources.

F. Has a hydrological study been completed for the project or project site?

☐ Yes (*Enclose the hydrological study*) ☑ No

Note: A hydrological study or other information on site hydraulics (e.g., flows, channel characteristics, and/or flood recurrence intervals) may be required to evaluate potential project impacts on hydrology.

12. MEASURES TO PROTECT FISH, WILDIFE, AND PLANT RESOURCES

A. Describe the techniques that will be used to prevent sediment from entering watercourses during and after construction.

The following Caltrans BMPs will be implemented:

1. Fiber rolls will be placed on the banks to encourage soil stabilization.
2. Silt fences will be placed on slopes to prevent sediment from entering the waterways.
3. Hydroseeding will be applied on slopes to control erosion following soil disturbance.
4. A permanent revegetation project will follow the mail highway project.

☐ *Continued on additional page(s)*

B. Describe project avoidance and/or minimization measures to protect fish, wildlife, and plant resources.

Red-legged frog avoidance/minimization measures for Capell Creek (Biological Opinion 05/09/2013)
1. Except for vegetation clearing (necessary to minimize effects to nesting birds), work within the creek channel will be limited to between June 1 and October 15.
2. California red-legged frog exclusionary fencing will be placed at the edge of active construction areas to restrict frog access into the work area.

Check enclosed Biological Opinion for additional avoidance measures regarding the California Red-Legged Frog.

☐ *Continued on additional page(s)*

C. Describe any project mitigation and/or compensation measures to protect fish, wildlife, and plant resources.

Revegetation plan for the removal of mature alders and willows. The bed of the creek will be restored to its original condition.

☐ *Continued on additional page(s)*

13. PERMITS

List any local, state, and federal permits required for the project and check the corresponding box(es). Enclose a copy of each permit that has been issued.

A.	CWA Section 404 Nationwide Permit	☑ Applied	☐ Issued
B.	CWA Section 401 Water Quality Certification	☑ Applied	☐ Issued
C.	Biological Opinion	☐ Applied	☑ Issued

D. Unknown whether ☐ local, ☐ state, or ☐ federal permit is needed for the project. (*Check each box that applies*)

☐ *Continued on additional page(s)*

14. ENVIRONMENTAL REVIEW

A. Has a draft or final document been prepared for the project pursuant to the California Environmental Quality Act (CEQA), National Environmental Protection Act (NEPA), California Endangered Species Act (CESA) and/or federal Endangered Species Act (ESA)?

☑ Yes (*Check the box for each CEQA, NEPA, CESA, and ESA document that has been prepared and enclose a copy of each*)

☐ No (*Check the box for each CEQA, NEPA, CESA, and ESA document listed below that will be or is being prepared*)

☐ Notice of Exemption	☑ Mitigated Negative Declaration	☑ NEPA document (*type*): CE
☑ Initial Study	☐ Environmental Impact Report	☑ CESA document (*type*): IS/MND
☐ Negative Declaration	☑ Notice of Determination *(Enclose)*	☑ ESA document (*type*): BA/BO
☐ THP/ NTMP	☐ Mitigation, Monitoring, Reporting Plan	

B. State Clearinghouse Number (*if applicable*)	SCH #2013022053		
C. Has a CEQA lead agency been determined?	☑ Yes (*Complete boxes D, E, and F*)	☐ No (*Skip to box 14.G*)	
D. CEQA Lead Agency	Caltrans		
E. Contact Person	Janet Bailey	F. Telephone Number	(559) 445-6328

G. If the project described in this notification is part of a larger project or plan, briefly describe that larger project or plan.

n/a

☐ *Continued on additional page(s)*

H. Has an environmental filing fee (Fish and Game Code section 711.4) been paid?

☑ Yes (*Enclose proof of payment*) ☐ No (*Briefly explain below the reason a filing fee has not been paid)*

[proof of payment from Janet - email sent to Janet 10/09/2013 @ 4:45pm]

Note: If a filing fee is required, the Department may not finalize a Lake or Streambed Alteration Agreement until the filing fee is paid.

15. SITE INSPECTION

Check one box only.

☑ In the event the Department determines that a site inspection is necessary, I hereby authorize a Department representative to enter the property where the project described in this notification will take place at any reasonable time, and hereby certify that I am authorized to grant the Department such entry.

☐ I request the Department to first contact (*insert name*) _____ at (*insert telephone number*) _____ to schedule a date and time to enter the property where the project described in this notification will take place. I understand that this may delay the Department's determination as to whether a Lake or Streambed Alteration Agreement is required and/or the Department's issuance of a draft agreement pursuant to this notification.

16. DIGITAL FORMAT

Is any of the information included as part of the notification available in digital format (i.e., CD, DVD, etc.)?

☑ Yes (Please enclose the information via digital media with the completed notification form)

☐ No

17. SIGNATURE

I hereby certify that to the best of my knowledge the information in this notification is true and correct and that I am authorized to sign this notification as, or on behalf of, the applicant. I understand that if any information in this notification is found to be untrue or incorrect, the Department may suspend processing this notification or suspend or revoke any draft or final Lake or Streambed Alteration Agreement issued pursuant to this notification. I understand also that if any information in this notification is found to be untrue or incorrect and the project described in this notification has already begun, I and/or the applicant may be subject to civil or criminal prosecution. I understand that this notification applies only to the project(s) described herein and that I and/or the applicant may be subject to civil or criminal prosecution for undertaking any project not described herein unless the Department has been separately notified of that project in accordance with Fish and Game Code section 1602 or 1611.

Dena S Hemp for — 10-17-2013

Signature of Applicant or Applicant's Authorized Representative — Date

Javier Almaguer

Print Name

NOTICE OF DETERMINATION

TO: Office of Planning and Research
Post Office Box 3044
Sacramento, California 95812-3044

FROM: California Department of Fish and Wildlife
Bay Delta Region
7329 Silverado Trail
Napa, California 94558

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code

PROJECT TITLE: Capell Creek Horizontal Drains Project

STATE CLEARINGHOUSE NUMBER: 2013022053

LEAD AGENCY: California Department of Transportation
CONTACT: Javier Almaguer, (559) 445-6456

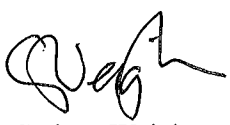
RESPONSIBLE AGENCY: California Department of Fish and Wildlife
CONTACT: Melissa Escaron, (925) 786-3045

PROJECT DESCRIPTION / LOCATION: The Project will install a drainage system into a hillside adjacent to the Capell Creek Bridge on State Route 128 in Napa County. The California Department of Fish and Wildlife is executing a Lake and Streambed Alteration Agreement Number 1600-2013-0399-3 pursuant to Section 1602 of the Fish and Game Code to the project Applicant, California Department of Transportation.

This is to advise that the California Department of Fish and Wildlife as a Responsible Agency approved the project described above on June 16, 2014 and has made the following determinations regarding the above described project pursuant to section 15096 (i).

1. The project ***will not*** have a significant effect on the environment.
2. CDFW considered the Negative Declaration as previously prepared for this project by the Lead Agency.

This is to certify that a copy of the Negative Declaration prepared for this project is available to the general public and may be reviewed at: http://www.dot.ca.gov/dist4/envdocs.htm. Please contact the lead agency person specified above.



Craig J. Weightman
Environmental Program Manager
Bay Delta Region

Date Received for Filing:_____