APPENDIX B

MITIGATION MEASURES, MONITORING AND REPORTING PROGRAM FOR THE 2024 FISHERIES RESTORATION GRANT PROGRAM'S MITIGATED NEGATIVE DECLARATION PROJECT

SECTION 1: MITIGATION

General mitigation measures are implemented for all action items. Specific mitigation measures are identified for the various species found at or near the project site. A CDFW grant manager is assigned to each action item and is responsible for ensuring the general and specific mitigation measures are implemented.

I. AESTHETICS

No specific mitigation measures are required to protect aesthetics.

II. AGRICULTURE RESOURCES

No specific mitigation measures are required to protect agricultural resources.

III. AIR QUALITY

No specific mitigation measures are required to protect air quality.

IV. BIOLOGICAL RESOURCES

A. General Measures for Protection of Biological Resources

1. **Timing**. To avoid impacts to aquatic habitat the activities carried out in the restoration program typically occur during the summer dry season where flows are low, or streams are dry.

2. Work around streams is restricted to the period of June 15 through November 1 or the first significant rainfall, whichever comes first. Actual project start and end dates, within this timeframe, are at the discretion of the Department of Fish and Wildlife (i.e., on the Shasta River, projects must be completed between July 1 and September 15 to avoid impacts to immigrating and emigrating salmonids). This is to take advantage of low stream flow and avoid the spawning and egg/alevin incubation period of salmon and steelhead.

3. Upslope work generally occurs during the same period as stream work. Road decommissioning and other sediment reduction activities are dependent on soil moisture content. Non jurisdictional upslope projects do not have seasonal restrictions in the Incidental Take Statement, but work may be further restricted at some sites to allow soils to dry out adequately. In some areas equipment access and effectiveness is constrained by wet conditions.

4. The approved work window for individual work sites will be further constrained as necessary to avoid the nesting or breeding seasons of birds and terrestrial animals. At most sites with potential for raptor (including Northern Spotted Owls) and migratory bird nesting, if work is conditioned to start after July 9, potential impacts will be avoided, and no surveys will be required. For work sites that might contain nesting Marbled Murrelets, the starting date will be September 16 in the absence of surveys. The work window at individual work sites could be advanced if surveys determine that nesting birds will not be impacted.

5. For restoration work that may affect swallow nesting habitat (such as removal or modification of bridges, culverts or other structures that show evidence of past swallow nesting activities), construction shall occur after August 31 to avoid the swallow nesting period. Suitable nesting habitat shall be netted prior to the breeding season to prevent nesting. Netting shall be installed before any nesting activity begins, generally prior to March 1. Swallows shall be excluded from areas where construction activities cause nest damage or abandonment.

6. All project activities shall be confined to daylight hours.

7. Projects shall not disturb or dewater more than 1,000 feet of contiguous stream reach.

8. During all activities at project work sites, all trash that may attract predators shall be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.

9. Staging/storage areas for equipment, materials, fuels, lubricants, and solvents, will be located outside of the stream's high-water channel and associated riparian area where it cannot enter the stream channel. Stationary equipment such as motors, pumps, generators, compressors, and welders located within the dry portion of the stream channel or adjacent to the stream, will be positioned over drip-pans. Vehicles will be moved out of the normal high-water area of the stream prior to refueling and lubricating. The grantee shall ensure that contamination of habitat does not occur during such operations. Prior to the onset of work, CDFW shall ensure that the grantee has prepared a plan to allow a prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

10. The number of access routes, number and size of staging areas, and the total area of the work site activity shall be limited to the minimum necessary to complete the restoration action while minimizing riparian disturbance without affecting less stable areas, which may increase the risk of channel instability. Existing roads shall be used to access work sites as much as practicable.

11. The access and work area limits shall be identified with brightly colored flagging or fencing. Flagging and fencing shall be maintained in good repair for the duration of project activities. All areas beyond the identified work area limits shall not be disturbed.

12. Any construction debris shall be prevented from falling into the stream channel. Any material that does fall into a stream during construction shall be immediately removed in a manner that has minimal impact to the streambed and water quality.

13. Where feasible, the construction shall occur from the bank, or on a temporary pad underlain with filter fabric.

14. Any work within the stream channel shall be performed in isolation from the flowing stream and erosion protection measures shall be in place before work begins.

    a. Prior to dewatering, the best means to bypass flow through the work area to minimize disturbance to the channel and avoid direct mortality of fish and other aquatic invertebrates shall be determined.

b. If there is any flow when work will be done, the grantee shall construct coffer dams upstream and downstream of the excavation site and divert all flow from upstream of the upstream dam to downstream of the downstream dam.

c. No heavy equipment shall operate in the live stream, except as may be necessary to construct coffer dams to divert stream flow and isolate the work site.

d. Coffer dams may be constructed with clean river run gravel or sandbags and may be sealed with sheet plastic. Upon project completion, sandbags and any sheet plastic shall be removed from the stream. Clean river run gravel may be left in the stream channel, provided it does not impede stream flow or fish passage and conforms to natural channel morphology without significant disturbance to natural substrate.

e. Dewatering shall be coordinated with a qualified fisheries biologist to perform fish and wildlife relocation activities.

f. The length of the dewatered stream channel and the duration of the dewatering shall be kept to a minimum and shall be expected to be less than 1,000 contiguous feet.

g. When bypassing stream flow around work area, stream flow below the construction site shall be maintained similar to the unimpeded flow at all times.

h. The work area shall be periodically pumped dry of seepage. Pumps shall be placed in flat areas, away from the stream channel. Pumps shall be secured by tying off to a tree or staked in place to prevent movement by vibration. Pump intakes shall be covered with 1/8-inch mesh to prevent entrainment of fish or amphibians that failed to be removed. Pump intakes shall be periodically checked for impingement of fish or amphibians and shall be relocated according to the approved measured outlined for each species below.

i. If necessary, flow shall be diverted around the work site, either by pump or by gravity flow, the suction end of the intake pipe shall be fitted with fish screens meeting CDFW and NOAA criteria to prevent entrainment or impingement of small fish. Any turbid water pumped from the work site itself to maintain it in a dewatered state shall be disposed of in an upland location where it will not drain directly into any stream channel.

j. Fish shall be excluded from the work area by blocking the stream channel above and below the work area with fine-meshed net or screen. Mesh shall be no greater than 1/8-inch diameter. The bottom edge of the net or screen shall be completely secured to the channel bed to prevent fish from reentering the work area. Exclusion screening shall be placed in areas of low water velocity to minimize fish impingement. Screens shall be regularly checked and cleaned of debris to permit free flow of water.

15. Where the disturbance to construct coffer dams to isolate the work site would be greater than to complete the action (for example, placement of a single boulder cluster), the action shall be carried out without dewatering and fish relocation. Furthermore, measures shall be put in place immediately downstream of the work site to capture suspended sediment. This may include installation of silt catchment fences across the stream, or placement of a filter berm of clean river gravel. Silt fences and other non-native materials will be removed from the stream following completion of the activity. Gravel berms may be left in the stream channel provided it does not impede stream flow or fish

passage and conforms to natural channel morphology without significant disturbance to natural substrate.

16. Best management practices associated with fish screens and measures to minimize effects to salmonids associated with fish screen construction, maintenance, and repair are presented below:

    a. Screening projects shall only take place on diversions with a capacity of 60 cfs or less. Screening larger diversions shall require separate consultation. Fish screens shall be operated and maintained in compliance with current law, including Fish and Game Code, and CDFW fish screening criteria.

    b. Notwithstanding Fish and Game Code Section 6027, fish screens and bypass pipes or channels shall be in-place and maintained in working order at all times while water is being diverted.

    c. If a screen site is dewatered for repairs or maintenance when targeted fish species are likely to be present, measures shall be taken to minimize harm and mortality to targeted species resulting from fish relocation and dewatering activities. The responsible party shall notify CDFW before the project site is de-watered and streamflow diverted. The notification shall provide a reasonable time for personnel to supervise the implementation of a water diversion plan and oversee the safe removal and relocation of salmonids and other fish life from the project area. If the project requires site dewatering and fish relocation, the responsible party shall implement the dewatering and relocation measures as described in this document to minimize harm and mortality to listed species.

    d. If a fish screen is removed for cleaning or repair, measures shall be undertaken to ensure juvenile fish are not passively entrained into the diversion canal. The area shall be isolated, cleared of fish, and dewatered prior to screen maintenance or replacement. If dewatering the work area is infeasible, then the area in front of the screen shall be cleared of fish utilizing a seine net that remains in place until the project is complete. In the case of a damaged screen, a replacement screen shall be installed immediately, or the diversion shut down until a screen is in place.

    e. Fish screens shall be inspected and maintained regularly (not less than two times per week) to ensure that they are functioning as designed and meet CDFW fish screening criteria. During the diversion season, screens shall be visually inspected while in operation to ensure they are performing properly. Outside the diversion season when the screening structure is dewatered, the screen and associated diversion structure shall be more thoroughly evaluated.

    f. Existing roads shall be used to access screen sites with vehicles and/or equipment whenever possible. If it is necessary to create access to a screen site for repairs or maintenance, access points shall be identified at stable stream bank locations that minimize riparian disturbance.

    g. Sediment and debris removal at a screen site shall take place as often as needed to ensure that screening criteria are met. Sediment and debris shall be removed and disposed of at a location where it will not re-enter the water course.

    h. Stationary equipment used in performing screen maintenance and repairs, such as motors, pumps, generators, and welders, located within or adjacent to a stream shall be positioned over drip pans.

i. Equipment which is used to maintain and/or repair fish screens shall be in good condition and checked and maintained on a daily basis to prevent leaks of materials that could be deleterious to aquatic life, wildlife, or riparian habitat.

j. To the extent possible repairs to a fish screen or screen site shall be made during a period of time when the target species of fish are not likely to be present (for example, in a seasonal creek, repair work should be performed when the stream is dry).

k. Equipment used to maintain and/or repair fish screens shall not operate in a flowing stream except as may be necessary to construct coffer dams to divert stream flow and isolate the work site.

l. Turbid water which is generated by screen maintenance or repair activities shall be discharged to an area where it will not re-enter the stream. If the CDFW determines that turbidity/siltation levels resulting from screen maintenance or repair activities constitute a threat to aquatic life, all activities associated with the turbidity/siltation shall cease until effective CDFW-approved sediment control devices are installed and/or abatement procedures are implemented.

17. Any equipment entering the active stream (for example, in the process of installing a coffer dam) shall be preceded by an individual on foot to displace wildlife and prevent them from being crushed.

18. If any non-special status wildlife are encountered during the course of construction, said wildlife shall be allowed to leave the construction area unharmed, and shall be flushed, hazed, or herded in a safe direction away from the project site. “Special status wildlife” is defined as any species that meets the definition of “endangered, rare, or threatened species” in § 15380, Article 20 in Title 14 of the California Code of Regulations, also known as the “CEQA Guidelines”.

19. Any red tree vole nests encountered at a work site shall be flagged and avoided during construction.

20. For any work sites containing western pond turtles, salamanders, foothill yellow-legged frogs, California red-legged frogs, or tailed frogs, the grantee shall provide to the CDFW grant manager for review and approval, a list of the exclusion measures that will be used at their work site to prevent take or injury to any individual pond turtles, salamanders, or frogs that could occur on the site. The grantee shall ensure that the approved exclusion measures are in place prior to construction. Any turtles or frogs found within the exclusion zone shall be moved to a safe location upstream or downstream of the work site, prior to construction.

21. All habitat improvements shall be done in accordance with techniques in the California Salmonid Stream Habitat Restoration Manual or other approved guidelines and manuals for salmon and steelhead habitat restoration. The most current version of the manual is available at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=22610&inline and other approved guidelines and manuals are available at: http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=183423.

22. The grantee shall have dependable radio or phone communication on-site to be able to report any accidents or fire that might occur.

23. Installation of bridges, culverts, or other structures shall be done so that water flow is not impaired and upstream and downstream passage of fish is assured at all times. Bottoms of temporary culverts shall be placed at or below stream channel grade.

24. Temporary fill shall be removed in its entirety prior to close of work-window.

B. Specific Measures for Endangered, Rare, or Threatened Species That Could Occur at Specific Work Sites

Rare Plants

The work sites for the 2024 FRGP MND project are within the range of a variety of rare plant species. The plant species found on a State or Federal special status list that might be associated with the 2024 FRGP MND project, was determined from a search of CDFW's Natural Diversity Database. Because of the large number of widely scattered work sites proposed, it is not feasible to survey individual work sites in advance and still be able to implement the restoration projects, due to time limits on the availability of restoration funds. Lists of special status plant species that might occur at individual work sites are presented in Appendix A. Experience with grant projects from previous years has shown that the potential for adverse impacts on rare plants at salmonid restoration work sites is very low. Before a Notice to Proceed is given to the grantee to begin implementation work, all botanical surveys following the "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities" shall be completed and produced to a project's CDFW grant manager. In order to avoid impacts to rare plants during the 2024 FRGP MND project, the following mitigation measures will be implemented:

1. A qualified biological consultant shall survey all work sites for rare plants prior to any ground disturbing activities. Rare plant surveys will be conducted following the "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities" (CDFW, 2018). These guidelines are available in Appendix C or on the web at: https://www.wildlife.ca.gov/Conservation/Plants.

2. If any special status plant species are identified at a work site, CDFW shall require one or more of the following protective measures to be implemented before work can proceed:

   I. Fencing to prevent accidental disturbance of rare plants during construction,

   II. On-site monitoring by a qualified biologist during construction to assure that rare plants are not disturbed, or

   III. Redesign of proposed work to avoid disturbance of rare plants.

Butterfly	Host Plant
Mission Blue Butterfly (*Icaricia icarioides missionensis*) - Endangered	Silver Bush Lupine (*Lupinus albifrons*)
San Bruno Elfin Butterfly (*Callophrys mossii bayensis*) - Endangered	Stonecrop (*Sedum spathulifolium*)
Callippe Silverspot Butterfly (*Speyeria callippe callippe*) - Endangered	Johnny Jump Up (*Viola pedunculata*)

3. Plant surveys will also include any host plants for butterflies identified as occurring in the area either in the CNDDB or the official species list. These host plants are as follows for each butterfly:

Myrtle's Silverspot (*Speyeria zerene myrtleae*) - Endangered	Hookedspur Violet (*Viola adunca*)
Bay Checkerspot Butterfly (*Euphydryas editha bayensis*) - Threatened	Native Plantain (*Plantago erecta*)
Smith's Blue Butterfly (*Euphilotes enptes smithi*)-Endangered	Buckwheat (*Eriogonum latifolium*) and Seacliff Buckwheat (*Eriogonum parvifolium*)

4. If any host plant species are identified at a work site, CDFW shall require one or more of the following protective measures to be implemented before work can proceed:

    - Fencing to prevent accidental disturbance of larval host plants during construction,
    - On-site monitoring by a qualified biologist during construction to assure that larval host plants are not disturbed, and
    - Redesign of proposed work to avoid disturbance of larval host plants.
    - If it becomes impossible to implement the project at a work site without impacts to larval host plants, then activity at that work site shall not proceed. If it becomes impossible to implement the project at a work site without potentially significant impacts to rare plants, then activity at that work site shall be discontinued.
    - CDFW shall ensure that the grantee or responsible party is aware of these site-specific conditions, and shall inspect the work site before, during, and after completion of the action item.

Arroyo Toad (Anaxyrus californicus)

Arroyo Toad has been listed as federally endangered since 1995. Historically Arroyo Toad was abundant from Monterey to San Diego and northern Baja California. Due to loss of habitat and predation from the non-native American Bullfrog (Litholbates castesbeianus) the species currently only occupies 65% of its historic range. Two (2) of the 14 projects proposed as part of the 2024 FRGP MND project occurs within the range of arroyo toad. Activities proposed for the sites (1732319 – Ventura River Arundo Removal & Riparian Restoration - South Santa Ana Site (HR), 1732240 - Maria Ygnacio Creek Fish Passage Implementation Project--UPRR Crossing) (Appendix A) will not remove, degrade, or downgrade suitable arroyo toad habitat. Precautions will still be taken to avoid potentially significant impacts to the arroyo toad while using heavy equipment. The potential for impacts to arroyo toads will be mitigated by complying with the terms and conditions set forth in this section. Measures for minimization and avoidance of incidental take of arroyo toads must be developed on a site and project-specific basis. CDFW shall implement the additional following measures to minimize adverse effects to the arroyo toad and its habitat:

1. The proponent shall retain a biologist who is familiar with arroyo toads to monitor all construction activities and assist the proponent in the implementation of the monitoring program. This person will be approved by the USFWS prior to the onset of ground-disturbing activities. The authorized biologist will be present during all dewatering and relocation efforts.
2. Prior to the onset of construction activities, the proponent shall provide all personnel who will be present on work areas within or adjacent to the project area the following information:
    i. A detailed description of the arroyo toad's physical characteristics and life history, including color photographs.

    ii. The protection the arroyo toad receives under the Endangered Species Act and possible legal action that may be incurred for violation of the act.

    iii. The protective measures being implemented to conserve the arroyo toad and other species during construction activities associated with the proposed project; and

    iv. A point of contact if arroyo toads are observed.

3. All trash that may attract predators of the arroyo toad, e.g., food scraps, will be removed from work sites or completely secured at the end of each workday.
4. USFWS-approved biologist(s) who handle arroyo toads shall ensure that their activities do not transmit diseases. To ensure that diseases are not conveyed between work sites by the USFWS-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force (http://www.fws.gov/ventura/docs/species/protocols/DAFTA.pdf) shall be followed at all times.

5. A USFWS-approved biologist shall survey the project site at least two weeks before the onset of activities. If arroyo toads are found in the project area and these individuals are likely to be killed or injured by work activities, the USFWS-approved biologist will allow sufficient time to move them from the site before work activities resume. Only USFWS-approved biologists will participate in activities with the capture, handling, and monitoring of arroyo toads.

6. Before any project-related activities, the approved biologist must identify appropriate areas to receive arroyo toads' adults and tadpoles from the project areas. These areas must be in proximity to the capture site, contain suitable habitat, not be affected by project activities, and be free of exotic predatory species (e.g., bullfrogs, crayfish) to the best of the approved biologist's knowledge.

7. A USFWS-approved biologist shall be present at the work site until such time as removal of arroyo toads, instruction of workers, and habitat disturbance has been completed. The USFWS-approved biologist shall have the authority to halt any action that might result in impacts that exceed the levels anticipated by the USACE and USFWS during review of the proposed action. If work is stopped, the USACE and the USFWS shall be notified immediately by the USFWS-approved biologist or on-site biological monitor.

8. If arroyo toads are found during construction and these individuals are likely to be killed or injured by work activities, the USFWS-approved biologists must be allowed sufficient time to move them from the site before work activities resume. The USFWS-approved biologist must relocate the arroyo toads the shortest distance possible to one of the predetermined areas. The USFWS-approved biologist must maintain detailed records of any individuals that are moved (e.g., size, coloration, any distinguishing features, photographs (digital preferred) to assist in determining whether translocated

animals are returning to the point of capture. Only arroyo toads that are at risk of injury or death by project activities may be moved.

9. If a work site is to be temporarily dewatered by pumping, intakes shall be completely screened with wire mesh not larger than 0.125-inch to prevent arroyo toads from entering the pump system. Water shall be released or pumped downstream at an appropriate rate to maintain down stream flows during construction activities and eliminate the possibility of ponded water. Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow to resume with the lease disturbance to the substrate.

10. Ponded areas shall be monitored for arroyo toads that may become entrapped. Any entrapped arroyo toad shall be relocated to a pre-determined receiving area by a USFWS-approved biologist.

11. A USFWS-approved biologist will permanently remove, exotic species, such as bullfrogs (*Rana catesbiana),* centrarchid fishes, and non-native crayfish from the project area to the maximum extent possible. The biologist will have the responsibility to ensure that their activities are in compliance with the Fish and Game Code.

12. The CDFW or USACE shall report any observation of arroyo toad incidental take associated with the implementation of the Restoration Program projects in accordance with RGP-78. The USFWS and the USACE must review the circumstances surrounding the incident to determine whether any patterns of repeated authorized or unauthorized activities are occurring that may indicate that additional protective measures are required. If, after completion of the review, the USACE and the USFWS agree that additional protective measures are required and can be implemented within the existing scope of the action, the USACE must require the CDFW to implement the agreed-upon measures within a reasonable time frame; if the corrective actions cannot be implemented with the scope of the existing action, the USACE and USFWS will determine whether re-initiation of consultation is appropriate.

13. Despite term and condition "l)" of this section (above), the USACE must immediately re-initiate formal consultation with the USFWS, pursuant to 7(a) (2) of the Endangered Species Act, if arroyo toads are taken within the action area at or in excess of the incidental take anticipated in the Incidental Take Statement section of the U.S, Fish and Wildlife biological opinion (file no. 2008-F-0441), whether by project or by year.

14. If these mitigation measures cannot be implemented or the project activities proposed at a specific work site cannot be modified to prevent or avoid potential impacts to arroyo toads or their habitat, then project activity at that work site shall be discontinued.

California Freshwater Shrimp (Syncaris pacifica)

California Freshwater Shrimp was State and Federally listed as endangered starting in 1980 and 1988, respectively. The California Freshwater Shrimp is found in low elevation, low gradient, freshwater streams in Marin, Napa, and Sonoma counties. One (1) of the 14 projects proposed as part of the 2024 FRGP MND project occurs within the range of California freshwater shrimp (CFS). Activities proposed for the site (1732240 – Maria Ygnacio Creek Fish Passage Implementation Project--UPRR Crossing) (Appendix A) will not remove, degrade, or downgrade suitable California Freshwater Shrimp habitat. CDFW shall implement all of the mandatory terms and conditions associated with incidental take authorized by the U.S. Fish and Wildlife Service (USFWS), Biological Opinion (file no. 08ESMF00-2016-F-0874) to avoid any potential impact to habitat within project sites. Additionally,

CDFW proposes to implement the following measures to minimize adverse effects to the CFS and its habitat if found onsite:

1. Project activities in potential shrimp habitat shall be restricted to the period between July 1 and November 1.

2. At least 15 days prior to the onset of activities, CDFW shall submit the name(s) and credentials of biologists who will conduct activities specified in the following measures to the USFWS. The grantee shall implement any additional conservation measures requested by CDFW and/or the USFWS.

3. CDFW shall be notified at least one week in advance of the date on which work will start in the stream, so that a qualified CDFW biologist can monitor activities at the work site. All work in the stream shall be stopped immediately if it is determined by CDFW that the work has the potential to adversely impact shrimp or its habitat. Work shall not recommence until CDFW is satisfied that there will be no impact on the shrimp.

4. Where appropriate, a USFWS-approved CDFW biologist will survey each site for shrimp before allowing work to proceed and prior to issuance of a Streambed Alteration Agreement. All overhanging vegetation, undercut banks, and tree roots will be surveyed with a butterfly net or fish net.

5. Prior to the onset of work at a work site that may contain shrimp, the USFWS-approved CDFW biologist shall conduct a training session for all construction personnel. At a minimum the training shall include a description of the shrimp and its habitat, the importance of the shrimp and its habitat, the general measures that are being implemented to conserve the shrimp as they relate to the work site, and the work site boundaries where construction may occur.

6. Only USFWS-approved biologists shall participate in the capture, handling, and monitoring of shrimp. CDFW shall report annually on the number of captures, release and injuries/mortality and agrees to modify capture/release strategy with USFWS staff as needed to prevent adverse effects.

7. In site locations where shrimp are present, CDFW will require the grantee to implement the mitigation measures listed:

    i. Equipment work shall be performed only in riffle, shallow run, or dry habitats, avoiding low velocity pool, and run habitats occupied by shrimp, unless shrimp are relocated according to the protocol described below. “Shallow” run habitat is defined as a run with a maximum water depth, at any point, less than 12-inches, and without undercut banks or vegetation overhanging into the water.

    ii. Hand placement of logs or rocks shall be permitted in pool or run habitat in stream reaches where shrimp are known to be present, only if the placement will not adversely affect shrimp or their habitat.

    iii. Care shall be taken during placement or movement of materials in the stream to prevent any damage to undercut stream banks and to minimize damage to any streamside vegetation. Streamside vegetation overhanging into pools or runs shall not be removed, trimmed, or otherwise modified.

    iv. No log or rock weirs (including vortex rock weirs), or check dams shall be constructed that would span the full width of the low flow stream channel. Vegetation shall be

incorporated with any structures involving rocks or logs to enhance migration potential for shrimp.

v. No dumping of dead trees, yard waste or brush shall occur in shrimp streams, which may result in oxygen depletion of aquatic systems.

8. If in the opinion of the USFWS-approved biologist, adverse effects to shrimp would be further minimized by moving shrimp away from the project site, the following procedure shall be used:

    i. A second survey shall be conducted within 24 hours of any construction activity and shrimp shall be relocated to the nearest suitable habitat. Shrimp shall be moved while in the net or placed in buckets containing stream water. Stress and temperature monitoring of shrimp shall be performed by the USFWS-approved biologist. Numbers of shrimp and any mortalities or injuries shall be identified and recorded. Shrimp habitat is defined as reaches in low elevation (less than 116 m) and low gradient (less than one percent) streams where banks are structurally diverse with undercut banks, exposed fine root systems, overhanging woody debris or overhanging vegetation.

    ii. When no other habitat exists on a landowner's property, the shrimp shall be held in suitable containers with site water and released as soon as possible. Containers shall be placed in the shade.

9. If moving the shrimp out of the work area cannot be accomplished, and other avoidance measures have been deemed inappropriate, CDFW shall drop activities at the work site from the project.

10. A USFWS-approved CDFW biologist shall be present at the work site until such time as all removal of shrimp, instruction of workers, and habitat disturbance associated with the restoration project have been completed. The USFWS-approved biologist shall have the authority to halt any action that might result in the loss of any shrimp or its habitat. If work is stopped, the USFWS-approved biologist shall immediately notify CDFW and the USFWS.

11. If a work site is temporarily dewatered by pumping, intakes shall be completely screened with wire mesh no larger than 0.2-inch to prevent shrimp from entering the pump system. Water shall be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow with the least disturbance to the substrate.

12. A USFWS-approved biologist shall permanently remove from within the project work site, any individuals of exotic species, such as bullfrogs, centrarchid fishes, and non-native crayfish, to the maximum extent possible. The grantee shall have the responsibility that such removals are done in compliance with the California Department of Fish and Wildlife.

13. Invasive non-native vegetation that provides shrimp habitat and is removed as a result of Program activities shall be replaced with native vegetation that provides comparable habitat for the shrimp. Re-vegetated sites shall be irrigated as necessary until vegetation is established. Re-vegetated sites shall be monitored until shading and cover achieves 80% of pre-project shading and cover and for a minimum of five years.

California Red-Legged Frog (Rana draytonii)

California Red-Legged frog was listed as federally threatened as of 1996. More than 90% of the California Red-Legged frog's habitat has been lost due to urban and agriculture development. Historically the frog was found from southern Mendocino county, inland to Shasta county, and south to Baja California, Mexico. Five (5) of the 14 projects proposed as part of the 2024 FRGP MND project occur within the range of the California red-legged frog (CRLF). Activities proposed for the sites (1732280 -- Soda Creek Fish Passage and Habitat Enhancement Project, 1732246 – Windler Floodplain Habitat Enhancement, 1732261 -- Robinson Creek Instream Habitat Enhancement, 1732319 -- Ventura River Arundo Removal & Riparian Restoration - South Santa Ana Site (HR), 1732240 -- Maria Ygnacio Creek Fish Passage Implementation Project--UPRR Crossing) (Appendix A) will not remove, degrade, or downgrade suitable CRLF habitat. Precautions will still be taken to avoid potentially significant impacts to the CRLF while using heavy equipment. The potential for impacts to CRLF will be mitigated by complying with all of the mandatory terms and conditions associated with incidental take authorized by the USFWS, Biological Opinion to avoid any potential impact to habitat within project sites. Additionally, CDFW proposes to implement the following measures to minimize adverse effects to the CRLF and its habitat:

1. Project activities in potential red-legged frog habitat shall be restricted to the period between July 1 and October 15.

2. At least 15 days prior to the onset of project activities, CDFW shall submit the names(s) and credentials of biologists who would conduct activities specified in the following measures. No project activities shall begin until CDFW has received written approval from the USFWS that the biologist(s) is qualified to conduct the work.

3. USFWS-approved biologist(s) who handle red-legged frogs shall ensure that their activities do not transmit diseases. To ensure that diseases are not conveyed between work sites by the USFWS-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force (http://www.fws.gov/ventura/docs/species/protocols/DAFTA.pdf) shall be followed at all times.

4. A CDFW monitoring plan shall be developed to determine the level of incidental take of red-legged frogs associated with the Restoration Program funded activities in the area. The monitoring plan must include a standardized mechanism to report any observations of dead or injured red-legged frogs to the appropriate USACE and USFWS offices.

5. A USFWS-approved biologist shall survey the project site at least two weeks before the onset of activities. If red-legged frogs are found in the project area and these individuals are likely to be killed or injured by work activities, the USFWS-approved biologist will allow sufficient time to move them from the site before work activities resume. Only USFWS-approved biologists will participate in activities with the capture, handling, and monitoring of red-legged frogs.

6. Before any project-related activities, the approved biologist must identify appropriate areas to receive red-legged frog adults and tadpoles from the project areas. These areas must be in proximity to the capture site, contain suitable habitat, not be affected by project activities, and be free of exotic predatory species (e.g., bullfrogs and crayfish) to the best of the approved biologist's knowledge.

7. Prior to the onset of project activities, a USFWS-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the red-legged frog

and its habitat, the importance of the red-legged frog and its habitat, the general measures that are being implemented to conserve the red-legged frog as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

8. A USFWS-approved biologist shall be present at the work site until such time as removal of red-legged frogs, instruction of workers, and habitat disturbance has been completed. The USFWS-approved biologist shall have the authority to halt any action that might result in impacts that exceed the levels anticipated by the USACE and USFWS during review of the proposed action. If work is stopped, the USACE and the USFWS shall be notified immediately by the USFWS-approved biologist or on-site biological monitor.

9. If red-legged frogs are found and these individuals are likely to be killed or injured by work activities, the USFWS-approved biologists must be allowed sufficient time to move them from the site before work activities resume. The USFWS-approved biologist must relocate the red-legged frogs the shortest distance possible to one of the predetermined areas. The USFWS-approved biologist must maintain detailed records of any individuals that are moved (e.g., size, coloration, any distinguishing features, photographs (digital preferred) to assist in determining whether translocated animals are returning to the point of capture. Only red-legged frogs that are at risk of injury or death by project activities may be moved.

10. If a work site is to be temporarily dewatered by pumping, intakes shall be completely screened with wire mesh not larger than 0.125-inch to prevent red-legged frogs from entering the pump system. Water shall be released or pumped downstream at an appropriate rate to maintain down stream flows during construction activities and eliminate the possibility of ponded water. Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow to resume with the lease disturbance to the substrate.

11. Ponded areas shall be monitored for red-legged frogs that may become entrapped. Any entrapped red-legged frog shall be relocated to a pre-determined receiving area by a USFWS-approved biologist.

12. A USFWS-approved biologist will permanently remove from the project area, any individuals of exotic species, such as bullfrogs (*Rana catesbiana),* centrarchid fishes, and non-native crayfish to the maximum extent possible. The biologist will have the responsibility to ensure that their activities are in compliance with the Fish and Game Code.

13. The CDFW or USACE shall report any observation of the incidental take of red-legged frogs associated with the implementation of the Restoration Program projects in accordance with RGP78. The USFWS and the USACE must review the circumstances surrounding the incident to determine whether any patterns of repeated authorized or unauthorized activities are occurring that may indicate that additional protective measures are required. If, after completion of the review, the USACE and the USFWS agree that additional protective measures are required and can be implemented within the existing scope of the action, the USACE must require the CDFW to implement the agreed-upon measures within a reasonable time frame; if the corrective actions cannot be implemented with the scope of the existing action, the USACE and USFWS will determine whether re-initiation of consultation is appropriate.

14. Despite term and condition “i)” of this section (above), the USACE must immediately re-initiate formal consultation with the USFWS, pursuant to 7(a) (2) of the Endangered Species Act, if red-legged frogs

are taken within the action area at or in excess of the incidental take anticipated in the Incidental Take Statement section of the U.S, Fish and Wildlife biological opinion (file no. 2008-F-0441), whether by project or by year.

15. If these mitigation measures cannot be implemented or the project activities proposed at a specific work site cannot be modified to prevent or avoid potential impacts to CRLF or its habitat, then project activity at that work site shall be discontinued.

California Tiger Salamander (Ambystoma californiense)

The California Tiger Salamander is listed as state threatened throughout its range and is listed as federally endangered or threatened for specific distinct populations. Six populations of the salamander are categorized in California including: Sonoma county, Santa Barbera County, The Bay Area, Central Valley, Southern San Joaquin Valley, and the Central Coast Range. The segments listed as federally endangered are located in Sonoma county, Santa Barbara County, and Central California. None of the 14 proposed projects in the 2024 FRGP MND project are within the range of the California tiger salamander. California tiger salamanders primarily use ponds and vernal pools for breeding and grassland habitat for estivation, both of which are not usually in proximity to anadromous fish-bearing streams. If it is determined that an individual project could adversely affect Central California or Sonoma County California tiger salamanders or their critical habitat, the project proponents will consult with the Sacramento Fish and Wildlife Office to determine appropriate avoidance and minimization measures and determine if additional consultation is needed.

Foothill Yellow-Legged Frog (Rana boylii)

The Foothill Yellow-Legged Frog CESA status varies by clade; listing of the Northwest/North Coast clade is not warranted. The Feather River DPS is state threatened and federally proposed-threatened. The north Sierra DPS is state threatened, the Central Coast DPS is state endangered and federally proposed- threatened. The South Sierra DPS and South Coast DPS are both state endangered and federally proposed- endangered. All the proposed 14 projects proposed as part of the 2024 FRGP MND project occur within the range of FYLF habitat. However, all except two projects are within the range of the North Coast DPS, and therefore are not threatened or endangered. Activities proposed for the two project sites (1732319 -- Ventura River Arundo Removal & Riparian Restoration - South Santa Ana Site (HR), 1732240 -- Maria Ygnacio Creek Fish Passage Implementation Project--UPRR Crossing) (Appendix A) will not remove, degrade, or downgrade suitable FYLF habitat. Precautions will still be taken to avoid potentially significant impacts to the FYLF while using heavy equipment. The potential for impacts to FYLF will be mitigated by complying with all of the mandatory terms and conditions associated with incidental take authorized by the USFWS, Biological Opinion to avoid any potential impact to habitat within project sites. Precautions may still be taken in other project sites to avoid potentially significant impacts to the FYLF while using heavy equipment. The potential for impacts to FYLFs will be mitigated by complying with the terms and conditions set forth in this section. Measures for minimization and avoidance of incidental take of FYLF must be developed on a site and project-specific basis. CDFW's *Considerations for Conserving the Foothill Yellow-Legged Frog* (May 2018) provides guidance and examples of avoidance and minimization measures, invasive non-native control and eradication, and a riparian enhancement plan for the species. CDFW shall implement the additional following measures to minimize adverse effects to the FYLF and its habitat:

1. Prior to start of work, all permits necessary to survey, handle, and relocate FYLFs shall be obtained. All best management practices, special conditions, mitigation, and avoidance measures of any take permit obtained shall be complied with.

2. Within 3-5 days prior to entering or working near stream/riparian habitat within the foothill yellow-legged frog range, a qualified biologist shall examine the project site to determine the presence and/or the potential for presence of FYLF adults, juveniles, tadpoles, or egg masses within the project area and 300 feet upstream and downstream.

3. The biologist must be able to recognize all potential age classes of FYLFs relative to other amphibians in the project area.

4. The CDFW approved biologist(s) shall ensure that their activities do not transmit diseases. To ensure that diseases are not conveyed between work sites by the approved biologist, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force (http://www.fws.gov/ventura/docs/species/protocols/DAFTA.pdf) shall be followed at all times.

5. If any life stage of FYLFs are found, the biologist must consult with CDFW immediately by either telephone, facsimile, or e-mail, and provide a short description of existing conditions and observations, and a list of all species observed during the examination.

6. Site-specific mitigation measures to avoid or minimize take and to avoid or minimize disturbance to FYLF habitat shall be developed and approved by the CDFW. Work shall not commence until the CDFW has provided written approval of the proposed mitigation measures and any permit to relocate FYLFs have been obtained

7. The approved biologist will dispatch and remove from the project area, any individuals of exotic species, such as bullfrogs (*Lithobates catesbeianus*), centrarchid fishes, and non-native crayfish to the maximum extent possible. The biologist will have the responsibility to ensure that their activities are in compliance with the Fish and Game Code.

8. If these mitigation measures cannot be implemented or the project activities proposed at a specific work site cannot be modified to prevent or avoid potential impacts to FYLF or its habitat, then project activity at that work site shall be discontinued.

Least Bell's Vireo (Vireo bellii pusillus)

The Least Bell's Vireo is listed as state and federally endangered in 1980 and 1986, respectively. Least Bell's Vireo is believed or known to occur in the following counties: Imperial, Inyo, Kern, Los Angeles, Monterey, Orange, Riverside, Sacramento, San Benito, San Diego, San Joaquin, San Luis Obispo, Santa Barbara, Santa Clara, Santa Cruz, Stanislaus, Tulare, Ventura, and Yolo. Two (2) of the 14 projects proposed as part of the 2024 FRGP MND project are within the range of the Least Bell's Vireo. Activities proposed for the project sites (1732319 – Ventura River Arundo Removal & Riparian Restoration - South Santa Ana Site (HR), 1732240 – Maria Ygnacio Creek Fish Passage Implementation Project--UPRR Crossing) will not remove, degrade, or downgrade suitable Least Bell's Vireo habitat or result in direct injury or mortality. The potential does exist however for noise from heavy equipment work and the harvesting of willow branches for revegetation at these sites to disrupt Least Bell's Vireo nesting. To avoid this potential impact, the following mitigation measures will be implemented:

1. Work shall not begin within one quarter mile of any site with known or potential habitat for the Least Bell's Vireo until after September 15.

2. Harvest of willow branches at any site with potential habitat for the Least Bell's Vireo will not occur between March 1 and September 15.

3. The work window at individual work sites may be modified, if protocol surveys determine that nesting birds do not occur within 0.25-miles of the site during the breeding season.

4. CDFW shall ensure that the grantee or responsible party is aware of this site-specific condition, and will inspect the work site before, during, and after completion of the action item.

5. If for some reason these mitigation measures cannot be implemented or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential impacts to Least Bell's Vireo or their habitat, then activity at that work site will be discontinued.

Marbled Murrelet (Brachyrampus marmoratus)

Marbled Murrelet is listed as state endangered and federally threatened as of 1992. Marbled Murrelet is a sea bird located along the northern pacific coast and bays. Nesting habitats include mountains near the coast. Most of the foraging is done in shallow water and is sometimes found in lakes near the coast. Marbled Murrelet has experienced serious population declines in recent years. Five (5) of the 14 projects proposed as part of the 2024 FRGP MND project are in potentially suitable habitat for the Marbled Murrelet. Activities proposed for the sites (1732224 – Chamberlain Creek Fish Passage Implementation Project, 1732280 - Soda Creek Fish Passage and Habitat Enhancement Project, 1732261 - Robinson Creek Instream Habitat Enhancement, 1732240 – Maria Ygnacio Creek Fish Passage Implementation Project--UPRR Crossing, 1732364 - Eel River Arundo Eradication Phase 4) (Appendix A) will not remove, degrade, or downgrade suitable Marbled Murrelet habitat. As a result, direct injury or mortality of Marbled Murrelets is not an issue. The potential exists for noise from heavy equipment work at these sites to disrupt Marbled Murrelet nesting. To avoid this potential impact, the following mitigation measures shall be implemented:

1. Restoration work in areas considered by the Arcata and Ventura USFWS offices shall not be conducted within 0.25-mile of occupied or un-surveyed suitable Marbled Murrelet habitat between March 24 and September 15. Restoration work in areas considered by the Sacramento USFWS Office shall not be conducted within 0.25-mile of any occupied or un-surveyed suitable Marbled Murrelet habitat between November 1 and September 15.

2. The work window at individual work sites near suitable habitat may be modified, if protocol surveys determine that habitat quality is low, and occupancy is very unlikely.

3. If these mitigation measures cannot be implemented or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential adverse effects to Marbled Murrelet or their habitat, then activity at that work site shall be discontinued.

4. For projects contained in streams and watersheds included in a USFWS Habitat Conservation Plan the mitigation measures contained within those Habitat Conservation Plans shall be followed.

Western Burrowing Owl (Athene cunicularia hypugaea)

On October 10, 2024, the California Fish and Game Commission voted to designate western burrowing owl (BUOW) as a candidate species under the California Endangered Species Act. CDFW does not expect Project activities to cause take of BUOW, and CDFW finds that there is no substantial evidence that the Project will have a significant impact to BUOW or potential BUOW habitat.

A USFWS approved biologist will conduct preconstruction surveys and monitor for BUOW and potential BUOW habitat prior to implementation of project activities. At least one preconstruction survey for BUOW and potential BUOW habitat shall be completed no more than 48 hours prior to implementation of project activities, as BUOW are quick to inhabit burrows. These preconstruction surveys shall follow the guidance on BUOW survey and habitat assessment methods in CDFW's ~~Staff Report on Burrowing Owl Mitigation~~ (March 2012).

If BUOW presence is detected on site before or during project work, the construction contractor shall stop work and contact the CDFW Regulatory Coordinator by phone or email within 24 hours of the observation to consult on the appropriate measures to avoid or minimize impacts of the project to BUOW.

Western Yellow-Billed Cuckoo

Two (2) of the 14 projects proposed as part of the 2024 FRGP MND project are in potentially suitable habitat for the Western Yellow-Billed Cuckoo. Activities proposed for the sites (1732319 – Ventura River Arundo Removal & Riparian Restoration - South Santa Ana Site (HR), 1732240 – Maria Ygnacio Creek Fish Passage Implementation Project--UPRR Crossing) (Appendix A) will not remove, degrade, or downgrade suitable western yellow-billed cuckoo habitat or result in direct injury or mortality.

Effects to western yellow-billed cuckoos from project activities could include noise disturbances during the breeding season, and disturbance from harvesting of revegetation material. Noise from heavy equipment has the potential to cause nesting birds to abandon nests, and harvesting revegetation material could reduce habitat quality during the breeding season. Limiting this type of work to the fall and winter months would reduce the potential adverse effects.

Projects may affect yellow-billed cuckoo, but it is not likely to adversely affect yellow-billed cuckoo. The following measures will be applied based on the low likelihood of disturbance to yellow-billed cuckoo.

1. Program activities that occur in known suitable breeding habitat (contiguous riparian habitat covering 50 acres or more) will not be conducted from June 1 to August 31.

2. If protocol surveys determine that no nesting western yellow-billed cuckoos occur within 0.25 mile of a specific project site, project activities at that site may commence prior to August 31.

3. Project activities will not remove or degrade suitable habitat for western yellow-billed cuckoo.

Northern Spotted Owl (Strix occidentalis caurina)

Nine (9) of the 14 proposed projects under FRGP occur within the range of Northern Spotted Owl. Activities proposed for the sites (1732224 – Chamberlain Creek Fish Passage Implementation Project, 1732280 – Soda Creek Fish Passage and Habitat Enhancement Project, 1732234 – North Fork Elk River Channel Instream Habitat Restoration Project, 1732281 – South Fork Usal Creek Log Jam-boree, 1732307 – Albion River Instream Coho Habitat Enhancement Project, 1732398 – Sebbas Creek Off-Channel Project, 1732400 – Huckleberry Creek Coho Refugia Project,1732364 – Eel River Arundo Eradication Phase 4, 1732290 – North Fork Elk River Upslope Watershed Restoration Project) (Appendix A) will not remove, degrade, or downgrade suitable Northern Spotted owl habitat or result in direct injury or mortality. The potential exists for noise from heavy equipment work at these sites to disrupt Northern Spotted Owl nesting. To avoid this potential effect, the following mitigation measures will be implemented:

1. Work with heavy equipment at any site within 0.25 miles of suitable habitat for the Northern Spotted Owl shall not occur from November 1 to July 31 for projects in areas under the jurisdiction of the Sacramento USFWS Office and from November 1 to July 9 for projects in areas under the jurisdiction of the Arcata USFWS Office.

2. The work window at individual work sites may be advanced prior to July 9 or July 31 (corresponding to the different time constraints of the Sacramento and Arcata USFWS office), if protocol surveys determine that suitable habitat is unoccupied.

3. If these mitigation measures cannot be implemented or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential impacts to northern spotted owls or their habitat, then activity at that work site shall be discontinued and CDFW must reinitiate consultation with USFWS.

4. For projects contained within streams and watersheds included in a USFWS Habitat Conservation Plan the mitigation measures contained within those Habitat Conservation Plans shall be followed.

Point Arena Mountain Beaver (Aplodontia rufa nigra)

Of the 14 projects proposed in the 2024 FRGP MND project, one (1) is within the range of the Point Arena Mountain Beaver. Activities proposed for the site (1732280 - Soda Creek Fish Passage and Habitat Enhancement Project) (Appendix A) will not remove, degrade, or downgrade suitable Point Arena Mountain Beaver habitat or result in direct injury or mortality. To avoid this potential effect, the following mitigation measures will be implemented:

1. Within 500 feet of occupied habitat during the breeding season from December 15 through June 15 the following restrictions are in place:

    a. Action and related activities shall be greater than 100 feet from occupied habitat

    b. Noise-generating activities shall be limited to the use of hand tools and light power-tools (e.g., chainsaw, axe, etc.).

    c. No tools shall be used that require an air compressor.

    d. No power tools shall be operated while in direct contact with the ground.

San Francisco Garter Snake (Thamnophis sirtalis tetrataenia)

Of the 14 projects proposed in the 2024 FRGP MND project, none are within the range of the San Francisco Garter Snake. Precautions shall be required at these sites to avoid the potential for take of garter snakes while using heavy equipment. The potential for impacts to San Francisco garter snakes will be mitigated by complying with all of the mandatory terms and conditions associated with incidental take authorized by the Service, Biological Opinions. CDFW shall implement the following measures to minimize adverse effects to the San Francisco garter snake and its habitat:

1. A USFWS approved biologist will conduct preconstruction surveys and monitor for San Francisco garter snakes prior to implementation of project activities. If San Francisco garter snakes are identified at a project site, work will be halted. If the identified animal(s) do not leave the project area of their own volition, the USFWS and CDFW will be contacted to determine appropriate actions. Only Service-approved biologists will participate in activities associated with the capture, handling, or relocation of San Francisco garter snakes.

2. Exclusion fencing shall be established around staging areas and soil stockpile areas. Exclusion fencing shall include escape funnels and the lower edge of the fence shall be buried at least for (4) inches to prevent burrowing animals from tunneling under the fence. Exclusion fence posts will be placed on the inside to prevent snakes from being able to climb into the project site.

3. The USFWS approved biologist will conduct daily inspections of the project work area, staging area, and the perimeter of any exclusion fencing prior to the commencement of construction activities. Upon completion equipment or materials may be moved onto the work site and project activities may commence with a USFWS approved monitor.

4. The exclusion fencing will remain in operating conditions for the duration of the project. The biological monitor shall daily inspect the integrity of the exclusion fencing to ensure there are no gaps, tears, or damage. Maintenance of the fencing shall be conducted as needed. Any necessary repairs to the fencing shall be completed within 24 hours of the initial observance of the damage.

5. A USFWS approved biological monitor will be on-site while project activities are being conducted. The monitor will walk in from of equipment to ensure San Francisco garter snakes are not crushed.

6. Vegetation removed shall be kept within the exclusion fencing or placed into a disposal vehicle and removed from the project site. Vegetation will not be piled on the ground outside fencing unless it is later transferred, piece by piece, under the direct supervision of the USFWS-approved biologist.

7. Soil will not be stockpiled unless it is on a paved surface or an area where burrows are absent. The USFWS- approved biologist will approve such locations within the defined work area.

8. If San Francisco garter snakes are found on site, the construction contractor shall stop work and contact the Service immediately and allow the San Francisco garter snakes to leave on its own volition.

9. Prior to work, all burrows will be flagged and avoided to prevent their collapse.

10. All workers will check stockpiled construction materials, and under equipment to be moved for presence of wildlife sheltering within them prior to use.

11. Any vehicle parked on site for more than 15 minutes will be inspected before it is moved to ensure that San Francisco garter snakes have not moved under the vehicle.

12. The USFWS-approved biological monitor shall have the responsibility and authority of stopping the project if any crews or personnel are not complying with the above measures.

Southwestern Willow Flycatcher (Empidonax traillii extimus)

Of the 14 projects proposed in the 2024 FRGP MND project, two (2) are within the range of the Southwestern Willow Flycatcher. Activities proposed for the sites (1732319 – Ventura River Arundo Removal & Riparian Restoration - South Santa Ana Site (HR), 1732240 – Maria Ygnacio Creek Fish Passage Implementation Project--UPRR Crossing) (Appendix A) will not remove, degrade, or downgrade suitable Southwestern Willow Flycatcher habitat or result in direct injury or mortality; however, the potential exists for the noise from heavy equipment work or harvesting of re-vegetation material at these sites to disrupt Southwestern Willow Flycatcher nesting if present. To avoid this potential impact, the following mitigation measures shall be implemented:

1. Heavy equipment work shall not begin within one quarter mile of any site with known or potential habitat for the Southwestern Willow Flycatcher until after September 15.

2. Prior to any work in areas where riparian habitat is present, a qualified biologist shall do a habitat assessment and determine whether the area within 500-feet of the project site is suitable for nesting by Southwestern Willow Flycatchers. If not, work may proceed without further surveys. If the biologist determines that the area is suitable, a qualified biologist must monitor before and during the project to determine the status of the Southwestern Willow Flycatchers within 500-feet of the project site.

3. The work window at individual work sites may be modified, if protocol surveys determine that nesting birds do not occur within 0.25-miles of the site during the breeding season.

4. Harvest of willow branches at any site with potential habitat for the Southwestern Willow Flycatcher shall not occur between May 1 and September 15.

5. No more than 1/3 of any willow plant shall be harvested annually. Care shall be taken during harvest not to trample or over harvest the willow sources.

6. If any Southwestern Willow Flycatchers are observed nesting within 500-feet of the project activities, work shall cease temporarily until it is determined that either the birds are not nesting, or young have fledged.

7. CDFW shall ensure that the grantee or responsible party is aware of this site-specific condition, and shall inspect the work site pre-, during, and post-completion of the action item.

If these mitigation measures cannot be implemented or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential impacts to Southwestern Willow Flycatcher or their habitat, then activity at that work shall be discontinued.

Little Willow Flycatcher (Empidonax traillii brewsteri)

Of the 14 projects proposed in the 2024 FRGP MND project, one (1) is within the range of the Little Willow Flycatcher. Activities proposed for the site (1732343 – Middle Stotenburg Creek Coho Habitat Enhancement Project, Riparian Restoration) (Appendix A) will not remove, degrade, or downgrade suitable Little Willow Flycatcher habitat or result in direct injury or mortality. The potential exists for the noise from heavy equipment work or harvesting of re-vegetation material at these sites to disrupt Little Willow Flycatcher nesting if present. To avoid this potential impact, the following mitigation measures shall be implemented:

1. Heavy equipment work shall not begin within one quarter mile of any site with known or potential habitat for the Little Willow Flycatcher until after September 15.

2. Prior to any work in areas where riparian habitat is present, a qualified biologist shall do a habitat assessment and determine whether the area within 500-feet of the project site is suitable for nesting by Little Willow Flycatchers. If not, work may proceed without further surveys. If the biologist determines that the area is suitable, a qualified biologist must monitor before and during the project to determine the status of the Little Willow Flycatchers within 500-feet of the project site.

3. The work window at individual work sites may be modified, if protocol surveys determine that nesting birds do not occur within 0.25-miles of the site during the breeding season.

4. Harvest of willow branches at any site with potential habitat for the Little Willow Flycatcher shall not occur between May 1 and September 15.

5. No more than 1/3 of any willow plant shall be harvested annually. Care shall be taken during harvest not to trample or over harvest the willow sources.

6. If any Little Willow Flycatchers are observed nesting within 500-feet of the project activities, work shall cease temporarily until it is determined that either the birds are not nesting, or young have fledged.

7. CDFW shall ensure that the grantee or responsible party is aware of this site-specific condition, and shall inspect the work site pre-, during, and post-completion of the action item.

If these mitigation measures cannot be implemented or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential impacts to Little Willow Flycatcher or their habitat, then activity at that work shall be discontinued.

Chinook Salmon (Oncorhynchus tshawytscha), Coho Salmon (Oncorhynchus kisutch), Steelhead Trout (Oncorhynchus mykiss), and Coast Cutthroat Trout (Oncorhynchus clarkii clarkii)

While all of the work proposed under this program will enhance habitat for one or more of these species, all of the projects proposed as part of the 2024 FRGP MND project could involve instream work in their habitat (Appendix A). In order to avoid any potential for negative impacts to these species, the following measures will be implemented:

1. Project work within the wetted stream shall be limited to the period between June 15 and November 1, or the first significant rainfall, or whichever comes first. This is to take advantage of low stream flows and to avoid the spawning and egg/alevin incubation period of salmon and steelhead. Actual project start and end dates, within this timeframe, are at the discretion of the Department of Fish and Wildlife

(i.e., on the Shasta River projects must be completed between July 1 and September 15 to avoid impacts to immigrating and emigrating salmonids). Whenever possible, the work period at individual sites shall be further limited to entirely avoid periods when salmonids are present (for example, in a seasonal creek, work will be confined to the period when the stream is dry).

2. Suitable large woody debris removed from fish passage barriers that is not used for habitat enhancement, shall be left within the riparian zone to provide a source for future recruitment of wood into the stream, reduce surface erosion, contribute to amounts of organic debris in the soil, encourage fungi, provide immediate cover for small terrestrial species and to speed recovery of native vegetation.

3. A maximum of 1,000 contiguous feet of that stream reach may be dewatered at any given time. Other sections of stream within the same project area may be dewatered in up to 1,000 contiguous foot increments, as long as listed fish that were handled during the initial dewatering event are not handled during subsequent dewatering events during the same year. To avoid handling the same fish multiple times during sequenced dewatering events, fish must be relocated to suitable habitat conditions outside of the zone that could be dewatered during that season. In addition, for each dewatering and relocation event,
sufficient field staff must be available to efficiently move and care for relocated fish. The fish relocation plan submitted prior to the event must describe this sufficiency.

4. Staging/storage areas for equipment, materials, fuels, lubricants, and solvents, will be located outside of the stream's high-water channel and associated riparian area where it cannot enter the stream channel. Stationary equipment such as motors, pumps, generators, compressors, and welders located within the dry portion of the stream channel or adjacent to the stream, will be positioned over drip-pans. Vehicles will be moved out of the normal high-water area of the stream prior to refueling and lubricating. Prior to the onset of work, CDFW shall ensure that the grantee has prepared a plan to allow a prompt
and effective response to any accidental spills.

5. The number of access routes and footpaths, number and size of staging areas, and the total area of the work site activity shall be limited to the minimum necessary. All access routes, footpaths, and staging areas created during the project shall be replanted with native vegetation.

6. Any construction debris shall be prevented from falling into the stream channel. Any material that does fall into a stream during construction shall be immediately removed in a manner that has minimal impact to the streambed and water quality.

7. Prior to dewatering a construction site, fish and amphibian species shall be captured and relocated by CDFW personnel (or designated agents). The following measures shall be taken to minimize harm and mortality to listed salmonids resulting from fish relocation and dewatering activities:

8. Fish relocation and dewatering activities shall only occur between June 15 and November 1 of each year and shall be performed by a qualified fisheries biologist.

9. Fish relocation shall be performed by a qualified fisheries biologist, with all necessary State and Federal permits. Captured fish shall be moved to the nearest appropriate site outside of the work area. A record shall be maintained of all fish rescued and moved. The record shall include the date of capture and relocation, the method of capture, the location of the relocation site in relation to the project site,

and the number and species of fish captured and relocated. The record shall be provided to CDFW within two weeks of the completion of the work season or project, whichever comes first.

10. Electrofishing shall be conducted by properly trained personnel following NOAA *Guidelines for Electrofishing Waters Containing Salmonids Listed under the Endangered Species Act*, June 2000.

11. Prior to capturing fish, the most appropriate release location(s) shall be determined. The following shall be determined:

    i. Temperature: Water temperature shall be similar as the capture location.

    ii. Habitat: There shall be ample habitat for the captured fish.

    iii. Exclusions from work site: There shall be a low likelihood for the fish to reenter the work site or become impinged on exclusion net or screen.

12. The most efficient method for capturing fish shall be determined by the biologist. Complex stream habitat generally requires the use of electrofishing equipment, whereas in outlet pools, fish may be concentrated by pumping-down the pool and then seining or dip netting fish.

13. Handling of salmonids shall be minimized. However, when handling is necessary, always wet hands or nets prior to touching fish.

14. Temporarily hold fish in cool, shaded, aerated water in a container with a lid. Provide aeration with a battery-powered external bubbler. Protect fish from jostling and noise and do not remove fish from this container until time of release.

15. Air and water temperatures shall be measured periodically. A thermometer shall be placed in holding containers and, if necessary, periodically conduct partial water changes to maintain a stable water temperature. If water temperature reaches or exceeds 18°C, fish shall be released, and rescue operations ceased.

16. Overcrowding in containers shall be avoided by having at least two containers and segregating young-of-year (YOY) fish from larger age-classes to avoid predation. Larger amphibians, such as Pacific giant salamanders, shall be placed in the container with larger fish. If fish are abundant, the capturing of fish and amphibians shall cease periodically and shall be released at the predetermined locations.

17. Species and year-class of fish shall be visually estimated at time of release. The number of fish captured shall be counted and recorded. Anesthetization or measuring fish shall be avoided.

18. If feasible, initial fish relocation efforts shall be performed several days prior to the start of construction. This provides the fisheries biologist an opportunity to return to the work area and perform additional electrofishing passes immediately prior to construction. In many instances, additional fish will be captured that eluded the previous day's efforts.

19. If mortality during relocation exceeds three percent, capturing efforts shall be stopped and the appropriate agencies shall be contacted immediately.

20. In regions of California with high summer temperatures, relocation activities shall be performed in the morning when the temperatures are cooler.

21. CDFW shall minimize the amount of wetted stream channel that is dewatered at each individual project site to the fullest extent possible.

22. Additional measures to minimize injury and mortality of salmonids during fish relocation and dewatering activities shall be implemented as described in Volume II, Part IX, pages 52 and 53 of the *California Salmonid Stream Habitat Restoration Manual*.

23. If these mitigation measures cannot be implemented, or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential impacts to anadromous salmonids or their habitat, then activity at that work site shall be discontinued.

Crotch's Bumble Bee (Bombus crotchii), Franklin's Bumble Bee (Bombus franklini), Suckley's Cuckoo Bumble Bee (Bombus suckleyi), and Western Bumble Bee (Bombus occidentalis)

Twelve (12) of the 14 work sites proposed as part of the 2024 FRGP MND project are listed on the corresponding species lists as in potentially suitable habitat for one or more of these species. The project site activities (1732224 – Chamberlain Creek Fish Passage Implementation Project, 1732240 – Maria Ygnacio Creek Fish Passage Implementation Project—UPRR Crossing, 1732246 - Windler Floodplain Habitat Enhancement, 1732261 - Robinson Creek Instream Habitat Enhancement, 1732280 - Soda Creek Fish Passage and Habitat Enhancement Project, 1732281 - South Fork Usal Creek Log Jam-boree, 1732307 - Albion River Instream Coho Habitat Enhancement Project, 1732319 - Ventura River Arundo Removal & Riparian Restoration - South Santa Ana Site (HR), 1732343 - Middle Stotenburg Creek Coho Habitat Enhancement Project, Riparian Restoration, 1732364 - Eel River Arundo Eradication Phase 4, 1732398 - Sebbas Creek Off-Channel Project, 1732400 - Huckleberry Creek Coho Refugia Project) (Appendix A) will not significantly degrade existing bumble bee habitat; however, the potential exists for project work to disrupt bumble bee nesting and foraging if present. To avoid this potential effect, the following mitigation measures will be implemented:

1. Prior to the initiation of ground disturbing activities, a qualified biologist shall do a habitat assessment evaluating the likelihood of bumble bees occurring within and adjacent to the project area, and results should be submitted to CDFW. Multiple on-site surveys should be developed to detect foraging bumble bees and potential nesting sites (nesting surveys) each year that project activities will occur and results should be submitted to CDFW. The survey shall follow guidelines outlined in CDFW's June 2024 Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=213150&inline). In lieu of conducting surveys (e.g., if conducting a valid survey is not feasible), the potential presence of protected bumble bees in the project area would be assumed.

2. If no protected bumble bees are found during the multiple rounds of focused surveys, but the habitat assessment identified suitable nesting, foraging, or overwintering habitat within the project site, a qualified biologist should be onsite during vegetation or ground disturbing activities that take place during any of the Queen and Gyne Flight Period and Colony Active Period. If protected bumble bees are observed, site-specific measures to avoid take shall be determined by the biologist, or CDFW shall be consulted with to obtain an Incidental Take Permit (ITP) if take of protected bumble bees may occur during project activities. Even if surveys from a particular project site failed to detect bumble bees one year, a full round of surveys shall be performed each year that project activities will occur or assume presence.

3. The removal of any native or non-native flowering vegetation should occur prior to bloom and before the active period for Bumble bee colonies (April through August). If project activities cannot be avoided during the active period or prior to the blooming period, and vegetation is removed, flowering vegetation shall be removed in a patched manner, leaving areas of floral resources as refugia, or shall wait until bloom has ceased.

4. The disturbance or removal of vegetation shall be kept to the minimum necessary to complete project activities. Vegetation marked for protection may only be trimmed with hand tools to the extent necessary to gain access to the project area. If mowing is planned, mower blade heights shall be set no lower than four inches, unless otherwise approved by CDFW in writing.

5. The application of herbicides will be limited during the bumble bee flight and nesting season (March through September) as feasible. When herbicide applications cannot be avoided during project activities, treatments will be conducted in a patchy pattern to retain floral resources and provide refuge for bumble bees, where feasible.

6. If active bumble bee nests are observed in the surveyed area or during project activities, work will be halted and the qualified biologist shall be contacted for approval to delineate a 50-foot no-activity buffer around the nest until the nest senesces, as determined by the qualified biologist. Delineation methods may include posted signs, posting stakes, flags, and/or rope or cord, and fencing as necessary to minimize the disturbance of the nest. The nest location shall be recorded with a GPS (including datum and horizontal accuracy in feet) and the qualified biologist shall report the nest location to the CDFW within 24 hours of finding the nest.

7. CDFW shall ensure that the grantee or responsible party is aware of this site-specific condition, and shall inspect the work site pre-, during, and post-completion of the action item.

If these mitigation measures cannot be implemented or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential impacts to Bumble Bees or their habitat, then activity at that work shall be discontinued.

Tidewater Goby (Eucyclogobius newberryi)

Two (2) of the 14 work sites proposed as part of the 2024 FRGP MND project are listed on the corresponding species lists as in potentially suitable habitat for tidewater goby. Activities proposed for the project sites (1732319 – Ventura River Arundo Removal & Riparian Restoration - South Santa Ana Site (HR), 1732240 – Maria Ygnacio Creek Fish Passage Implementation Project--UPRR Crossing) (Appendix A) will not remove, degrade, or downgrade suitable tidewater goby habitat. Work under FRGP will enhance habitat for tidewater goby. To avoid any potential for negative impacts to this species, the following measures will be implemented:

1. Construction activities at stream crossings will only occur between June 15 and October 31 to avoid or minimize adversely affecting tidewater goby and to minimize soil compaction and sediment transport.

2. Equipment will not be operated directly within tidal waters or stream channels of flowing streams.

3. Work will be done during low tide when no water or fish are present, to temporarily prevent tidewater goby from gaining access to the vicinity of the work area. If water is present, the work area will be seined, and a fish barrier installed to isolate the work area. At this time, gobies are susceptible to being injured or crushed by workers while they are entangled in or being removed from netting. In order to minimize potentially adverse effects to gobies, all translocation/removal of tidewater gobies will be conducted by qualified biologists under a scientific recovery permit pursuant to section 10(a)(1)(A) of the Act.

4. The temporary fish barrier will be removed after work is completed.

5. Silt fences will be deployed at culvert removal areas to prevent any sediment from flowing into the creek or wetted channels. If the silt fences are not adequately containing sediment, construction activity will cease until remedial measures are implemented that prevents sediment from entering the waters below.

6. All exposed surfaces will be slash-packed with native vegetation and planted with willow sprigging when the work has been completed.

7. Construction materials, debris, or waste will not be placed or stored where it may be allowed to enter into or be placed where it may be washed by rainfall into waters of the U.S./State.

8. Turbid water will be contained and prevented from being transported in amounts that are deleterious to fish, or in amounts that could violate state pollution laws. Silt fences or water diversion structures will be used to contain sediment. If sediment is not being contained adequately, as determined by visual observation, the activity will cease.

9. Designated areas will be used for equipment refueling. If equipment must be washed, washing will occur where wash water cannot flow into wetlands or waters of the U.S./State.

10. Best Management Practices (BMPs) will be implemented to prevent entry of storm water runoff into the project site, the entrainment of excavated contaminated materials leaving the site, and to prevent the entry of polluted storm water runoff into coastal waters during the transportation and storage of excavated materials.

Pacific Lamprey (Entosphenus tridentatus)

Nine (9) of the 14 work sites proposed as part of the 2024 FRGP MND project (1732224 - Chamberlain Creek Fish Passage Implementation Project, 1732246 – Windler Floodplain Habitat Enhancement, 1732281 – South Fork Usal Creek Log Jam-boree, 1732307 – Albion River Instream Coho Habitat Enhancement Project, 1732398 – Sebbas Creek Off-Channel Project, 1732400 - Huckleberry Creek Coho Refugia Project, 1732364 – Eel River Arundo Eradication Phase 4, 1732343 – Middle Stotenburg Creek Coho Habitat Enhancement Project, Riparian Restoration, 1732290 – North Fork Elk River Upslope Watershed Restoration Project) (Appendix A) are located in potential suitable habitat for the Pacific lamprey. While most the activities proposed will require instream in their habitat the following documents by the Pacific Lamprey Conservation Initiative and their minimization measures shall be implemented and followed by project proponents in order to avoid any potential for negative impacts to the species:

1. Best Management Guidelines for Native Lampreys During In-water Work Living document, Original Version 1.0 (May 2020)

2. Practical guidelines for Incorporating Adult Pacific Lamprey at Fishways (June 2017)

3. Best Management Practices to Minimize Adverse Effects to Pacific Lamprey (April 2010)

Riparian and re-vegetation

1. Planting of seedlings shall begin after December 1, or when sufficient rainfall has occurred to ensure the best chance of survival of the seedlings, but in no case after April 1.

2. Any disturbed banks shall be fully restored upon completion of construction. Revegetation shall be done using native species. Planting techniques can include seed casting, hydroseeding, or live planting methods using the techniques in Volume II, Part XI of the *California Salmonid Stream Habitat Restoration Manual*.

3. Disturbed and compacted areas shall be re-vegetated with native plant species. The species shall be comprised of a diverse community structure that mimics the native riparian corridor. Planting ratio shall be 2:1 (two plants to every one removed).

4. Unless otherwise specified, the standard for success is 80 percent survival of plantings or 80 percent ground cover for broadcast planting of seed after a period of three years.

5. To ensure that the spread or introduction of invasive exotic plants shall be avoided to the maximum extent possible, equipment shall be cleaned of all dirt, mud, and plant material prior to entering a work site. When possible, invasive exotic plants at the work site shall be removed. Areas disturbed by project activities will be restored and planted with native plants.

6. Mulching and seeding shall be done on all exposed soil which may deliver sediment to a stream. Soils exposed by project operations shall be mulched to prevent sediment runoff and transport. Mulches shall be applied so that not less than 90% of the disturbed areas are covered. All mulches, except hydro-mulch, shall be applied in a layer not less than two (2) inches deep. Where feasible, all mulches shall be kneaded or tracked-in with track marks parallel to the contour, and tackified as necessary to prevent excessive movement. All exposed soils and fills, including the downstream face of the road prism adjacent to the outlet of culverts, shall be reseeded with a mix of native grasses common to the area, free from seeds of noxious or invasive weed species, and applied at a rate which will ensure establishment.

7. If erosion control mats are used in re-vegetation, they shall be made of material that decomposes. Erosion control mats made of nylon plastic, or other non-decomposing material shall not be used.

8. CDFW shall retain as many trees and brush as feasible, emphasizing shade producing and bank stabilizing trees and brush to minimize impacts to the riparian corridor.

9. If riparian vegetation is to be removed with chainsaws, the grantee shall use saws that operate with vegetable-based bar oil when possible.

10. Disturbed and decompacted areas shall be re-vegetated with native species specific to the project location that comprise a diverse community of woody and herbaceous species.

V.CULTURAL RESOURCES

Ground-disturbance will be required to implement the project at certain locations that, despite efforts to identify cultural resources, have the potential to affect these resources. The procedure for a programmatic evaluation of archeological resources is provided in Appendix E. Potential for inadvertent impacts will be avoided through implementation of the following mitigation measures:

1. The Grantee shall contract with an archaeologist(s) or other historic preservation professional that meets The Secretary of the Interior's Professional Qualifications Standards (36 CFR Part 61, and 48 FR 44716) to complete cultural resource surveys at any sites with the potential to be impacted prior to any ground disturbing activities. This work may be augmented with the aid of a Native American cultural resources specialist that is culturally affiliated with the project area. Cultural and paleontological resource surveys shall be conducted using standard protocols to meet CEQA Guideline requirements. Paleontological survey protocols are listed in Appendix D.

2. If cultural and/or paleontological resource sites are identified at a project location, CDFW will require one or more of the following protective measures to be implemented before work can proceed: a) fencing to prevent accidental disturbance of cultural resources during construction, b) on-site monitoring by cultural and/or paleontological resource professionals during construction to assure that cultural resources are not disturbed, c) redesign of proposed work to avoid disturbance of cultural resources.

3. The Grantee shall report any previously unknown historic, archeological, and paleontological remains discovered at a project location to CDFW for reporting to the USACE as required in the FRGP Regional General Permits.

4. CDFW shall ensure that the grantee or responsible party is aware of these site-specific conditions, and shall inspect the work site before, during, and after completion of the action item.

5. Inadvertent Discovery of Cultural Resources - If cultural resources, such as lithic debitage, ground stone, historic debris, building foundations, or bone, are discovered during ground-disturbance activities, work shall be stopped within 20 meters (66 feet) of the discovery, per the requirements of CEQA (January 1999 Revised Guidelines, Title 14 CCR § 15064.5 (f)). Work near the archaeological finds shall not resume until an archaeologist that meets the Secretary of the Interior's Standards and Guidelines suited to the discovery, has evaluated the materials, and offered recommendations for further action. Cultural materials not associated with human interments shall be documented and curated in place.

6. Inadvertent Discovery of Human Remains - If human remains are discovered during project construction, work shall stop at the discovery location, within 20 meters (66 feet), and any nearby area reasonably suspected to overlie adjacent to human remains (Public Resources Code, § 7050.5). The county coroner shall be contacted to determine if the cause of death must be investigated. If the coroner determines that the remains are of Native American origin, it is necessary to comply with state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American heritage Commission (NAHC) (Public Resources Code, § 5097). The coroner will contact the NAHC. The descendants or most likely descendants of the deceased will be contacted, and work shall not resume until they have made a recommendation to the landowner or the person responsible for the excavation work for means of treatment and disposition, with appropriate dignity, of the human remains and any associated grave goods, as provided in Public Resources Code, § 5097.98.

7. Procedures for treatment of an inadvertent discovery of human remains:

    a. Immediately following discovery of known or potential human remains all ground-disturbing activities at the point of discovery shall be halted.

    b. No material remains shall be removed from the discovery site, and a reasonable exclusion zone shall be cordoned off.

    c. The CDFW Grant Manager and property owner shall be notified and the CDFW Grant Manager shall contact the county coroner.

    d. The Grantee shall retain the services of a professional archaeologist to immediately examine the finds and assist the process.

    e. All ground-disturbing construction activities in the discovery site exclusion area shall be suspended.

    f. The discovery site shall be secured to protect the remains from desecration or disturbance, with 24-hour surveillance, if prudent.

    g. Discovery of Native American remains is a very sensitive issue, and all project personnel shall hold any information about such a discovery in confidence and divulge it only on a need-to-know basis, as determined by the CDFW.

    h. The coroner has two working days to examine the remains after being notified. If the remains are Native American, the coroner has 24 hours to notify the NAHC in Sacramento (telephone 916-373-3710).

    i. The NAHC is responsible for identifying and immediately notifying the Most Likely Descendant (MLD) of the deceased Native American.

    j. The MLD may, with the permission of the landowner, or their representative, inspect the site of the discovered Native American remains and may recommend to the landowner and CDFW Grant Manager means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The descendants shall complete their inspection and make recommendations or preferences for treatment with 48 hours of being granted access to the site (Public Resource Code, § 5097.98(a)). The recommendation may include the scientific removal and non-destructive or destructive analysis of human remains and items associated with Native American burials.

    k. Whenever the NAHC is unable to identify a MLD, or the MLD identified fails to make a recommendation, or the landowner or his/her authorized representative rejects the recommendation of the MLD and mediation between the parties by the NAHC fails to provide measures acceptable to the landowner, the landowner or his/her authorized representatives shall re-inter the human remains and associated grave offerings with appropriate dignity on the property in a location not subject to further subsurface disturbance in accordance with Public Resource Code, § 5097.98(e).

    l. Following final treatment measures, the CDFW shall ensure that a report is prepared that describes the circumstances, nature and location of the discovery, its treatment, including

results of analysis (if permitted), and final disposition, including a confidential map showing the reburial location. Appended to the report shall be a formal record about the discovery site prepared to current California standards on DPR 523 form(s). CDFW shall ensure that report copies are distributed to the appropriate California Historic Information Center, NAHC, and MLD.

m. Pursuant to RGP78 and in accordance with 36 C.F.R. § 800.13, in the event of any discovery during construction of human remains, archeological deposits, or any other type of historic property, the CDFW shall notify the USACE archeological staff (Steve Dibble at 213-452-3849 or John Killeen at 213-452-3861) within 24 hours. Construction work shall be suspended immediately and shall not resume until USACE re-authorizes project construction.

n. If it becomes impossible to implement the project at a work site without disturbing cultural or paleontological resources, then activity at that work site shall be discontinued.

VI. ENERGY

No specific mitigation measures are required to protect energy.

VII. GEOLOGY AND SOILS

There is no potential for a significant adverse impact to geology and soils; implementation of the restoration project will contribute to an overall reduction in erosion and sedimentation. Existing roads will be used to access work sites. Ground disturbance at most work sites will be minimal, except for road improvements or decommissioning. Road improvements and decommissioning will involve moving large quantities of soil from road fills and stream crossings to restore historic land surface profiles and prevent chronic erosion and sediment delivery to streams. In order to avoid temporary increases in surface erosion, the following mitigation measures will be implemented:

1. CDFW will implement the following measures to minimize harm to listed salmonids resulting from culvert replacement activities and other instream construction work:

    a. All stream crossing replacement or modification designs, involving fish passage, shall be reviewed, and approved by NOAA (and/or CDFW) engineers prior to onset of work.

    b. If the stream in the project location was not passable to, or was not utilized by all life stages of, all covered salmonids prior to the existence of the road crossing, the project shall pass the life stages and covered salmonid species that historically did pass there. Retrofit culverts shall meet the fish passage criteria for the passage needs of the listed species and life stages historically passing through the site prior to the existence of the road crossing.

2. CDFW shall implement the following measures to minimize harm to listed salmonids resulting from road decommissioning activities:

    a. Woody debris will be concentrated on finished slopes of decommissioned roads adjacent to stream crossings to reduce surface erosion; contribute to amounts of organic debris in the soil; encourage fungi; provide immediate cover for small terrestrial species; and to speed recovery of native forest vegetation.

b. Work sites shall be winterized at the end of each day to minimize the eroding of unfinished excavations when significant rains are forecasted. Winterization procedures shall be supervised by a professional trained in erosion control techniques and involve taking necessary measures to minimize erosion on unfinished work surfaces. Winterization includes the following: grading unfinished surfaces to allow water to freely drain across them without causing water concentration or ponding; compacting unfinished surfaces where concentrated runoff may flow with an excavator bucket or similar tool, to minimize surface erosion and the formation of rills; and installation of culverts, silt fences, and other erosion control devices where necessary to convey concentrated water across unfinished surfaces, and trap exposed sediment before it leaves the work site.

3. Effective erosion control measures shall be in-place at all times during construction. Construction within the 5-year floodplain shall not begin until all temporary erosion controls (i.e., straw bales or silt fences that are effectively keyed-in) are in place down slope or down stream of project activities within the riparian area. Erosion control measures shall be maintained throughout the construction period. If continued erosion is likely to occur after construction is completed, then appropriate erosion prevention measures shall be implemented and maintained until erosion has subsided.

4. An adequate supply of erosion control materials (gravel, straw bales, shovels, etc.) shall be maintained onsite to facilitate a quick response to unanticipated storm events or emergencies.

5. Use erosion controls that protect and stabilize stockpiles and exposed soils to prevent movement of materials. Use devices such as plastic sheeting held down with rocks or sandbags over stockpiles, silt fences, or berms of hay bales, to minimize movement of exposed or stockpiled soils.

6. When needed, instream grade control structures shall be utilized to control channel scour, sediment routing, and headwall cutting.

7. Temporary stockpiling of excavated material shall be minimized. However, excavated material shall be stockpiled in areas where it cannot enter the stream channel. Available sites at or near the project location shall be determined prior to the start of construction. If feasible, topsoil shall be conserved for reuse at project location or use in other areas.

8. Upon project completion, all exposed soil present in and around the project site shall be stabilized within seven days. Soils exposed by project operations shall be mulched to prevent sediment runoff and transport. Mulches shall be applied so that not less than 90% of the disturbed areas are covered. All mulches, except hydro-mulch, shall be applied in a layer not less than two (2) inches deep. Where feasible, all mulches shall be kneaded or tracked-in with track marks parallel to the contour, and tackified as necessary to prevent excessive movement. All exposed soils and fills, including the downstream face of the road prism adjacent to the outlet of culverts, shall be reseeded with a mix of native grasses common to the area, free from seeds of noxious or invasive weed species, and applied at a rate which will ensure establishment.

9. Soil compaction shall be minimized by using equipment with a greater reach or that exerts less pressure per square inch on the ground, resulting in less overall area disturbed and less compaction of disturbed areas.

10. Disturbed soils shall be decompacted at project completion as heavy equipment exits the construction area.

11. At the completion of the project, soil compaction that is not an integral element of the design of a crossing should be de-compacted.

VIII. GREENHOUSE GAS EMISSIONS

No specific mitigation measures are required. Re-vegetation practices will help offset the short term, less than significant, greenhouse gas emissions.

IX. HAZARDS AND HAZARDOUS MATERIALS

The project will not create a significant hazard to the public or the environment. At work sites requiring the use of heavy equipment, there is a small risk of an accident upsetting the machine and releasing fuel, oil, and coolant, or of an accidental spark from equipment igniting a fire. The potential for these impacts will be reduced to a less than significant level through implementation of the following mitigation measures:

1. Heavy equipment that will be used in these activities will be in good condition and will be inspected for leakage of coolant and petroleum products and repaired, if necessary, before work is started.

2. When operating vehicles in wetted portions of the stream channel, or where wetland vegetation, riparian vegetation, or aquatic organisms may be destroyed, the responsible party shall, at a minimum, do the following:

    a. Check and maintain on a daily basis any vehicles to prevent leaks of materials that, if introduced to water, could be deleterious to aquatic life, wildlife, or riparian habitat.

    b. Take precautions to minimize the number of passes through the stream and to avoid increasing the turbidity of the water to a level that is deleterious to aquatic life; and

    c. Allow the work area to “rest” to allow the water to clear after each individual pass of the vehicle that causes a plume of turbidity above background levels, resuming work only after the stream has reached the original background turbidity levels.

3. All equipment operators shall be trained in the procedures to be taken should an accident occur. Prior to the onset of work, CDFW shall ensure that the grantee has prepared a Spill Prevention/Response plan to help avoid spills and allow a prompt and effective response should an accidental spill occur. All workers shall be informed of the importance of preventing spills. Operators shall have spill clean-up supplies on site and be knowledgeable in their proper deployment.

4. All activities performed in or near a stream will have absorbent materials designed for spill containment and cleanup at the activity site for use in case of an accidental spill. In an event of a spill, work shall cease immediately. Clean-up of all spills shall begin immediately. The responsible party shall notify the State Office of Emergency Services at 1-800-852-7550 and the CDFW immediately after any spill occurs and shall consult with the CDFW regarding clean-up procedures.

5. All fueling and maintenance of vehicles and other equipment and staging areas shall occur at least 65 feet (20 meters) from any riparian habitat or water body and place fuel absorbent mats under pump while fueling. The USACE and the CDFW will ensure contamination of habitat does not occur during such operations. Prior to the onset of work, the CDFW will ensure that the grantee has prepared a plan

to allow a prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

6. Location of staging/storage areas for equipment, materials, fuels, lubricants, and solvents, will be located outside of the stream's high-water channel and associated riparian area. The number of access routes, number and size of staging areas, and the total area of the work site activity shall be limited to the minimum necessary to complete the restoration action. To avoid contamination of habitat during restoration activities, trash will be contained, removed, and disposed of throughout the project.

7. Petroleum products, fresh cement, and other deleterious materials shall not enter the stream channel.

8. Stationary equipment such as motors, pumps, generators, compressors, and welders, located within the dry portion of the stream channel or adjacent to the stream, will be positioned over drip-pans.

9. No debris, soil, silt, sand, bark, slash, spoils, sawdust, rubbish, cement, concrete, or washings thereof, asphalt, paint, or other coating material; oil or petroleum products; or other organic or earthen material from any construction or associated activity of whatever nature shall be allowed to enter into or placed where it may be washed by rainfall or runoff into, waters of the state. When operations are completed, any excess materials or debris shall be removed from the work area and disposed of in a lawful manner.

10. All internal combustion engines shall be fitted with spark arrestors.

11. The grantee shall have an appropriate fire extinguisher(s) and firefighting tools (shovel and axe at a minimum) present at all times when there is a risk of fire.

12. Vehicles shall not be parked in tall grass or any other location where heat from the exhaust system could ignite a fire.

13. The grantee shall follow any additional rules the landowner has for fire prevention.

14. The potential for mercury contamination is largely predicted by the presence of historic hydraulic gold mines and mercury (cinnabar) mines (California's Abandoned Mines: A Report on the Magnitude and Scope of the Issue in the State, DOC 2000). Therefore, only a few limited areas within the geographic scope of this grant program have any potential for gravels contaminated with elemental mercury, they are: Middle Klamath River, Salmon River, Scott River, and the Lower Middle and Upper Trinity River. Though studies by the USGS failed to find significant levels of methyl mercury near these mines.

    a. Given the limited geographical potential for encountering mercury contamination (from historic mining) within the geographic scope, and the limited number of projects within these areas that will either disturb the channel bottom or import gravels for instream restoration; the following avoidance and mitigation measure will be adhered to: any gravel imported from offsite shall be from a source known to not contain historic hydraulic gold mine tailings, dredger tailings, or mercury mine waste or tailings.

X. HYDROLOGY AND WATER QUALITY

1. Instream work shall be conducted during the period of lowest flow.

2. Before work is allowed to proceed at a site, CDFW shall inspect the site to assure that turbidity control measures are in place.
3. The wastewater from construction area shall be discharged to an upland location where it will not drain sediment-laden water back to stream channel.
4. For projects within the USACE San Francisco District, if instream work liberates a sediment wedge, 80% of the wedge shall be removed before the sediment is liberated. The required amount can be modified if NOAA or CDFW hydrologists or hydraulic engineers agree that removing a smaller amount will better protect and enhance fish habitat in the area of the project (e.g., leaving some sediment to replenish areas downstream that lack suitable substrate volume or quality).
5. To control erosion during and after project implementation, CDFW shall implement best management practices, as identified by the appropriate Regional Water Quality Control Board.
6. Sediment-laden water caused by construction activity shall be filtered before it leaves the right-of-way or enters the stream network or an aquatic resource area. Silt fences or other detention methods shall be installed as close as possible to culvert outlets to reduce the amount of sediment entering aquatic systems.
7. If CDFW determines that turbidity/siltation levels resulting from an activity or activities constitute a threat to aquatic life, all activities associated with the turbidity/siltation shall cease until effective CDFW approved sediment control devices are installed and/or abatement procedures are implemented.
8. Poured concrete shall be excluded from the wetted channel for a period of two weeks after it is poured. During that time, the poured concrete shall be kept moist, and runoff shall not be allowed to enter flowing stream. Commercial sealants shall be applied to the poured concrete surface where concrete cannot be excluded from the stream flow for two weeks. If sealant is used, water shall be excluded from the site until the sealant is dry.
9. Prior to use, all equipment shall be cleaned to remove external oil, grease, dirt, or mud. Wash sites shall be located in upland locations so that dirty wash water does not flow into the stream channel or adjacent wetlands.
10. Water conservation projects that include water storage tanks and a Forbearance Agreement, for the purpose of storing winter water for summer use, require registration of water use pursuant to the Water Code §1228.3, and require consultation with CDFW and compliance with all lawful conditions required by CDFW. Diversions to fill storage facilities during the winter and spring months shall be made pursuant to a Small Domestic Use Appropriation (SDU) filed with the State Water Resources Control Board (SWRCB). CDFW will review the appropriation of water to ensure fish and wildlife resources are protected. The following conditions shall then be applied:
    a. Seasonal Restriction: No pumping is allowed when stream flow drops below 0.7 cubic feet per second (cfs) except as permitted by CDFW in the event of an emergency.
    b. Bypass Flows: Pumping withdrawal rates shall not exceed 5% of stream flow. If CDFW determines that the streamflow monitoring data indicate that fisheries are not adequately protected, then the bypass flows are subject to revision by CDFW.
    c. Cumulative Impacts: Pumping days shall be assigned to participating landowner(s) when stream flows drop below 1.0 cfs to prevent cumulative impacts from multiple pumps operating simultaneously.

d. Pump Intake Screens: Pump intake screens shall comply with the “2000 California Department of Fish and Game Screening Criteria” * for California streams that provide habitat for juvenile Coho Salmon, Chinook Salmon, and steelhead trout. The landowner shall be responsible for annual inspection and maintenance of screens. Additionally, the landowner shall be responsible for cleaning screens as needed to keep them free of debris and ensure that screen function complies with the criteria specifications.

e. These conditions do not authorize incidental take of any species, removal of riparian vegetation, or bed, bank, or channel alteration.

f. CDFW shall be granted access to inspect the pump system. Access is limited to the portion of the landowner's real property where the pump is located and those additional portions of the real property which must be traversed to gain access to the pump site. Landowners shall be given reasonable notice and any necessary arrangements will be made prior to requested access including a mutually-agreed-upon time and date. Notice may be given by mail or by telephone with the landowner or an authorized representative of the landowner. The landowner shall agree to cooperate in good faith to accommodate CDFW access.

_____

*Fish Screening Criteria are from "State of California Resources Agency Department of Fish and Game Fish Screening Criteria, June 19, 2000." The "approach velocity" shall be calculated according to Section 2C "Screens which are not Self Cleaning."

XI. LAND USE AND PLANNING

No specific mitigation measures are required for land use and planning

XII. MINERAL RESOURCES

No specific mitigation measures are required for mineral resources.

XIII. NOISE

Personnel shall wear hearing protection while operating or working near noisy equipment (producing noise levels ≥85 dB, including chain saws, excavators, and back hoes). No other specific mitigation measures are required for noise.

XIV. POPULATION AND HOUSING

No specific mitigation measures are required for population and housing.

XV. PUBLIC SERVICES

No specific mitigation measures are required for public services.

XVI. RECREATION

No specific mitigation measures are required for recreation.

XVII. TRANSPORTATION

The project will not affect transportation/traffic, because erosion control and culvert replacement projects will occur in wildland/rural sites with very little use. There is a potential that culvert replacement at some work sites could temporarily interfere with emergency access. This potential impact will be avoided through implementation of the following mitigation measure at any sites where emergency access might be necessary:

1) During excavation for culvert replacement, the grantee shall provide a route for traffic around or through the construction site.

XVIII. TRIBAL CULTURAL RESOURCES

Ground-disturbance will be required to implement the project at certain locations that, despite efforts to identify cultural resources, have the potential to affect these resources. The procedure for a programmatic evaluation of archeological resources is provided in Appendix E. Potential for inadvertent impacts will be avoided through implementation of the following mitigation measures:

1. The Grantee shall contract with an archaeologist(s) or other historic preservation professional that meets The Secretary of the Interior's Professional Qualifications Standards (36 CFR Part 61, and 48 FR 44716) to complete cultural resource surveys at any sites with the potential to be impacted prior to any ground disturbing activities. This work may be augmented with the aid of a Native American cultural resources specialist that is culturally affiliated with the project area. Cultural resource surveys shall be conducted using standard protocols to meet CEQA Guideline requirements.

2. If cultural resource sites are identified at a project location, CDFW will require one or more of the following protective measures to be implemented before work can proceed: a) fencing to prevent accidental disturbance of cultural resources during construction, b) on-site monitoring by cultural resource professionals during construction to assure that cultural resources are not disturbed, c) redesign of proposed work to avoid disturbance of cultural resources.

3. The Grantee shall report any previously unknown historic, archeological, and paleontological remains discovered at a project location to CDFW for reporting to the USACE as required in the RGP.

4. CDFW shall ensure that the grantee or responsible party is aware of these site-specific conditions, and shall inspect the work site before, during, and after completion of the action item.

5. Inadvertent Discovery of Cultural Resources - If cultural resources, such as lithic debitage, ground stone, historic debris, building foundations, or bone, are discovered during ground-disturbance activities, work shall be stopped within 20 meters (66 feet) of the discovery, per the requirements of CEQA (January 1999 Revised Guidelines, Title 14 CCR § 15064.5 (f)). Work near the archaeological finds shall not resume until an archaeologist that meets the Secretary of the Interior's Standards and Guidelines suited to the discovery, has evaluated the materials, and offered recommendations for further action. Cultural materials not associated with human interments shall be documented and curated in place.

6. Inadvertent Discovery of Human Remains - If human remains are discovered during project construction, work shall stop at the discovery location, within 20 meters (66 feet), and any nearby area reasonably suspected to overlie adjacent to human remains (Public Resources Code, § 7050.5). The county coroner shall be contacted to determine if the cause of death must be investigated. If the coroner determines that the remains are of Native American origin, it is necessary to comply with state

laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American heritage Commission (NAHC) (Public Resources Code, § 5097). The coroner will contact the NAHC. The descendants or most likely descendants of the deceased will be contacted, and work shall not resume until they have made a recommendation to the landowner or the person responsible for the excavation work for means of treatment and disposition, with appropriate dignity, of the human remains and any associated grave goods, as provided in Public Resources Code, § 5097.98.

7. Procedures for treatment of an inadvertent discovery of human remains:

    a. Immediately following discovery of known or potential human remains all ground-disturbing activities at the point of discovery shall be halted.

    b. No material remains shall be removed from the discovery site, and a reasonable exclusion zone shall be cordoned off.

    c. The CDFW Grant Manager and property owner shall be notified and the CDFW Grant Manager shall contact the county coroner.

    d. The Grantee shall retain the services of a professional archaeologist to immediately examine the finds and assist the process.

    e. All ground-disturbing construction activities in the discovery site exclusion area shall be suspended.

    f. The discovery site shall be secured to protect the remains from desecration or disturbance, with 24-hour surveillance, if prudent.

    g. Discovery of Native American remains is a very sensitive issue, and all project personnel shall hold any information about such a discovery in confidence and divulge it only on a need-to-know basis, as determined by the CDFW.

    h. The coroner has two working days to examine the remains after being notified. If the remains are Native American, the coroner has 24 hours to notify the NAHC in Sacramento (telephone 916-653-4082).

    i. The NAHC is responsible for identifying and immediately notifying the Most Likely Descendant (MLD) of the deceased Native American.

    j. The MLD may, with the permission of the landowner, or their representative, inspect the site of the discovered Native American remains and may recommend to the landowner and CDFW Grant Manager means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The descendants shall complete their inspection and make recommendations or preferences for treatment with 48 hours of being granted access to the site (Public Resource Code, § 5097.98(a)). The recommendation may include the scientific removal and non-destructive or destructive analysis of human remains and items associated with Native American burials.

    k. Whenever the NAHC is unable to identify a MLD, or the MLD identified fails to make a recommendation, or the landowner or his/her authorized representative rejects the

recommendation of the MLD and mediation between the parties by the NAHC fails to provide measures acceptable to the landowner, the landowner or his/her authorized representatives shall re-inter the human remains and associated grave offerings with appropriate dignity on the property in a location not subject to further subsurface disturbance in accordance with Public Resource Code, § 5097.98(e).

l. Following final treatment measures, the CDFW shall ensure that a report is prepared that describes the circumstances, nature and location of the discovery, its treatment, including results of analysis (if permitted), and final disposition, including a confidential map showing the reburial location. Appended to the report shall be a formal record about the discovery site prepared to current California standards on DPR 523 form(s). CDFW shall ensure that report copies are distributed to the appropriate California Historic Information Center, NAHC, and MLD.

8. Pursuant to RGP78 and in accordance with 36 C.F.R. § 800.13, in the event of any discovery during construction of human remains, archeological deposits, or any other type of historic property, the CDFW shall notify the appropriate USACE archeological staff within 24 hours. Construction work shall be suspended immediately and shall not resume until USACE re-authorizes project construction.

9. If it becomes impossible to implement the project at a work site without disturbing cultural resources, then activity at that work site shall be discontinued.

XIX. UTILITIES AND SERVICE SYSTEMS

No specific mitigation measures are required for utilities and service systems.

XX. WILDFIRE

No specific mitigation measures are required for wildfire due to majority of project activities being conducted within instream and riparian habitats. However, the projects will still implement minimization measures as an added safety precaution to further decrease any wildfire risks.

1. Project proponents using mechanized hand tools (e.g., chainsaws) shall have federal- and/or state-approved spark arrestors.

2. Project proponents shall require tree cutting crews to carry one fire extinguisher per chainsaw.

3. Project proponents shall require each vehicle to be equipped with one long-handled shovel and one axe or Pulaski.

4. Parking areas shall be designated and kept free of dry vegetation both before and during construction. Where heavy equipment or generators are used, fire extinguishers shall be made available on, or near such equipment.

5. Smoking shall only be permitted in designated areas that are barren or cleared to mineral soil at least three feet in diameter.

SECTION 2: MONITORING AND REPORTING

CDFW shall implement the following measures to ensure that individual restoration projects authorized annually through the RGP (RGP-12 and RGP-78) will minimize take of listed salmonids, monitor and report take of listed salmonids, and to obtain specific information to account for the effects and benefits of salmonid restoration projects authorized through the RGP.

1. CDFW shall provide USACE, NOAA, and USFWS notification of projects that are authorized through the RGP. The notification shall be submitted at least 90 days prior to project implementation and must contain specific project information including name of project, type of project, location of project including hydrologic unit code (HUC), creek, watershed, city or town, and county.

2. CDFW Grant Managers shall inspect the work site before, during, and after completion of the action item, to ensure that all necessary mitigation measures to avoid impacts are properly implemented.

3. CDFW shall perform implementation monitoring immediately after the restoration activity is completed to ensure that projects are completed as designed.

4. CDFW shall perform effectiveness/validation monitoring on at least 10 percent of restoration projects funded annually. A random sample, stratified by project type and region, shall be chosen from the pool of new restoration projects approved for funding each year. Pre-treatment monitoring shall be performed for newly selected projects, and post-treatment monitoring will be performed within three years following project completion.

5. Current monitoring forms and instructions used by CDFW for the implementation monitoring and effectiveness monitoring are found in the *California Salmonid Stream Habitat Restoration Manual*. CDFW shall submit a copy of the annual report, no later than March 1 annually to NOAA.

6. The CDFW annual report to NOAA shall include a summary of all restoration action items completed during the previous year. The annual report shall include a summary of the specific type and location of each project, stratified by individual project, 5th field HUC and affected species and evolutionary significant unit (ESU)/Distinct Population Segment (DPS). The report shall include the following project-specific summaries, stratified at the individual project, 5th field HUC, and ESU level:

    a. A summary detailing fishes relocation activities; including the number and species of fish relocated and the number and species injured or killed. Any capture, injury, or mortality of adult salmonids or half-pounder steelhead shall be noted in the monitoring data and report. Any injuries or mortality from a fish relocation site that exceeds three percent of the affected listed species shall have an explanation describing why.

    b. The number and type of instream structures implemented within the stream channel.

    c. The length of stream bank (feet) stabilized or planted with riparian species.

    d. The number of culverts replaced or repaired, including the number of miles of restored access to unoccupied salmonid habitat.

    e. The distance (miles) of road decommissioned.

    f. The distance (feet) of aquatic habitat disturbed at each project site.

7. CDFW shall incorporate project data into a format compatible with the CDFW/NOAA/Pacific Fisheries Management Council Geographic Information System (GIS) database, allowing scanned project-specific reports and documents to be linked graphically within the GIS database.

8. For counties within the jurisdiction of RGP-12, CDFW shall submit an annual report due by January 31 of each year of implemented projects to the U.S. Fish and Wildlife Service Office, 2800 Cottage Way, Sacramento, California 95825. The report must include:

    a. A table documenting the number of California red-legged frogs killed, injured, and handled during each FRGP project that utilizes the USACE authorization.

    b. A summary of how the terms and conditions of the biological opinions (file no. 08ESMF00-2016-F-0874) and the protective measures by the USACE and CDFW worked.

    c. Any suggestions of how the protective measures could be revised to improve conservation of this species while facilitating compliance with the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act).

9. For Santa Barbara County, CDFW shall submit an annual report due by February 28 (RGP-78) of each year of implemented projects to the U.S. Fish and Wildlife Service Office, 2493 Portola Road, Suite B, Ventura, California 93003. The report must include:

    a. A table documenting the number of California red-legged frogs killed, injured, and handled during each FRGP project that utilizes the USACE authorization.

    b. A summary of how the terms and conditions of the biological opinions (file no. 08EVEN00-2016-F-0093 and 2008-F-0441) and the protective measures by the USACE and CDFW worked.

    c. Any suggestions of how these protective measures could be revised to improve conservation of this species while facilitating compliance with the Act.

10. CDFW shall submit annual reports on July 1 of each year to the 401 Program Managers of the State Water Resources Control Board and the appropriate Regional Water Quality Control Boards documenting work undertaken during the preceding year and identifying for all such work:

    a. Project name and grant number.

    b. Project purpose and brief description.

    c. Name(s) of affected water body(ies).

    d. Latitude/longitude in decimal degrees to at least four decimals.

    e. For ongoing projects:

        i. Project progress and schedule including initial ground disturbance, site clearing and grubbing, road construction, site construction, and the implementation status of construction storm water best management practices (BMPs).

            1. If construction has not started, provide estimated start date and reasons for delay.

ii. Map showing general project progress.

iii. Mitigation for temporary impact status

1. Planned date of initiation and map showing locations of mitigation for temporary impacts to waters of the state and all upland areas of temporary disturbance which could result in a discharge to waters of the state.

2. If mitigation for temporary impacts has already commenced, provide a map and information concerning attainment of performance standards contained in the restoration plan.

iv. Restoration and enhancement status

1. Planned date of initiation of vegetation installation.

2. If installation is in progress, a map of what has been completed to date.

3. If the restoration site has been installed, provide a final map and information concerning attainment of performance standards contained in the individual project specifications.

f. For projects completed during the year:

i. The type(s) of receiving (affected) water body(ies) (e.g., at minimum: river/streambed, lake/reservoir, ocean/estuary/bay, riparian area, or wetland type); and

ii. The total quantity in acres of each type of receiving water body temporarily impacted, and permanently impacted.

iii. Pre- and post-photo documentation of all restoration sites, including revegetation sites.

iv. A report establishing that the performance standards outlined in the individual project specifications have been met.

v. Final map of all restoration areas.

vi. A report establishing that the performance standards outlined in the restoration plan have been met for each project site upland areas and/or waters of temporary disturbance.

g. For each water body type affected, the quantity of waters of the U.S. temporarily and permanently impacted. Fill/excavation discharges shall be reported in acres and fill/excavations discharges for channels, shorelines, riparian corridors, and other linear habitat shall also be reported in linear feet.

h. Actual construction start and end-dates.

i. Whether the project is on-going or completed.

j. Copies of reports documenting the following monitoring activities:

i. Post-project monitoring immediately after the activity is completed to ensure that projects are completed as designed; and

ii. Effectiveness monitoring on a random subset of 10% of the projects, within one to three years after project completion.

11. The Grantee shall notify CDFW so it can report any previously unknown historic archeological and paleontological remains discovered at a site to the USACE as required in the RGP. This information will also be provided to the Native American Heritage Commission, 915 Capitol Mall, Sacramento, CA 95814.

12. Pursuant to RGP-78, CDFW shall monitor and maintain the structures or work conducted at a given site for at least three years after construction to ensure the integrity of the structure and successful growth of the planted vegetation.

13. CDFW shall allow representatives of USACE to inspect the authorized activities at any time deemed necessary to ensure that they are being or have been accomplished with the terms and conditions of the RGP.

14. Pursuant to RGP-78, CDFW shall notify the USACE annually of the year's projects. If the USACE has not issued a Notice to Proceed (NTP) or identified any issues (verbal or written) within 60 days of receive the notifications, CDFW can proceed with project. The NTP may include site specific special conditions to avoid and minimize adverse impacts to waters of the U.S and shall be valid for the duration of the RGP78 unless there is a change in the project's scope of work.