



Sonoma County Public Infrastructure

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MITIGATION MONITORING PROGRAM

Sonoma County Permit and Resource Management Department

2550 Ventura Ave, Santa Rosa, CA 95403

(707) 565-1900 Fax (707) 565-1103

Project:	Russian River-River Road Bank Stabilization Project		
Project Applicant:	Sonoma County Public Infrastructure Department		
Location:	Russian River at River Road northeast of Geyserville, in unincorporated Sonoma County		
Lead Agency:	Sonoma County	Decision Making Body:	Board of Supervisors
P.P.R #:	TBD	Date Approved:	November 5, 2024
SCH #:	2024080682	Contact Person(s):	Rich Stabler

Time of Implementation

Design:	The mitigation measure will be incorporated into the project design and/or included in the plans and contract special provisions prior to awarding a construction contract.
Pre-Construction:	The mitigation measure will be implemented before construction begins.
Construction:	The mitigation measure will be implemented during construction.
Post-Construction:	The mitigation measure will be implemented after project construction.

Responsible Persons

The Permit and Resource Management Department will designate an Environmental Specialist. The Department of Public Infrastructure will designate a Design Engineer and a Construction Engineer.

The Environmental Specialist will certify that a review of the project and plans and specifications was made with the Design Engineer prior to advertising for construction bids or otherwise initiating project construction. The Design Engineer will identify how each mitigation measure has been incorporated into the project. The Construction Engineer (or other person identified in the program) will certify that the mitigation measure has been implemented.

Environmental Record

Before the construction contract is awarded, the Design Engineer will forward the mitigation monitoring program to the Construction Engineer, with a copy to the Environmental Specialist. At completion of construction the Construction Engineer will return the original signed mitigation monitoring program to the Environmental Specialist for filing.

RECORD OF COMPLIANCE

The Environmental Specialist has reviewed the project design and plans and specifications with the Design Engineer to assure that the responsibility for completion of the mitigation measures has been assigned and plans and specifications incorporate the appropriate mitigation measures.

Environmental Specialist _____ date _____

Mitigation Measure AIR-1

The County will or has incorporated the following measure to avoid or minimize construction generated emissions:

- a. Exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas and unpaved access roads) shall be watered three times per day;
- b. Haul trucks transporting soil, sand, or other loose material off-site shall be covered or shall have at least two feet of freeboard;
- c. Visible mud or dirt tracked-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping shall be prohibited;
- d. Vehicle speeds on unpaved areas shall be limited to 15 miles per hour;
- e. Paving shall be completed as soon as possible after trenching work is finished;
- f. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points;
- g. Construction equipment shall be maintained and properly tuned in accordance with the manufacturer’s specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation; and
- h. A publicly visible sign shall be posted with the telephone number and person to contact at the County regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Time of Implementation: Construction

- Method: Incorporated into the project design
- X Included in the project plans and specifications (contractor will implement)
 - X County forces

X Other (specify): Certified Mechanic

Construction/Design Engineer certifies that this mitigation measure was implemented and monitored during construction.

Comments:

Mitigation Measures BIO-1

The County will or has incorporated the following measure to avoid or minimize impacts on special-status Reptiles and Amphibians:

The following measures shall be implemented during construction:

- a. Environmental Awareness Briefings. Prior to construction or related activities in areas where the California red-legged frog or other species of special concern (foothill-yellow legged frog, California giant salamander, red-bellied newt, and Western pond turtle) are likely to occur, environmental staff shall brief contractors and other participants about its potential presence. The briefings shall include a flyer with photos and a description of the species and its habitat, the general provisions of applicable regulatory guidelines and the necessity to comply, and the measures that are being implemented to conserve the species as they relate to the activity.
- b. Construction Restrictions. Construction activities within riparian and aquatic areas (ephemeral and intermittent watercourses) shall be limited to the minimum area and duration required to meet the project design requirements.
- c. Seasonal Restrictions. Work within aquatic or riparian habitat shall be restricted to an in-stream work window, from June 15 through October 15, depending on rainfall, or, as determined by regulatory agency permits.
- d. Biological Monitoring and Inspections. When work is scheduled to occur in aquatic or riparian habitat that may provide habitat for foothill yellow-legged frog or western pond turtle, a qualified biologist shall inspect the work areas prior to the start of work in that area. The biologist shall visually inspect aquatic and riparian habitat, leaf litter, debris, vegetation, and small mammal or other burrows within the potential disturbance area. The qualified biologist shall be present at the work site until such time as the inspection of habitat, instruction of workers, and disturbance have been completed. The monitor shall have the authority to halt any action that might result in impacts to foothill yellow-legged frog or other special status species. In the event that a western pond turtle is observed within a work area, the USFWS Sacramento Field Office USFWS shall be immediately notified, and work will be halted within 100 feet of the individual until the frog has left on its own volition. In the event that a foothill yellow legged frog, California giant salamander, red-bellied newt are observed, they may be moved to a safe location in similar habitat outside of the construction zone.
- e. Decontamination for Chytrid Fungus and Other Pathogens. Any equipment (boots, nets, shovels) that has been used off site will be decontaminated prior to conducting activities in riparian or wetland habitat. Decontamination will comprise the equipment being scrubbed with a 75 percent ethanol solution or bleach solution (0.5-1.0 cup/gallon of water) and then rinsed with water. Decontamination will not occur within 100 feet of aquatic resources.

Time of Implementation: Pre-Construction, Construction

Method: Incorporated into the project design

X Included in the project plans and specifications (contractor will implement)

X County forces

X Other (specify): Qualified Biologist

Construction/Design Engineer certifies that this mitigation measure was implemented and monitored during construction.

Comments:

Mitigation Measures BIO-2

The County will or has incorporated the following measure to avoid or minimize impacts on special-status migratory and nesting birds:

The following measures shall be implemented during construction:

- a. Environmental Awareness Briefings. Prior to construction or related activities in areas where nesting birds are likely to occur, environmental staff shall brief contractors and other participants about protective measures for nesting birds. The briefings shall include general provisions of applicable regulatory guidelines and the necessity to comply, and the measures that are being implemented to conserve the species as they relate to the activity.
- b. Seasonal Restrictions. Ground disturbance (i.e., grading, earthwork, drilling), tree removal, and vegetation clearing shall be conducted outside of the avian nesting season (the nesting season is typically March 1 – August 15 of any given year).
- c. Pre-construction Surveys. If ground disturbance, tree removals, or vegetation clearing cannot be confined to outside of the avian nesting season, a qualified biologist shall conduct pre-construction nesting bird surveys. Surveys shall include a full area search for nesting activity within the project area and a buffered distance of 50 feet. In addition, this should include frequent visual raptor scans with binoculars within the biological study area (the project boundary and a buffered distance of 500 feet), due to the potential for special status raptors to occur. If raptors are observed, the full area search may include searching for raptors in areas within the biological study area. If the entire area and buffer cannot be physically searched, it shall be visually and audibly assessed. The biologist shall conduct, at minimum, a one-day pre-construction survey within the seven-day period prior to tree/vegetation removal and ground-disturbing activities. If ground disturbance and tree/vegetation removal work lapses for seven days or longer during the nesting season, the qualified biologist shall conduct a supplemental avian pre-construction survey before project work is reinitiated.
- d. No Construction Buffer Zones. If active nests are detected, the qualified biologist shall flag a buffer around each nest. Construction activities shall avoid nest sites until the biologist determines that the young have fledged or nesting activity has ceased. If nests are documented

outside of the project study boundary, but up to 500 feet of the area, buffers would be implemented as needed. The buffer size for common species would be determined on a case-by-case basis in consultation with CDFW. Buffer sizes would take into account factors such as (1) noise and human disturbance levels at the construction site; (2) distance and amount of vegetation or other screening between the construction site and the nest; and (3) sensitivity of individual nesting species. If special status bird species are presumed to be nesting, but no nest is detected, buffers may also be implemented.

- e. Nest Monitoring. The qualified biologist shall monitor all located nests at least once per week to determine nesting status and whether birds are being disturbed. If signs of disturbance or distress are observed, the qualified biologist shall immediately implement adaptive measures to reduce disturbance. These measures may include, but are not limited to, increasing buffer size, and/or halting disruptive construction activities in the vicinity of the nest until fledging is confirmed or nesting activity has ceased.

Time of Implementation: Design, Pre-Construction, Construction

Method: Incorporated into the project design

- X Included in the project plans and specifications (contractor will implement)
- X County forces
- X Other (specify): Qualified Biologist

Design/Construction Engineer certifies that this mitigation measure was implemented and monitored during construction.

Comments:

Mitigation Measures BIO-3

The County will or has incorporated the following measure to avoid or minimize impacts on special-status fish:

The following measures shall be implemented during construction:

- a. Environmental Awareness Briefings. Prior to construction or related activities in aquatic habitat where special status fish, crustacean, and mollusk species may occur, environmental staff shall brief contractors and other participants about its potential presence. The briefings shall include a flyer with photos and a description of the species and its habitat, the general provisions of applicable regulatory guidelines and the necessity to comply, and the measures that are being implemented to conserve the species as they relate to the activity.
- b. Seasonal Restrictions. Work within the bed or bank of the Russian River shall be restricted to an in-stream work window, June 15 through October 15, depending on rainfall, or, as determined by regulatory agency permits. Construction within the bed or bank of any stream channel shall occur while streams are dry and no construction shall occur where flowing water is present. If a small amount of water persists within a stream bed during the in-water work window, work may

- be conducted only after the wetted portions of the stream have been investigated by a qualified biologist and it has been determined, by close inspection with nets or other appropriate methods, that special status species are not present and will not be affected by construction.
- c. Stormwater and Erosion BMPs. Stormwater, spill prevention, and general pollution prevention BMPs referenced in Mitigation Measure BIO-7 shall be implemented to reduce potential water quality degradation, dust, or erosion to areas adjacent to construction activities.

Time of Implementation: Design, Pre-construction, Construction

Method:	Incorporated into the project design
X	Included in the project plans and specifications (contractor will implement)
X	County forces
X	Other (specify): Qualified Biologist

Design/Construction Engineer certifies that this mitigation measure was implemented and monitored during construction.

Comments:

Mitigation Measures BIO-4

The County will or has incorporated the following measure to avoid or minimize impacts on special-status Bats:

The following measures shall be implemented during construction:

- a. Seasonal Restrictions. To the extent possible, removal of potential bat roosting habitat (i.e., tree cavities, loose bark, structures, etc.) shall be conducted during seasonal periods of bat activity (when bats are volant, i.e., able to leave roosts) between March 1 and April 15 or September 1 and October 15.
- b. Apply Two-Step Removal for Bat Tree Roost Habitat. A two-step process shall be applied for the removal of potential tree roost habitat during the bat volant period (i.e., when bats are active and able to leave their roosts). On day 1, limbs and branches shall be removed by a tree cutter using chainsaws. Limbs with cavities, crevices, or deep bark fissures shall be avoided. On day 2, the entire tree shall be removed.
- c. Pre-construction Surveys. If potential bat roosting habitat cannot be removed during the volant period and project activities must occur during the bat maternity season (April 16 through August 31), a qualified biologist shall conduct surveys for roosting bats within suitable habitat within seven days prior to removal. Survey methodology shall include visual examination of potential roosting bat habitat and may utilize ultrasonic detectors or fecal collection for genetic testing to determine species.
- d. Maternal Roost No Construction Buffer Zones. If evidence of maternal bat roosts (i.e., accumulation of bat guano, ammonia odor, grease stained cavities) are detected within the construction area, an appropriate buffer distance shall be established in consultation with the

CDFW to ensure that construction noise would remain below disturbance thresholds for special status bat species. Buffers may be removed when roosting activity has ceased and/or bats become volent

Time of Implementation: Pre-Construction, Construction

Method: Incorporated into the project design
Included in the project plans and specifications (contractor will implement)
X County forces
X Other (specify): Qualified Biologist

Design/Construction Engineer certifies that this mitigation measure was implemented and monitored during construction.

Comments:

Mitigation Measures BIO-5

The County will or has incorporated the following measure to avoid or minimize impacts on special-status sensitive natural communities:

The Project proponent shall require any impact to riparian and wetland vegetation or waters of the U.S./State be minimized where unavoidable by siting construction staging and access areas outside sensitive natural communities and by utilizing previously disturbed upland areas for staging. Certified weed-free permanent and temporary erosion control measures (e.g., fabric wattles) shall be used to minimize erosion and sedimentation during and after construction. Temporary impacts on sensitive natural communities shall be restored by revegetation with native species. Revegetated sensitive natural areas shall be monitored for a five-year period to ensure success, according to the Habitat Restoration, Enhancement, and Monitoring Plan described in Mitigation Measure BIO-6.

Any permanently impacted riparian or wetland areas shall be mitigated in accordance with specifications of applicable regulatory agency permits; including compensatory mitigation, if required, with replacement of like habitat on- or off-site, at a minimum 1.1:1 ratio, or as otherwise specified by applicable resource agency permit(s).

During construction and restoration, to avoid the spread of invasive plant species and pathogens, the Project proponent shall ensure all vehicles and equipment entering the site shall be clean of invasive weeds. All construction equipment shall be washed thoroughly to remove all dirt, plant, and other foreign material prior to entering the Project site. Particular attention shall be given to the under-carriage and any surface where soil containing invasive weeds and exotic seeds may exist. Arrangements shall be made for inspections of each piece of equipment before entering the Project site to ensure all equipment has been properly washed. Equipment found operating that has not been properly washed shall be shut down and may be subject to citation:

- a. Certified weed-free permanent and temporary erosion control measures shall be implemented to minimize erosion and sedimentation during and after construction.
- b. The Project shall conform to applicable federal, state, and local seed and noxious (invasive) weed laws.
- c. Nursery operations where plants are stored, propagated, or purchased must certify implementation of best management practices to reduce pest and pathogen contamination within their nursery.
- d. Disturbed and de-compacted areas outside the restoration area shall be revegetated with locally native vegetation. Revegetated areas shall be protected and tended, including watering when needed, until restoration criteria specified by regulatory agency-issued permits is complete.
- e. All tree removal and pruning activities shall include measures to avoid the spread of the Sudden Oak Death (SOD) pathogen. Such measures may include, but are not limited to the following:
 - i. As a precaution against spreading the pathogen, clean and disinfect pruning tools after use on confirmed or suspected infested trees or in known infested areas. Sanitize tools before pruning healthy trees or working in pathogen-free areas. Clean chippers and other vehicles of mud, dirt, leaves, organic material, and woody debris before leaving a site known to have SOD and before entering a site with susceptible hosts.
 - ii. Inform crews about the arboricultural implications of SOD and sanitation practices when they are working in infested areas.
 - iii. Provide crews with sanitation kits containing chlorine bleach, scrub brush, metal scraper, boot brush, and plastic gloves.
 - iv. Sanitize shoes, pruning gear, and other equipment before working in an area with susceptible species.
 - v. When possible, work on SOD-infected and susceptible species during the dry season (June–October). When working in wet conditions, keep equipment on paved, graveled, or dry surfaces and avoid mud. Work in disease-free areas before proceeding to infested areas.
 - vi. If possible, do not collect soil or plant material (wood, brush, leaves, and litter) from host trees in the quarantine area. Within the quarantine area, host material (e.g., wood, bark, brush, chips, leaves, or firewood) from tree removals or pruning of symptomatic or non-symptomatic host plants should remain onsite to minimize pathogen spread.
 - vii. Use all reasonable methods to sanitize personal gear and crew equipment before leaving a SOD infested site. Scrape, brush, and/or hose off accumulated soil and mud from clothing, gloves, boots, and shoes. Remove mud and plant debris by blowing out or power washing chipper trucks, chippers, bucket trucks, fertilization and soil aeration equipment, cranes, and other vehicles. Restrict the movement of soil and leaf litter under and around infected trees as spores may be found there.
 - viii. Tools used in tree removal/pruning may become contaminated and should be disinfected with alcohol or chlorine bleach.

Time of Implementation: Design, Construction, Post-construction

Method:	Incorporated into the project design
X	Included in the project plans and specifications (contractor will implement)
X	County forces
X	Other (specify): Qualified Biologist

Design/Construction Engineer certifies that this mitigation measure was implemented and monitored during construction.

Comments:

Mitigation Measures BIO-6

The County will or has incorporated the following measure for habitat restoration and monitoring:

Prior to construction, the County shall obtain all required environmental permits, including Clean Water Act Water Quality Certification (Section 401), Federal and state permits for wetlands (Section 404), and CDFW Lake and Streambed Alteration Agreement, and adhere to the conditions of each.

At least 30 days prior to the completion of project activities, the County shall submit a Restoration and Enhancement Plan (Plan) to CDFW for review and written approval. No project activities shall commence until the Plan is approved by CDFW in writing. The Plan shall detail compensation for permanent impacts to the Russian River and the surrounding riparian habitat in the form of restoration or enhancement of riparian habitat on-site, or off-site as close to the project site as possible, and within the same watershed. The plan shall also describe the onsite restoration of temporary impacts to riparian habitat associated with the Russian River. The Plan shall also include monitoring and success criteria. The Plan shall be implemented within the same calendar year as the completion of project activities unless otherwise approved in writing by CDFW. If planting occurs in a later year, a higher replacement ratio may be required by CDFW to offset the temporal loss of habitat. More than one plan may be necessary for restoration activities in different locations.

Restoration and monitoring shall be guided by a qualified biologist experienced in wetland habitat restoration. Restoration shall include protocols for replanting of native vegetation removed prior to or during construction, and management and monitoring of the plants to ensure replanting success. The following measures shall apply to site restoration:

- a. Areas impacted from construction-related activity shall be replanted or reseeded with locally collected and grown native shrubs and herbaceous species suitable for riparian locations, under guidance from a qualified restoration biologist.
- b. To ensure a successful revegetation effort as required by Measure 3.1, all plants shall be monitored and maintained as necessary for five years. At the end of the five years of monitoring, with at least three years without supplemental irrigation, each category of plantings (e.g., oaks, other trees, shrubs, etc.) shall have a minimum of 85% survival at the end of the minimum monitoring period and plantings shall attain 70% cover after 3 years and 75% cover after 5 years, unless approved in writing by CDFW. Survival and cover criteria shall both be required unless the herbaceous or spreading plants cannot be differentiated by individual, in which case only cover success criteria are required.
- c. The plan shall describe compensation for the removal of trees at the below minimum replacement to impact ratios:
 - a. 1:1 for removal of non-native trees

- b. 1:1 for removal of native trees up to 3 inches DBH
- c. 3:1 for removal of native trees greater than 3 inches to 6 inches DBH
- d. 6:1 for removal of native trees greater than 6 inches DBH
- e. 1:1 for removal of oak trees up to 3 inches DBH
- f. 4:1 for removal of oak trees up to 6 inches DBH
- g. 8:1 for removal of oak trees greater than 6 inches to 15 inches DBH
- h. 10:1 for removal of oak trees greater than 15 inches DBH

Replacement tree plantings shall consist of 5-gallon or greater saplings and locally collected seeds, stakes, or other suitable nursery stock as appropriate, and shall be native species to the area adapted to the lighting, soil, and hydrological conditions at the replanting site. If acorns are used for oak tree replanting, each planting will include a minimum of three acorns planted at an approximately two-inch depth to minimize predation risk. Large acorns shall be selected for planting. Replacement oaks shall come from nursery stock grown from locally sourced acorns, or from acorns gathered locally, preferably from the same watershed in which they are planted.

Time of Implementation: Design, Pre-Construction, Post Construction

- Method: X Incorporated into the project design
- X Included in the project plans and specifications (contractor will implement)
- X County forces
- X Other (specify): Qualified Biologist

Design/Construction Engineer certifies that this mitigation measure was implemented and monitored during construction.

Comments:

Mitigation Measures BIO-7

The County will or has incorporated the following measure for best management practices to protect aquatic resources:

Prior to the start of construction activity within jurisdictional features, required permits from the United States Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife shall be obtained. Conditions of approval outlined in the permits shall be implemented during construction, and the County shall ensure that the project does not result in a net loss of wetlands.

The following measures shall be implemented:

- a. Seasonal Restrictions. Work within the bed or bank of any stream channel shall be restricted to an in-stream work window of June 15 through October 15, or as determined through regulatory

- agency permits. Construction within the bed or bank of any stream channel or watercourse shall occur while streams are dry and no construction shall occur where flowing water is present.
- b. Stormwater and Erosion BMPs. Stormwater and general pollution prevention BMPs shall be implemented to reduce potential water quality degradation to areas adjacent to construction activities. Suitable erosion and sediment control BMPs, such as silt fences, fiber rolls, and/or earthen berms shall be installed or constructed between work zones and/or staging and stockpile areas and any stream channel to intercept potential sediment and runoff to receiving waters during rain events. These structures shall be installed pursuant to regulatory specifications prior to pending rain events greater than 50 percent possibility of rain within 24 hours, as forecasted by the National Weather Service. Any sediment caught by erosion and sediment control BMPs shall be removed and disposed of prior to BMP removal. Temporary spoils or construction material sites shall be located so as to not drain directly into ditches, streams, or other waterbodies. If a spoils/construction materials site has potential to drain into a surface water feature, a retention basin, berm(s), or other catchment device shall be constructed or installed to intercept runoff before it reaches any waterbody. All exposed mineral soil, or stockpiles to remain on-site through the wet season shall be winterized and protected from erosion associated with wind and rain (e.g., silt fences, straw bales, straw mulch, and tarps).
 - c. Stormwater Pollution Prevention Plan (SWPPP). The County or its contractor shall obtain coverage under the SWRCB National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit; Order No. 2009-009- DWQ as amended by 2010-2014-DWQ). The County and its contractor shall prepare and implement a project specific Storm Water Pollution Prevention Plan (SWPPP) that manages pollutant sources, identifies erosion and sediment control measures and water quality protection measures, and prescribes best management practices to protect water quality pre- and post-construction. The SWPPP would address pollutant sources, best management practices, and other requirements specified in the Order. A Qualified SWPPP Practitioner would oversee implementation of the SWPPP.
 - d. Spill Prevention and Containment. Equipment shall be staged, and materials shall be stockpiled, outside of stream channels (above top of bank of the Russian River), wetlands, Proposed Mitigated Negative Declaration Page 44 and riparian habitat. Equipment shall be cleaned of deleterious materials before being delivered to the job site. Refueling will occur at least 100 feet away from any identified aquatic resource or riparian habitat. Gas cans will only be stored in identified staging areas and will utilize secondary containment features. Any construction equipment operating adjacent to or over a stream shall be inspected daily for leaks. No equipment will be left overnight below the top of bank of the Russian River. Any oil, fuel, and grease residue that has the potential to fall from machinery shall be removed and properly disposed of. Fueling trucks shall be equipped with sealed spill kits at all times.
 - e. Revegetation of Disturbed Areas. Areas disturbed by construction and temporary storage sites shall be reseeded and mulched with a suitable erosion control seed mixture post-construction upon completion of construction. Seeds shall be comprised of California native and regionally appropriate species. No fertilizers shall be used in any seed mixes, and no straw shall be applied below top of bank of the Russian River.
 - f. Design Features. If feasible, natural bottom culverts shall be incorporated into the design when culvert replacement is required to maximize beneficial habitat. Banks shall be regraded to match existing topography

Time of Implementation: Design, Construction, Post-Construction

- Method: X Incorporated into the project design
- X Included in the project plans and specifications (contractor will implement)
- X County forces
- X Other (specify): Qualified SWPP Practitioner

Design/Construction Engineer certifies that this mitigation measure was implemented and monitored during construction.

Comments:

Mitigation Measure CR-1

The County will or has incorporated the following measure to protect archeological resources and tribal cultural resources if encountered during construction:

To limit potential impacts on archaeological resources, the project specifications shall require the contractor to comply with the following measures regarding the discovery of cultural resources, including Native American Tribal Cultural Resources and items of historical and archaeological interest:

- a. The County's Construction Inspector and construction personnel shall be notified of the possibility of encountering cultural resources during project construction prior to the start of ground-disturbing activities.
- b. The County shall notify the Tribal Historic Preservation Officers (THPOs) of the appropriate Native American Tribes in writing at least five days prior to the start of the project's ground-disturbing activities that work will commence.
- c. Prior to initiation of ground-disturbing activities, the County shall arrange for construction personnel to receive training about the kinds of cultural materials that could be present at the project site and protocols to be followed should any such materials be uncovered during construction. An archaeologist who meets the U.S. Secretary of Interior's professional standards (48 CFR Parts 44738-44739 and Appendix A to 36 CFR 61) shall provide the appropriate archaeological training, including the purpose of the training to increase awareness and appropriate protocols in the event of an inadvertent discovery.
- d. The project specifications will provide that if discovery is made of items of historical, archaeological, or cultural interest, the contractor will immediately cease all work activities in the area of discovery. Historical, archaeological, and cultural indicators may include, but are not limited to, dwelling sites, locally darkened soils, stone implements or other artifacts, fragments of glass or ceramics, animal bones, and human bones. After cessation of ground-disturbing activities, the contractor will immediately contact the County's Construction Inspector and the THPOs. The contractor will not resume work until the authorization is received from the Construction Inspector.
- e. Should an archaeological deposit be encountered during ground disturbance in the project area, all ground-disturbing activities within 25 feet shall be stopped. The County Construction Inspector shall notify a qualified archaeologist meeting the Secretary of the Interior's

Professional Qualifications Standards for Archeology contacted to assess the situation and make recommendations for the treatment of the discovery. If the deposit is found to be significant (i.e., eligible for listing in the NRHP) and an adverse effect would occur, the County in consultation with the SHPO and THPOs, shall identify appropriate treatments for the discovery.

Time of Implementation: Pre-Construction, Construction

Method: Incorporated into the project design

- X Included in the project plans and specifications (contractor will implement)
- X County forces
- X Other (specify): Qualified Archaeologist

Design/Construction Engineer certifies that this mitigation measure was implemented and monitored during construction.

Comments:

Mitigation Measure CR-2

The County will or has incorporated the following measure to protect remains if encountered during construction:

To limit potential impacts on human remains, the County shall implement the following measures:

- a. In the event that human remains are identified during project construction, these remains must be treated in accordance with Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the Public Resources Code, as appropriate.
- b. Section 7050.5 of the California Health and Safety Code states that, in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification. The NAHC will identify a Native American Most Likely Descendent (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.
- c. Section 5097.98 of the Public Resources Code states that the NAHC, upon notification of the discovery of Native American human remains pursuant to Health and Safety Code Section 7050.5, shall immediately notify those persons (i.e., the MLD) it believes to be descended from the deceased. With permission of the landowner or a designated representative, the MLD may inspect the remains and any associated cultural materials and make recommendations for treatment or disposition of the remains and associated grave goods. The MLD shall provide

recommendations or preferences for treatment of the remains and associated cultural materials within 48 hours of being granted access to the site.

Time of Implementation: Construction

Method: Incorporated into the project design

- X Included in the project plans and specifications (contractor will implement)
- X County forces
- X Other (specify): Tribal Representative

Design/Construction Engineer certifies that this mitigation measure was implemented and monitored during construction.

Comments:

Mitigation Measure GEO-1

The County will or has incorporated the following measure to protect paleontological resources if encountered during construction:

- a. If fossils are encountered during construction (i.e., bones, teeth, or unusually abundant and well-preserved invertebrates or plants), construction activities shall be diverted away from the discovery within 50 feet of the find, and a professional paleontologist shall be notified to document the discovery as needed, to evaluate the potential resource, and to assess the nature and importance of the find. Based on the scientific value or uniqueness of the find, the paleontologist may record the find and allow work to continue, or recommend salvage and recovery of the material, if it is determined that the find cannot be avoided. The paleontologist shall make recommendations for necessary treatment that is consistent with currently accepted scientific practices. Any fossils collected from the area shall then be deposited in an accredited and permanent scientific institution where they would be properly curated and preserved.

Time of Implementation: Construction

Method: Incorporated into the project design

- X Included in the project plans and specifications (contractor will implement)
- X County forces
- X Other (specify): Qualified Paleontologist

Design/Construction Engineer certifies that this mitigation measure was implemented and monitored during construction.

Comments:

Mitigation Measure HAZ-1

The County will or has incorporated the following measure to minimize emergency evacuation impacts during construction:

During construction, the County and its contractor shall implement traffic controls to ensure River Road remains a viable emergency evacuation route, including:

- a. During construction, at least one lane in each direction of River Road shall be kept open at all times. Through traffic shall be maintained through temporary signals, flaggers or other means.
- b. Construction shall be coordinated with emergency service providers and administrators of land uses that may be more affected by traffic impacts, such as fire stations, schools, hospitals, and ambulance providers. As construction progresses, emergency providers, and other land uses as mentioned above, shall be notified in advance of construction of the timing, location, and duration of construction activities and the locations and durations of any temporary detours and/or lane closures.
- c. The contractor shall be required to have ready the means necessary to accommodate access by emergency vehicles, such as plating over any excavations, flaggers or other means. This includes opening the road to two-way traffic in the event of an emergency evacuation in the area.

Time of Implementation: Construction

Method: Incorporated into the project design

X Included in the project plans and specifications (contractor will implement)

X County forces

Other (specify)

Design/Construction Engineer certifies that this mitigation measure was implemented and monitored during construction.

Comments:

Mitigation Measure HAZ-2

The County will or has incorporated the following measure to reduce wildland fire hazards:

- a. At the start of construction, the County and its contractor shall remove or clear away dry, combustible vegetation from within the area of direct impact. Grass and other vegetation less than 18 inches in height above the ground shall be maintained in the construction area where necessary to stabilize the soil and prevent erosion. Vehicles shall not be parked in areas where

exhaust systems contact combustible materials. Fire extinguishers shall be available to assist in quickly extinguishing any small fires, and contractors shall have on site the direct phone number for the local fire departments.

Time of Implementation: Construction

Method: Incorporated into the project design

X Included in the project plans and specifications (contractor will implement)

X County forces

Other (specify)

Design/Construction Engineer certifies that this mitigation measure was implemented and monitored during construction.

Comments:

Mitigation Measure HYDROLOGY-1

The County will or has incorporated the following measure to avoid or minimize impacts on hydrological resources:

During construction, the County and its contractor shall implement the following:

- a. Equipment staging and storage areas for vehicles, equipment, material, fuels, lubricants, and solvents would be restricted to designated areas and would be a minimum of 25 feet from jurisdictional features and outside of the drip-line of adjacent native vegetation communities.
- b. Prior to construction, high visibility ESA protective fencing or flagging would be installed at the limits of construction to protect existing vegetation to remain, which is outside of clearing and grubbing limits, from the contractor's operations, equipment, and materials storage. ESA protection areas would be identified on the project plans to limit contractor work areas in consultation with Permit Sonoma PRMD staff.
- c. BMPs, such as silt fencing, fiber rolls, straw bales, or other measures would be implemented during construction to minimize dust, dirt, and construction debris from entering into jurisdictional resources and native vegetation communities, and/or leaving the construction area. No erosion control materials containing plastic monofilament netting (erosion control matting) or similar material containing netting within the project area would be used due to documented evidence of wildlife species becoming entangled or trapped in such material. Acceptable substitutes include coconut coir matting or similar.
- d. Appropriate hazardous material BMPs would be implemented to reduce the potential for chemical spills or contaminant releases into the jurisdictional features and native vegetation communities, including any non-stormwater discharge. Any hazardous or toxic materials that could be washed into jurisdictional features and be deleterious to aquatic life would be

- contained in watertight containers or removed from the construction site. In addition, spill kits would be kept on site and field personnel would be trained on how to use them appropriately.
- e. All equipment refueling, and maintenance would be conducted in the staging area away from jurisdictional features, outside of the top of bank of the Russian River, and outside of the drip-line of adjacent native vegetation communities. In addition, vehicles and equipment would be checked daily for fluid and fuel leaks, and drip pans would be placed under all equipment that is parked and not in operation. Any leaking vehicle or equipment would not be operated in the project area until repaired. All workers would be informed of the importance of preventing spills and the appropriate measures to take should a spill happen.
 - f. Stationary equipment such as motors, pumps, generators, compressors, and welders located within 50 feet of the jurisdictional resources and native vegetation communities would be positioned over drip-pans, including when in operation.

Time of Implementation: Pre-Construction, Construction

- Method: Incorporated into the project design
- X Included in the project plans and specifications (contractor will implement)
 - X County forces
 - Other (specify)

Design/Construction Engineer certifies that this mitigation measure was implemented and monitored during construction.

 Comments:

Mitigation Measure NOI-1

The County will or has incorporated the following measure to reduce construction noises: To reduce construction noise, the County shall require the contractor to implement the following measures:

- a. Limit hours of construction to avoid the early morning and evening hours (such as 7 am to 7 pm weekdays and 7 am to 5 pm weekends).
- b. Limit work to non-motorized equipment on Sundays and holidays.
- c. Use sound blankets for loud operations such as air compressors or other mechanical equipment.
- d. Site construction staging areas as far as practical from nearby sensitive receptors.
- e. Require street legal mufflers on construction equipment.

Time of Implementation: Construction

- Method: Incorporated into the project design
- X Included in the project plans and specifications (contractor will implement)
 - X County forces

Other (specify)

Design/Construction Engineer certifies that this mitigation measure was implemented and monitored during construction.

Comments:

Mitigation Measure TRAF: HAZ-1

The County will or has incorporated the following measure to minimize emergency evacuation impacts during construction:

During construction, the County and its contractor shall implement traffic controls to ensure River Road remains a viable emergency evacuation route, including:

- a. During construction, at least one lane in each direction of River Road shall be kept open at all times. Through traffic shall be maintained through temporary signals, flaggers or other means.
- b. Construction shall be coordinated with emergency service providers and administrators of land uses that may be more affected by traffic impacts, such as fire stations, schools, hospitals, and ambulance providers. As construction progresses, emergency providers, and other land uses as mentioned above, shall be notified in advance of construction of the timing, location, and duration of construction activities and the locations and durations of any temporary detours and/or lane closures.
- c. The contractor shall be required to have ready the means necessary to accommodate access by emergency vehicles, such as plating over any excavations, flaggers or other means. This includes opening the road to two-way traffic in the event of an emergency evacuation in the area.

Time of Implementation: Construction

Method: Incorporated into the project design

X Included in the project plans and specifications (contractor will implement)

X County forces

Other (specify)

Design/Construction Engineer certifies that this mitigation measure was implemented and monitored during construction.

Comments:

Mitigation Measure TCR: CR-1

The County will or has incorporated the following measure to protect archeological resources and tribal cultural resources if encountered during construction:

To limit potential impacts on archaeological resources, the project specifications shall require the contractor to comply with the following measures regarding the discovery of cultural resources, including Native American Tribal Cultural Resources and items of historical and archaeological interest:

- a. The County's Construction Inspector and construction personnel shall be notified of the possibility of encountering cultural resources during project construction prior to the start of ground-disturbing activities.
- b. The County shall notify the Tribal Historic Preservation Officers (THPOs) of the appropriate Native American Tribes in writing at least five days prior to the start of the project's ground-disturbing activities that work will commence.
- c. Prior to initiation of ground-disturbing activities, the County shall arrange for construction personnel to receive training about the kinds of cultural materials that could be present at the project site and protocols to be followed should any such materials be uncovered during construction. An archaeologist who meets the U.S. Secretary of Interior's professional standards (48 CFR Parts 44738-44739 and Appendix A to 36 CFR 61) shall provide the appropriate archaeological training, including the purpose of the training to increase awareness and appropriate protocols in the event of an inadvertent discovery.
- d. The project specifications will provide that if discovery is made of items of historical, archaeological, or cultural interest, the contractor will immediately cease all work activities in the area of discovery. Historical, archaeological, and cultural indicators may include, but are not limited to, dwelling sites, locally darkened soils, stone implements or other artifacts, fragments of glass or ceramics, animal bones, and human bones. After cessation of ground disturbing activities, the contractor will immediately contact the County's Construction Inspector and the THPOs. The contractor will not resume work until the authorization is received from the Construction Inspector.
- e. Should an archaeological deposit be encountered during ground disturbance in the project area, all ground-disturbing activities within 25 feet shall be stopped. The County Construction Inspector shall notify a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology contacted to assess the situation and make recommendations for the treatment of the discovery. If the deposit is found to be significant (i.e., eligible for listing in the NRHP) and an adverse effect would occur, the County in consultation with the SHPO and THPOs, shall identify appropriate treatments for the discovery.

Time of Implementation: Pre-Construction Construction

Method:	Incorporated into the project design
X	Included in the project plans and specifications (contractor will implement)
X	County forces
X	Other (specify): Qualified Archaeologist

Design/Construction Engineer certifies that this mitigation measure was implemented and monitored during construction.

Comments:

Mitigation Measure TCR: CR-2

The County will or has incorporated the following measure to protect remains if encountered during construction:

To limit potential impacts on human remains, the County shall implement the following measures:

- a. In the event that human remains are identified during project construction, these remains must be treated in accordance with Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the Public Resources Code, as appropriate.
- b. Section 7050.5 of the California Health and Safety Code states that, in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification. The NAHC will identify a Native American Most Likely Descendent (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.
- c. Section 5097.98 of the Public Resources Code states that the NAHC, upon notification of the discovery of Native American human remains pursuant to Health and Safety Code Section 7050.5, shall immediately notify those persons (i.e., the MLD) it believes to be descended from the deceased. With permission of the landowner or a designated representative, the MLD may inspect the remains and any associated cultural materials and make recommendations for treatment or disposition of the remains and associated grave goods. The MLD shall provide recommendations or preferences for treatment of the remains and associated cultural materials within 48 hours of being granted access to the site.

Time of Implementation: Construction

- Method:
- Incorporated into the project design
 - X Included in the project plans and specifications (contractor will implement)
 - X County forces
 - X Other (specify): Tribal Representative

Design/Construction Engineer certifies that this mitigation measure was implemented and monitored during construction.

Comments:

Mitigation Measure WF: HAZ-1

The County will or has incorporated the following measure to minimize emergency evacuation impacts during construction:

During construction, the County and its contractor shall implement traffic controls to ensure River Road remains a viable emergency evacuation route, including:

- a. During construction, at least one lane in each direction of River Road shall be kept open at all times. Through traffic shall be maintained through temporary signals, flaggers or other means.
- b. Construction shall be coordinated with emergency service providers and administrators of land uses that may be more affected by traffic impacts, such as fire stations, schools, hospitals, and ambulance providers. As construction progresses, emergency providers, and other land uses as mentioned above, shall be notified in advance of construction of the timing, location, and duration of construction activities and the locations and durations of any temporary detours and/or lane closures.
- c. The contractor shall be required to have ready the means necessary to accommodate access by emergency vehicles, such as plating over any excavations, flaggers or other means. This includes opening the road to two-way traffic in the event of an emergency evacuation in the area.

Time of Implementation: Construction

Method: Incorporated into the project design

X Included in the project plans and specifications (contractor will implement)

X County forces

Other (specify)

Design/Construction Engineer certifies that this mitigation measure was implemented and monitored during construction.

Comments:

Mitigation Measure WF: HAZ-2

The County will or has incorporated the following measure to reduce wildland fire hazards:

At the start of construction, the County and its contractor shall remove or clear away dry, combustible vegetation from within the area of direct impact. Grass and other vegetation less than 18 inches in height above the ground shall be maintained in the construction area where necessary to stabilize the soil and prevent erosion. Vehicles shall not be parked in areas where exhaust systems contact

combustible materials. Fire extinguishers shall be available to assist in quickly extinguishing any small fires, and contractors shall have on site the direct phone number for the local fire departments.

Time of Implementation: Construction

- Method: Incorporated into the project design
- X Included in the project plans and specifications (contractor will implement)
 - X County forces
 - Other (specify)

Design/Construction Engineer certifies that this mitigation measure was implemented and monitored during construction.

Comments: