CEQA EXEMPTION / NEPA CATEGORICAL EXCLUSION
DETERMINATION FORM (rev. 06/2022)

Project Information

Project Name (if applicable): Waddell Creek Scour Emergency RSP Repair

DIST-CO-RTE: 05-SCr-001 **PM/PM:** 36.0-37.0

EA: 05-2A030 **Federal-Aid Project Number:** 0526000086

Project Description: Caltrans proposes an emergency repair for an imminent threat to Highway 001 in Santa Cruz County near Waddell Creek at postmiles 36.0-37.0; wherein scour of the embankment along route 001 caused by Waddell Creek flow shifting northerly along with king tides and storm swells has created severe erosion of the Southbound embankment and continues to rapidly erode pending on tides and creek volume. A 315 linear foot revetment will be constructed to tie into existing RSP near the mouth of the creek and connect to other existing RSP near the point of Waddell Creek parking lot in order to protect the critical embankment that remains.

Caltrans CEQA Determination (Check one)

☐ **Not Applicable** – Caltrans is not the CEQA Lead Agency

☐ **Not Applicable** – Caltrans has prepared an IS or EIR under CEQA

Based on an examination of this proposal and supporting information, the project is:

☒ **Exempt by Statute.** (PRC 21080[b]; 14 CCR 15260 et seq.)

☐ **Categorically Exempt. Class** Enter class. (PRC 21084; 14 CCR 15300 et seq.)

- ☐ No exceptions apply that would bar the use of a categorical exemption (PRC 21084 and 14 CCR 15300.2). See the SER Chapter 34 for exceptions.

☐ **Covered by the Common Sense Exemption**. This project does not fall within an exempt class, but it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment (14 CCR 15061[b][3].)

Senior Environmental Planner or Environmental Branch Chief

Sunny McBride	Sunny McBride	4/14/2026
Print Name	Signature	Date

Project Manager

Victor Devens	Victor Devens	4/16/26
Print Name	Signature	Date

Caltrans NEPA Determination (Check one)

☐ **Not Applicable**

Caltrans has determined that this project has no significant impacts on the environment as defined by NEPA, and that there are no unusual circumstances as described in 23 CFR 771.117(b). See SER Chapter 30 for unusual circumstances. As such, the project is categorically excluded from the requirements to prepare an EA or EIS under NEPA and is included under the following:

☐ **23 USC 326:** Caltrans has been assigned, and hereby certifies that it has carried out the responsibility to make this determination pursuant to 23 USC 326 and the Memorandum of Understanding dated April 18, 2022, executed between FHWA and Caltrans. Caltrans has determined that the project is a Categorical Exclusion under:

☒ **23 CFR 771.117(c): activity (c)(9i)**

☐ **23 CFR 771.117(d): activity (d)(Enter activity number)**

☐ **Activity Enter activity number listed in Appendix A of the MOU between FHWA and Caltrans**

☐ **23 USC 327:** Based on an examination of this proposal and supporting information, Caltrans has determined that the project is a Categorical Exclusion under 23 USC 327. The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated May 27, 2022, and executed by FHWA and Caltrans.

Senior Environmental Planner or Environmental Branch Chief

Sunny McBride	Sunny McBride	4/16/2026
Print Name	Signature	Date

Project Manager/ DLA Engineer

Victor Devens	Victor Devens	4/16/26
Print Name	Signature	Date

Date of Categorical Exclusion Checklist completion (if applicable): Enter date
Date of Environmental Commitment Record or equivalent: Enter date

Briefly list environmental commitments on continuation sheet if needed (i.e., not necessary if included on an attached ECR). Reference additional information, as appropriate (e.g., additional studies and design conditions)

Measures and Minimizations

Visual:

Although no significant visual impacts are expected to occur as a result of the project, the following measures would ensure that the project will be consistent with the character of the corridor and potential visual effects of the project would be minimized:

1. Preserve as much existing vegetation as possible. Prescriptive clearing and grubbing and grading techniques which save the most existing vegetation possible should be employed.

2. Revegetate all disturbed areas, including staging areas/access roads, with native plant species appropriate to each specific work location if appropriate and feasible based on a permanent erosion control recommendation by District 5 Landscape Architecture.

3. Following construction, re-grade and re-contour all new construction access roads, staging areas, and other temporary uses as necessary to match the surrounding pre-project topography

Biological:

U.S. Army Corps of Engineers

1. To protect water quality, you shall implement all appropriate measures cited in enclosure 3, Central Coast Water Board Recommended Conservation Measures.

2. To protect aquatic resources and wildlife, you shall implement the recommended measures cited in enclosures 4 and 5, NMFS Recommended Conservation Measures, and USFWS Recommended Conservation Measures, to the extent feasible. You shall also review and implement the recommended measures from the California Department of Fish and Wildlife, as feasible, cited in enclosure 6.

3. You shall provide a copy of the Emergency Coastal Development Permit to the U.S. Army Corps of Engineers Regulatory Division when it is issued.

4. A post construction report shall be submitted 45 days after the conclusion of construction activities. The report shall document construction activities and contain before and after photos. The report shall document the fill quantities placed within the Corps' jurisdiction, below the High Tide Line, or within the Ordinary High Water mark of Waddell Creek.

5. Caltrans shall prepare a mitigation plan to address the permanent loss of Waters of the U.S. from this project, and submit the mitigation plan to the Corps for review within forty-five days of project completion. The plan shall identify the

mitigation type (habitat establishment, rehabilitation, enhancement, etc.), location, acreage, design, monitoring, reporting, and implementation schedule. Caltrans' responsibility to complete the required mitigation as set forth in this condition shall not be considered fulfilled until all final mitigation performance standards have been achieved.

Regional Water Quality Control Board

Among other requirements listed in the Technically Conditioned 401 Certification of Regional General Permit 5, you are required to:

1. Pursuant to section VI.H.3, submit a fee of $4,212 to the Central Coast Water Board.
2. Pursuant to section VI.C.6, implement effective best management practices to control erosion and runoff from areas associated with the emergency project, including access road construction and maintenance.
3. Pursuant to section VI.E.1, all areas of temporary impacts must be restored to pre-project conditions.
4. Pursuant to section VI. D, Caltrans shall fully mitigate impacts to ocean/estuary habitat and the Waddell Creek mouth associated with the project. To comply, Caltrans must submit a mitigation plan for Central Coast Water Board staff review and approval within forty-five (45) days of completion of construction to ensure the waters of the state's value and functions of the site are equal or exceed pre-project waters of the state's value and functions by the end of the mitigation monitoring period. The plan shall identify the mitigation type (habitat establishment, rehabilitation, enhancement, etc.), location, acreage, design, monitoring, reporting, and implementation schedule. Caltrans' responsibility to complete the required mitigation as set forth in this condition shall not be considered fulfilled until all final mitigation performance standards for each impact area have been achieved. Caltrans shall implement the mitigation plan prior to termination of coverage.
5. Pursuant to VI. F. Water Quality Monitoring: If surface water is present, continuous visual monitoring shall be conducted during active construction to detect accidental discharge of construction related pollutants (e.g., oil and grease, turbidity plume, or uncured concrete). A daily log of photos during any in-water work shall be submitted on a weekly basis every Wednesday until any in-water work is complete.
6. Fill in and submit within 45 days of project completion, including implementation of the mitigation, the Notice of Completion form (Attachment E) to the Central Coast Water Board and the State Water Board.

U.S. Fish and Wildlife Service

GENERAL MEASURES

- When feasible prior to any proposed activities, the appropriate Service field office, as designated on the IPaC Official Species List, should be contacted and coordinated with to identify project specific conservation measures that could be implemented to avoid, minimize, and offset impacts from the proposed action.
- When feasible prior to any proposed activities, a qualified biologist should train all personnel on the biological resources associated with the project. At a minimum, training should include: (a) a description of the federally listed species that may be within the project area and their habitats; (b) the conservation measures that should be implemented during project activities to avoid and minimize impacts to listed species; and (c) environmentally responsible practices.
- When feasible prior to any proposed activities, a habitat assessment should be conducted by a qualified biologist to determine whether suitable habitat for listed species occurs in the project area.
- When feasible prior to any proposed activities, surveys for federally listed species should be conducted in areas of suitable habitat and in accordance with protocols identified by the Service. All pre-activity surveys and reporting should be carried out by a qualified biologist[1] and approved by the appropriate Service field office, as designated on the IPaC Official Species List.
- All trash, work materials, waste, debris, etc. should be disposed of and removed from the project area regularly. All food-related trash items should be enclosed in sealed containers and removed from the site daily. Personnel should not feed or otherwise attract fish or wildlife to the project area.
- The footprint of the project area should be minimized to the greatest extent practicable. Clearly delineate project areas and access routes to reduce impacts to the surrounding area and use only existing transportation routes, as feasible. Complete activities at individual project areas in a timely manner to reduce disturbance and/or displacement of wildlife in the immediate project area.
- Use existing roads and avoid constructing new roads, accesses, skid trails, and staging areas, including clearing and blading for temporary vehicle access to the greatest extent practicable. If the construction of new roads and staging areas, either temporary or permanent, is unavoidable, limit road widening and grading to the minimum required for safe vehicle passage to avoid additional ground disturbance and use permeable paving for areas with light vehicle traffic. Minimize tree clearing and vegetation removal in rights-of-way to the greatest extent practicable.

[1] A qualified biologist refers to an individual with adequate experience and training in identification, habitat delineation, survey protocols, and monitoring. All qualified biologists conducting work with federally listed species must be approved by the Service. Depending on the work being done, the qualified biologist may be required to obtain a Service-issued recovery permit.

- Park vehicles and equipment on pavement, existing roads, or other disturbed or designated areas (barren, gravel, compacted dirt). Recreational and other off-road vehicles should be prohibited, unless used for essential project-related or emergency operations. Speed limits should be clearly marked, and all personnel made aware of these limits.
- Avoid night work if feasible. If night work is necessary, night lighting should be of the lowest illumination necessary for human safety, selectively placed, shielded, and directed away from natural habitats.
- Domestic pets (e.g., dogs) should be prohibited from the project area.
- All work-related vegetative debris (e.g., larger brush, tree limbs, tree trunks) should be hauled inside a designated area daily. Stockpiles of vegetative debris and tree mulch should be kept in a contained area inside the designated area, and intermittently hauled offsite for disposal.
- Securely cover all pipes, culverts, containers, vertically sided holes, trenches, water tanks etc. at the end of each workday and/or have escape ramps installed if they are left open overnight to prevent entrapment, stranding, or drowning of wildlife. Inspect any open holes, tanks, or trenches each morning prior to work for entrapped wildlife. If any individuals are found, allow the wildlife to naturally leave or contact the appropriate Service field office, as designated on the IPaC Official Species list, to develop a plan to relocate the species.
- If a federally listed species is killed or injured, notify the appropriate Service field office, as designated on the IPaC Official Species List, within one working day. Within three working days, provide written notification that includes, at a minimum, the date, time, and location of the specimen and information about the conditions under which it was found.

IN-WATER AND NEAR-WATER WORK

- Identify all wetlands, ponds, and riparian areas and establish avoidance buffers of 300 feet around each feature when feasible.
- Minimize streambed alteration and maintain fish passage (all life stages) to the greatest extent possible.
- Design and engineer projects to maintain natural stream and river hydrology. Alteration of an area's natural contours should be done with minimal changes in elevation and slope. Limit the use of concrete, riprap, bridge footings, and other hard engineering features.
- Ground-disturbing activities should be avoided or minimized to the farthest extent possible within 300 feet from the riparian areas and wetlands of any waterbodies or groundwater dependent ecosystems. Impacts on wetland and riparian vegetation should be avoided or minimized to the greatest extent practical and avoided within 300 feet of wetlands and waterways.
- Refueling of work equipment and vehicles should not take place within 300 feet of any waterbodies or groundwater dependent ecosystems. Fueling and staging areas should be located where the slope is away from aquatic features.

- Design and construct road crossings for ephemeral, intermittent, and perennial streams to minimize impacts to the riparian habitat, such as crossing at right angles to ephemeral drainages and stream crossings.
- Remove all temporary water crossings after project activities are complete, and re-contour and restore banks to their pre-disturbance conditions.
- Minimize disturbance to subtidal and/or wetland vegetation. During boat access, boats should be docked to existing facilities or landed in areas that minimize the potential impact to subtidal and wetland vegetation. Barges should be placed on mudflats in such a manner that subtidal and wetland vegetation is not disturbed. Avoid vegetated areas and confine foot traffic to existing facilities, mudflats, and established project areas to minimize disturbance to vegetation.
- Position floating debris containment booms beneath and alongside project areas when necessary. Care should be used by equipment operators to control debris and immediately retrieve debris if generated.
- All work should incorporate appropriate best management practices to prevent project area runoff into waterways and minimize bank erosion, sediment input, and turbidity.
- Silt fencing, fiber rolls, erosion control blankets, and other storm water best management practices should be used as necessary to protect waterways and storm drains. No fill, including vegetation trimmings, debris, or runoff should be allowed to enter wetland areas or waterways. The materials used should not pose an entrapment/entanglement risk to wildlife (e.g., plastic netting).

EROSION AND SEDIMENT CONTROL

- Implement Best Management Practices to control erosion and sedimentation such as:
    - Use temporary filters, berms, barriers, conveyances, or other materials to collect sediment and prevent it from entering surface waters.
    - Accurately establish and preserve horizontal alignment for each stream-crossing structure, to assure that flows do not erode stream banks or shoreline. For project activities conducted within stream banks, ensure the stream channel alignment and depth is preserved in such a manner as to not cause the streambank or channel to erode.
    - Restore the original surface of the streambed upon decommissioning a concrete crossing, when applicable.
    - Keep excavated materials out of channels, floodplains, wetlands, and lakes.
    - Install silt fences or other sediment and debris retention barriers between the water body and material stockpiles and wastes.
    - Stabilize decommissioned surfaces and other disturbed soil surfaces by retaining or reestablishing soil cover to 60 to 70 percent. Use certified weed-free straw where existing soil cover is insufficient. Stabilize project areas in an identical manner when the National Weather Service predicts a 30 percent or greater chance of precipitation (predicted precipitation greater than 0.25 inches within a 24-hour period).
- In areas dominated by native plants where significant grading would be required, the upper layer of topsoil material (6 inches) should be segregated during excavations to preserve the seed bank and stockpiled for later reapplication. Any topsoil stockpiles

within occupied habitat should be stabilized to prevent wind and water erosion when not in active use. Avoid covering salvaged topsoil stockpiles with plastic material as it may trap heat in the soil and seeds could be destroyed.

- Project activities should be prohibited when the soil is too wet to adequately support equipment unless a soil stabilizer or matting is used.

SPILL PREVENTION AND CONTROL

- Materials such as fuels, other petroleum products, chemicals, and hazardous materials including waste should be located in upland areas away from streams or wells. Secondary containment should be provided for all on-site hazardous materials and waste storage, including fuel. Hazardous material should not be drained onto the ground or into streams or drainage areas.
- All personnel should be trained on the types of contamination that could be encountered and how to respond if contamination occurs. All footwear for project personnel should be cleaned and sanitized to remove course dirt and debris (which could contain pathogens and parasites) between each site at every visit.
- Backfill materials should not be derived from sites suspected of being contaminated by releases of hazardous substances or petroleum products.
- Implement procedures for containment and removal of any chemical spills (for example a Water Pollution Control and Prevention Plan). Use liners as needed to prevent seepage to groundwater. Remove residues, waste oil, and other materials from the site and properly dispose of them. Hazardous materials should be stored at safe distances from riparian or aquatic areas within a designated location designed to contain spills. Report spills and initiate appropriate clean-up action in accordance with applicable State and Federal laws, rules, and regulation.
- Spills should be promptly cleaned up and contaminated materials transported to a disposal site that meets local, state, and federal requirements. For spills in standing water, absorbent materials should be used as appropriate to recover and contain released materials on the surface of the water.
- Dispose of contaminated debris or material contaminated with herbicides at a contaminated materials location such as a landfill or decontamination facility; or contain it securely in sealed plastic bags, remove off-site, and dispose of it in a way to avoid spreading contaminated materials.
- Maintain all vehicles and equipment in working condition to minimize fugitive emissions and accidental spills from motor oil, antifreeze, hydraulic fluid, grease, or other fluids or hazardous materials.
- Remove all external oil, grease, dirt, plant parts, and mud from equipment prior to arriving at the project area and inspect all equipment before unloading at the project area.
- Use designated staging areas more than 300 feet from wetlands, riparian areas, and open water to perform vehicle maintenance and refueling. Conduct daily checks of equipment for leaks and correct problems before entering aquatic or riparian areas. Infiltrate as much runoff from these areas using permeable surfaces and infiltration ditches or basins in areas where groundwater contamination risk is low. Restore staging areas immediately following use.

INVASIVE SPECIES MANAGEMENT

- All tools, clothing, vehicles, and heavy equipment (e.g., excavators, graders, boats, barges, etc.) should be carefully cleaned of mud and debris before arriving to the project area to prevent the introduction and spread of invasive plant propagules. Establish a designated washing station to clean vehicles and equipment that is located away from riparian zones and waterbodies.
- Materials used for project activities and erosion control should be certified weed free (i.e., straw wattles, gravel, fill material, etc.). When restoring a site after disturbance, a native seed mix should be utilized.
- Laydown and staging should be on previously developed or disturbed areas, known to be weed-free. Maintain gravel and soil spoil piles to be free of invasive weeds.
- All equipment contacting water should be properly disinfected. After work is complete in a waterbody, any equipment involved should be washed to remove any propagules of aquatic invasive species and to prevent the spread of those species to other waterbodies.
- Invasive species removed and soil with weed seeds should be securely sealed plastic bags, removed off-site, and disposed of it in a way to avoid spreading invasive species.

PESTICIDES

- All pesticide applications should be done by a qualified (licensed and experienced) pesticide applicator and comply with label restrictions, federal, state, and/or county regulation. No spraying should occur prior to notification and approval from the applicable land management agency or landowner.
- Pesticide use near federally listed species and within 100 feet of aquatic resources should be monitored for safety and effectiveness. Pesticide application with hand spraying should not be used within 100 feet from areas occupied by federally listed plants or habitat for federally listed fish (300 feet from occupied areas if pesticide applied from vehicle).
- Avoid the use of herbicides as the primary method used to control invasive, exotic plants. If the use of herbicides is the only feasible method for controlling invasive plants, implement the following additional protective measures:
    - Take all precautions to ensure that no herbicide is applied to native vegetation. Foliar spray applications should not be applied when wind speeds exceed 12 miles per hour. Directed sprayers with low-pressure, large droplet nozzles should be used.
    - Herbicides should not be applied on or near open water surfaces (no closer than 100 feet from open water) unless approved by the appropriate Service field office, as designated on the IPaC Official Species List.
    - Herbicides should not be applied within 48 hours of a predicted (greater than 50 percent chance forecast) significant rain event (0.2 inch or greater with 24-hour period). The National Weather Service 72-hour forecast should be consulted for the project area (https://www.wpc.ncep.noaa.gov/kml/kmlproducts.php#qpf).
    - Application of all herbicides should be done by qualified (licensed and experienced) personnel or contractors using a hand-held sprayer for foliar application to ensure that overspray is minimized. Such applications should be limited to areas where large monoculture stands of non-native vegetation occur

such that the cut-and-paint method of application is not feasible. All applications should be made at no more than half the maximum application rate but otherwise in accordance with label recommendations. Applications should include the implementation of all required and reasonable safety measures. A safe dye should be added to the mixture to visually denote treated sites. Application of herbicides should be consistent with the EPA's Office of Pesticide Programs, Endangered Species Protection Program county bulletins.

- All herbicides, fuels, lubricants, and equipment should be stored, poured, and refilled at least 100 feet from riparian habitat or water bodies in a location where a spill would not drain directly toward aquatic habitat.

NOISE ABATEMENT

- Equipment should be maintained in working order and should have standard noise abatement devices attached, if feasible.
- Noise buffers and noise reduction practices (e.g., sound barriers, mufflers, no backup alarms, etc.) should be implemented when project activities create noise ≥3 decibels above the ambient noise level.
- Project activities (e.g., blasting) that cause loud or continuous noise should be limited to the least noise-sensitive times of the day (e.g., daytime between 9am and 6pm).

DUST CONTROL

- Apply dust suppression techniques, such as watering work areas, removing dirt tracked onto paved roads, or covering excavations, spoils, access roads, storage piles, and other sources of fugitive dust if project activities cause visible emissions of fugitive dust.

RESTORATION

- Project areas should be returned to preexisting conditions upon completion of work.
- Effectively prevent access to the area once site restoration activities have been completed.
- Return all contours to their original grade at the end of project activities.
- Revegetate and restore all areas with disturbed soils with an assemblage of weed-free native grasses, forbs, shrubs, and/or tree species consistent with the habitat affected. Locally collected plant materials should be used to the greatest extent practicable. Non-native vegetation should not be used for restoration.
- Temporary impact areas should be planted as soon as possible following re-grading after completion of project activities to prevent encroachment by nonnative plants. All planting and seeding should occur the first year after project activities are complete, after the first significant rain event of the year (i.e., more than 0.20 inch of precipitation).
- Employ post-restoration monitoring following project completion to determine efficacy and/or impacts of treatment. Conduct non-native species removal and reapplication of certified weed-free native seeds as necessary.

GUILD- AND SPECIES-SPECIFIC CONSERVATION MEASURES

GENERAL AMPHIBIANS

- As much as feasible, work should be avoided in stream courses, riparian habitat, wetlands, and meadows.
- Work should be conducted during daylight hours only, when amphibians are least likely to be moving aboveground.
- Work should be postponed if chance of rain is greater than 70% based on the NOAA National Weather Service forecast or within 48 hours following a rain event greater than 0.1 inch. If work should occur during these conditions, a qualified biologist should conduct a clearance sweep of project areas prior to the start of work.
- A qualified biologist should conduct clearance surveys at the beginning of each day and regularly throughout the workday when project activities are occurring that may result in take of amphibians. If any amphibians are detected and cannot possibly be avoided, work should stop until the amphibian leaves the project area on its own. If the amphibian does not leave the project area on its own contact the appropriate Service field office, as designated on the IPaC Official Species list, to develop a plan to relocate the species.
- To ensure that diseases are not conveyed between work sites, follow the Declining Amphibian Task Force Fieldwork Code of Practice.
- Avoid the use of herbicides as the primary method used to control invasive, exotic plants. If the use of herbicides is the only feasible method for controlling invasive plants at a specific project area, implement the following additional protective measures for listed amphibians:
    - Avoid using herbicides during the breeding season.
    - Conduct surveys in areas where herbicides are to be applied, immediately prior to the start of any herbicide use. If listed amphibians are found, contact the appropriate Service field office, as designated on the IPaC Official Species list, to develop a plan to relocate the species.
    - Any use of glyphosate or glyphosate-based products should be done without polyoxyethyleneamine surfactants. Formulations that lack a surfactant include Rodeo® and Aquamaster®, which have been approved by the U.S. Environmental Protection Agency (EPA), through their registration process, for aquatic use.
    - All herbicides should be applied at half the maximum rate indicated on the product label and should maintain a Hazard Quotient of less than or equal to 1. Hazard Quotients can be determined using the Herbicide Risk Charts in the California Invasive Plant Council and Pesticide Research Institute's Best Management Practices. For assessing risk to amphibians, small birds are used as a surrogate for amphibians in terrestrial phase, and fish as a surrogate for amphibians in egg and larval phase (in accordance with EPA risk assessments). The Hazard Quotient should be less than or equal to 1 for both surrogates.
    - Cut and haul out giant reed (*Arundo donax*) and other similar invasive plants by hand and paint the stems with glyphosate or glyphosate-based products, such as Aquamaster® or Rodeo®.
    - Licensed and experienced personnel or a licensed and experienced contractor should use a hand-held sprayer for foliar application of Aquamaster® or Rodeo®

where large monoculture stands of non-native vegetation occur at an individual project area.

- The project area should be surrounded by a solid temporary exclusion fence (such as silt fence) buried into the ground to a depth of at least six (6) inches and extended at least three feet above the ground to exclude listed amphibians from entering the project area. The location of the fencing should be determined by a qualified biologist. The fencing should be installed during dry conditions prior to rain events that may stimulate movement of listed amphibians. The fence should be inspected daily to assure that it is functioning properly to exclude listed amphibians from the project area. Ingress/egress should be temporarily sealed off overnight using a section of fence that is anchored to the ground (e.g., fire hose filled with sand or sandbags can be used to anchor the bottom of the fence or the bottom should be buried).
- All boreholes should be completely backfilled or covered at the end of each workday and not be left open overnight.
- Small mammal burrows that listed amphibians are known to or could use should be identified with stakes or pin flags so that they may be excavated prior to work in that area. A 20-foot radius area should be fenced around each burrow or burrow complex to ensure that vehicles, equipment, and personnel avoid the area.
    - If burrows cannot be avoided, burrow excavation may be performed using hand tools or via gentle excavation using construction equipment, under the direct supervision of a qualified biologist, until it is certain that the burrows are unoccupied.
    - In lieu of burrow excavation, steel plates or plywood may be used to protect small mammal burrows from ground disturbance. Plates and plywood should be removed nightly when a significant rain event is forecasted within 48 hours and should be removed if work is scheduled to cease for consecutive days. Any individuals encountered should be allowed to vacate the area on their own accord.
- All steep-walled earthen holes and open trenches 6 inches deep or greater should be covered each night or provided with escape ramps to prevent entrapment of listed amphibians. Excavations should be inspected for animals each morning, prior to any work in or around them, and before they are backfilled.
- If a project area is to be dewatered by pumping, intakes should be completely screened with mesh not larger than 0.2 inch to prevent listed amphibians from entering the pump system.
- If project activities should occur during the rainy season, work should not occur during rain events (more than 0.20 inch), or during the 24 hours after these events, to the extent practicable. If work should occur 24 hours prior to significant rain events (more than 0.20 inch), or during the 24 hours after these events, a qualified biologist should conduct a pre-activity survey to ensure that the project area is clear of listed amphibians.
- When working in areas with a predominance of native plants, the upper layer of topsoil material (6 inches) should be segregated during excavations to preserve the seed bank. The preserved topsoil should be covered to protect it from erosion and invasion of non-native plants until completion of the activity, when the topsoil should be replaced over temporarily affected areas.
- To the maximum extent possible, a qualified biologist should permanently remove any individuals of non-native species, such as bullfrogs (*Rana catesbeiana*), signal and red

swamp crayfish (*Pacifastacus leniusculus; Procambarus clarkii*), and centrarchid fishes from the project area in compliance with the California Fish and Game Code

CALIFORNIA RED-LEGGED FROG

- A qualified biologist should survey the project area no more than 48 hours before the onset of project activities. If any life stage of the California red-legged frog is found and these individuals are likely to be killed or injured by project activities, contact the appropriate Service field office, as designated on the IPaC Official Species list, to develop a plan to relocate the individuals.
- Work should be scheduled for times of the year when impacts to the California red-legged frogs would be minimal. For example, work that would affect pools that may support breeding or dry season aquatic refuge should take place between May 1 and July 31, to the maximum extent practicable, to avoid the breeding season of the California red-legged frog (November 1 to April 30) and to maintain aquatic habitat for California red-legged frogs through the driest portions of the year (August 1 to September 30). If work should occur during the breeding season, the project proponent should implement the following measures:
    - No work should occur during or 24 hours after any rain event to minimize impacts to dispersing and breeding California red-legged frogs. A rain event is considered any precipitation resulting in 0.2 inch or greater of precipitation. A qualified biologist should survey the project area immediately before resuming project activities.
    - Project activities should be conducted no earlier than 30 minutes after sunrise and no later than 30 minutes before sunset each day.
    - A qualified biologist should survey the project area daily before activities begin and monitor all project activities.
- If a work site is to be temporarily dewatered by pumping, intakes should be completely screened with mesh not larger than 0.2 inch to prevent California red-legged frogs from entering the pump system. Water should be released or pumped downstream at an appropriate rate to maintain downstream flows during project activities. Upon completion of project activities, any diversions or barriers to flow should be removed in a manner that allows flow to resume with the least disturbance to the substrate. Alteration of the stream bed should be minimized to the maximum extent possible; any imported material should be removed from the stream bed upon completion of the project.
- Unless approved by the appropriate Service field office, as designated on the IPaC Official Species List, water should not be impounded in the course of project activities in a manner that may attract California red-legged frogs.

GENERAL BIRDS

- Project activities should take place outside nesting bird season (February 15 - August 30) to the extent feasible. If the nesting season cannot be avoided, nesting bird surveys should be conducted by a qualified biologist prior to project implementation. If nesting birds are detected, the qualified biologist should flag the nest structure and an adequate budder of surrounding vegetation for avoidance of vegetation clearing and other project activities

until after the birds have fledged. The qualified biologist should also record the number and location of listed birds disturbed by vegetation clearing.

- When possible, light sources (e.g., buildings, streetlights) should be situated away from riparian habitat. Night-time (dusk to dawn) project activity adjacent to natural areas should be avoided to the maximum extent practicable. Utilize low lumen bulbs, minimize the number of lights used, shield and direct light downward, and selectively place and direct lighting to keep light within the boundaries of the project area and away from all native vegetative communities. Where possible, security/safety lighting should be based on motion-sensitive technology with automatic shut-off timers. The use of stadium lighting should be avoided. Lighting should avoid high frequency (blue) range. All lighting should be compliant with "International Dark Sky Association" guidance. See www.darksky.org.
- Avoid the use of guy wires. If guy wires are necessary, utilize a wide range of bird diverters to make wires more visible to alert birds to the presence of wires and potentially minimize the number of birds that are injured by colliding with the wire. Collision with power lines is more common where power lines cross rivers and wetlands. As such, utilize avian diverters on transmission and power lines over waterways and within a 300-foot buffer within the shoreline to minimize collision risk. Minimize the usage of fences around the project area to minimize collision risk when possible. See Reducing Avian Collisions with Power Lines: The State of the Art in 2012 for further guidance on avian diverters.
- Site tall vertical structures, such as towers or light poles, away from riparian habitat. Vertical structures near riparian habitat should be minimized in number and height, provide as little structure and space as possible for perching, and be sited as far from riparian vegetation as possible. Cranes should be lowered while not in use to limit predator perching opportunities within and adjacent to riparian habitat. Anti-bird perch devices should be used for cranes, berms, levees, and other tall equipment that are impracticable to be lowered. Utilize monopole style bases for tower structures. Utilize as few power poles and light structures as possible.

GENERAL FISH[2]

- Disturbance to aquatic habitat should be avoided and/or minimized to the maximum extent practicable.
- Conduct pre-project surveys to assess species presence and spawning within or immediately adjacent to project areas. Surveys should be conducted by a qualified biologist.
- For projects that require fish rescue and relocation, contact the appropriate Service field office, as designated on the IPaC Official Species list, to develop a plan to relocate the fish.

[2] These general fish conservation measures are not applicable to federally listed desert fish. Contact the appropriate Service field office, as designated on the IPaC Official Species List, to determine appropriate conservation measures to implement to avoid and/or minimize impacts to desert fish.

- In-water work and water diversion of live flow during project activities within occupied habitat should be conducted in a manner to reduce potential impacts to rearing endangered fish species. Dewatering should be used to create a dry project area and should be conducted in a manner that minimizes turbidity into nearby waters. To the extent practicable, water diversion and dewatering should include the following measures:
    - Heavy equipment should avoid flowing water other than temporary crossing or diverting activities.
    - Water pumped or removed from dewatered areas should be treated before its release so that it does not contribute turbidity to nearby waters.
    - Pump intakes should be provisioned with National Marine Fisheries Service-approved fish screening as outlined in the California Department of Fish and Wildlife Fish Screening Criteria and National Marine Fisheries Service Fish Screening Criteria for Anadromous Salmonids.
    - Temporary culverts to convey live flow during project activities should be placed at stream grade and be of an adequate size as to not increase stream velocity.
    - Silt fences or mechanisms to avoid sediment input to the flowing channel should be erected adjacent to flowing water if sediment input to the stream may occur.
    - Following completion of activities that require water diversion and dewatering, the creek bottom within the work area should be recontoured to ensure there are no barriers to fish passage.
- Turbidity curtains should be used if turbidity monitoring indicates that turbidity levels would exceed regulatory thresholds, and their use is feasible given the existing site conditions at the time of project activities.
- Use a vibratory hammer when driving piles to reduce noise effects.
- Use silt curtains.
- If project activities include the creation of an overflow or flood-bypass channel in a river or stream potentially supporting endangered fish species, the design and construction of such a channel should allow fish passage out of the channel before waters dry up as the floodwater recedes.

NOAA Fisheries General Discretionary Conditions

- Safely relocate fish from construction areas using standard practices of care if it is feasible to do so (e.g., use buckets with aerators).
- Minimize or avoid operating heavy equipment in flowing or standing water.
- Employ appropriate best management practices to minimize sediment entering the aquatic environment (e.g., sediment settling basins, silt fences, revegetate banks, jute matting, coir wattles, etc.).
- Prevent hazardous material releases. Have spill response and cleanup plans on site and implement if hazardous material is released.
- Limit use of construction materials treated with hazardous chemicals (e.g. treated pilings).
- Use vegetation methods, bioengineering, or living shoreline approaches wherever possible.

- Prevent introduction of non-native species (e.g. ensure materials sources are free of non-native vegetation, for marine operations avoid ballast water releasing non-native organisms into nearshore.
- Avoid creating situations that could trap ESA-listed fish, turtles, or marine mammals within construction sites that occur in coastal waters.
- Minimize artificial lighting at night in the aquatic environment if possible. Use low intensity lighting or direct lighting away from water.