

# COASTAL CONSERVANCY

Staff Recommendation  
June 5, 2008

## **SHINGLE MILL GULCH FISH BARRIER REMOVAL**

File No. 08-056  
Project Manager: Kate Goodnight

**RECOMMENDED ACTION:** Authorization to disburse up to \$300,000 to the County of Santa Cruz to retrofit one culvert and replace another along Eureka Canyon Road, both located on Shingle Mill Gulch, a tributary to Corralitos Creek in Santa Cruz County, to implement the Shingle Mill Gulch Fish Passage Improvement Program.

**LOCATION:** Shingle Mill Gulch, tributary to Corralitos Creek in Santa Cruz County (Exhibit 1)

**PROGRAM CATEGORY:** Integrated Coastal and Marine Resources Protection

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### **EXHIBITS**

- Exhibit 1: [Project Location and Site Map](#)
  - Exhibit 2: [Site Photographs](#)
  - Exhibit 3: [Letters of Support](#)
  - Exhibit 4: [Initial Study, Mitigated Negative Declaration and Notice of Determination](#)
  - Exhibit 5: [Mitigation Monitoring and Reporting Program](#)
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### **RESOLUTION AND FINDINGS:**

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Section 31220 of the Public Resources Code:

“The State Coastal Conservancy (the “Conservancy”) hereby authorizes the disbursement of an amount not to exceed \$300,000 (three hundred thousand dollars) to the County of Santa Cruz (the “County”) to retrofit one culvert and replace another along Eureka Canyon Road to implement the Shingle Mill Gulch Fish Passage Improvement Program and adopts the Mitigation Monitoring and Reporting Program (Exhibit 5). This authorization is subject to the following conditions:

1. Prior to the County’s commencement of work, the Executive Officer of the Conservancy shall approve in writing a work program, schedule of completion, project budget, and any contractors to be employed.

2. The County shall submit evidence that all necessary permits have been obtained.
3. The County shall provide evidence, for the Conservancy's Executive Officer's approval, that it has obtained rights in the project sites adequate for construction, maintenance and monitoring of the project.
4. The County shall provide evidence to the Conservancy's Executive Officer that it has implemented the Mitigation Monitoring and Reporting Program, attached to the accompanying staff recommendation as Exhibit 5.
5. The County shall implement post-project effectiveness monitoring for three years following construction according to a monitoring plan approved by the Conservancy's Executive Officer."

Staff further recommends that the Conservancy adopt the following findings:

"Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed project is consistent with the Project Selection Criteria and Guidelines, last updated by the Conservancy on September 20, 2007.
2. The proposed project is consistent with the purposes and criteria set forth in Chapter 5.5 of Division 21 of the Public Resources Code regarding integrated coastal and marine resources protection.
3. The Conservancy has independently reviewed and considered the Mitigated Negative Declaration adopted by the County of Santa Cruz on May 15, 2008, pursuant to the California Environmental Quality Act ("CEQA"), for the Shingle Mill Gulch Fish Barrier Removal project (Exhibit 4). The Conservancy finds that there is no substantial evidence that the project, as mitigated, will have a significant effect on the environment, as defined in 14 California Code of Regulations Section 15382."

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**PROJECT SUMMARY:**

Staff recommends authorization to disburse up to \$300,000 to the County of Santa Cruz (the "County") to retrofit an existing culvert at Post Mile 4.8 (PM 4.8) and replace a culvert at Post Mile 5.24 (PM 5.24), both on Eureka Canyon Road. It is anticipated that the project will be implemented by the County's Department of Public Works ("DPW"). The proposed project is part of a comprehensive effort to restore fish passage in the Corralitos Creek watershed and its tributary, Shingle Mill Gulch. The project will improve fish passage in two of the seven identified passage barriers in this watershed. Both culverts fail to meet fish passage criteria for adult and juvenile steelhead over a range of flows and the culvert at PM 5.24 is severely undersized and misaligned causing erosion that impacts spawning habitat. Both culverts are located on Shingle Mill Gulch, a major tributary to Corralitos Creek, which drains into Salsipuedes Creek and then into the Pajaro River and Monterey Bay, in southern Santa Cruz County.

The Corralitos Creek watershed is a high priority steelhead stream and supports one of the most robust runs of steelhead in the South-Central California Coast Distinct Population Segment (“DPS”). Fisheries restoration efforts in Corralitos Creek have been a major focus of the National Marine Fisheries Service (“NMFS”) due to the quality of habitat in Corralitos Creek, the reality that the current population is self-sustaining, and the watershed’s location as the most downstream salmonid-bearing tributary to the Pajaro River. Due to its location on the Pajaro River, Corralitos Creek, including the Shingle Mill Gulch tributary, is accessible to steelhead even in the driest years when fish are unable to reach many of the tributaries higher in the watershed. Both DFG and NMFS have been closely involved in the design of each Shingle Mill Gulch culvert project.

The proposed project is a part of a larger effort to retrofit fish barriers in the Corralitos Creek watershed, pursuant to the Integrated Watershed Restoration Program (“IWRP”) for Santa Cruz County and recommended by the IWRP Technical Advisory Committee (“TAC”), described below. The IWRP TAC recommended retrofit of five crossings in the Corralitos Creek watershed and the Conservancy has funded designs and permits for all five of these crossings. The proposed project sites represent two of the five man-made fish passage barriers in the Corralitos Creek watershed identified as high or moderate priority projects in the local watershed plan, “*The County of Santa Cruz Stream Crossing Inventory and Fish Passage Evaluation*” (the “*Fish Passage Evaluation*”) prepared by Ross Taylor & Associates and adopted in 2004, described below. Three of the five crossings, including the Shingle Mill Gulch culverts, are slated for implementation in 2008. The remaining two crossings, both on Browns Valley Creek, another tributary to Corralitos Creek, are awaiting landowner approval prior to implementation. It should also be noted that two additional fish passage barriers have been identified as high priorities in the watershed and are slated for retrofit: the City of Watsonville’s fish ladder retrofit is being designed and permitted with IWRP funds and is scheduled for construction in 2008; and a private road crossing on Corralitos Creek is being addressed through the IWRP Permit Coordination Program (described below). By the end of 2009, all of the major fish passage barriers in this system are expected to be modified or removed.

#### Eureka Canyon Road PM 4.8: Culvert Retrofit

The proposed improvements to the PM 4.8 culvert are recommended pursuant to the *Fish Passage Evaluation* (pp. 145-146). The PM 4.8 culvert was ranked as a high priority and did not meet adult salmonid passage criteria at any time over the range of passage flows. The culvert also failed to meet passage criteria at any flow for juvenile salmonids. In concert with modification to the PM 5.24 culvert, this project will facilitate access to nearly 5,400 feet of fish-bearing habitat. Perhaps one of the most important aspects of this project is that surveys conducted by DFG and the County’s fish biologist indicate that not only is there significant rearing habitat above these culverts, but that there is also “headwater” spawning habitat above the PM 5.24 culvert.

The PM 4.8 culvert is structurally sound and nearly conveys the entire 50-year peak flow without overtopping. For this reason, the County has opted to leave the culvert in place and modify the downstream channel conditions to make the low flow hydraulic conditions more suitable for fish migration.

The proposed project features include:

- Cutting of a 3-foot wide by 6-inch section out of the culvert outlet sill
- Removal of existing concrete apron
- Installation of additional rock over the existing large rock downstream of the concrete apron to create a weir.
- Installation of a series of three rock lined step-pools.
- Re-grading the bed to shift low flows from the right to the left side of the channel to align more effectively with the weir low flow indentations.

The designs for both the PM 4.8 and the PM 5.24 culverts have been scrutinized by the IWRP TAC, and the project consultants, Northwest Hydraulic Consultants, have also worked extensively with Marcin Whitman (DFG and Conservancy hydraulic engineer) to refine the approach and ensure it meets the highest standards for fish passage within the constraints of the project sites.

#### Eureka Canyon Road PM 5.24: Culvert Replacement

The *Fish Passage Evaluation* ranked this culvert as a moderate priority due to the fact that it was estimated to meet adult salmonid passage criteria 85% of the time over the range of passage flows (pp. 147-148). However, the culvert fails to meet passage criteria at any flow for juvenile salmonids. The culvert is undersized, the bottom is deteriorating, and the current alignment creates a chronic erosion hazard at both the upstream and downstream end of the culvert. For these reasons, and because of the desire to address all of the man-made barriers in the watershed, the IWRP TAC suggested this project be included as part of IWRP's comprehensive fish passage improvement strategy for Corralitos Creek. Due to the condition of the culvert, the County and the TAC agreed that the culvert should be replaced and a larger natural bottom box culvert be installed.

The proposed project will remove the existing deteriorated culvert and replace it with a concrete box culvert. The project features include:

- Removal of the existing 6 foot diameter culvert and replacement with a countersunk 12-foot by 9-foot precast box culvert.
- Installation of a boulder, cobble, and gravel bed within the culvert.
- Installation of an 18-foot long wing wall along the left bank downstream of the culvert.
- Installation of a 37-foot long wing wall along the right bank upstream of the culvert.
- Installation of rock scour protection at the culvert inlet and outlet and along the wing wall footings.
- Installation of rock toe protection along the outside of the bend immediately downstream of the culvert.
- Resurfacing of the roadway in the vicinity of the culvert replacement.

The County plans to construct the project at both sites between July 1, 2008 and October 15, 2008. All physical components of the project using Conservancy funds will be maintained by DPW for no less than 20 years. DPW will prepare a post-project effectiveness monitoring plan to be approved by the Executive Director of the Conservancy, which will include an annual report for three years following construction to determine whether the project is functioning as designed. At a minimum, this monitoring report will include an inspection of the condition and

functioning of the site improvements and measurements to ensure that agreed upon fish passage criteria are being met.

DPW has developed the expertise to efficiently conduct the tasks necessary for successful completion of this project. DPW successfully executed both the Valencia Road Culvert Retrofit in 2006 and the Valencia Creek Fish Ladder Replacement in 2007 with Conservancy funds. One of the primary functions of DPW is to design municipal projects, administer the public bidding process, and to manage and inspect construction of those projects. DPW has taken literally hundreds of projects from concept through construction. DPW has also developed a high level of proficiency in grant administration, most recently executing Phases I & II of the San Lorenzo River Erosion Assessment and Prevention Project (2004), the County of Santa Cruz Stream Crossing Inventory and Fish Passage Evaluation (2004), and Erosion Control Training (2002), all funded by the Department of Fish and Game Fishery Restoration Grants Program. While managing these projects, DPW was solely responsible for timely invoicing, preparing project updates, hiring consultants, overseeing and auditing consultant performance, and keeping the projects on the prescribed timeline and within budget.

**Site Description:** Both project sites are located approximately four miles north of the town of Corralitos in Santa Cruz County, California. At the two project sites, Shingle Mill Gulch is a high gradient (6 to 10% slope), boulder-dominated stream flowing through dense second growth redwood (*Sequoia sempervirens*) forest. The two sites are approximately 1,800 feet apart, and PM 4.8 (the most downstream of the two culverts) is approximately 1,800 feet upstream of the confluence with Corralitos Creek. Near the City of Watsonville, Corralitos Creek merges with Salsipuedes Creek, which is tributary to the Pajaro River. The Pajaro River drains to Monterey Bay.

As described above, Shingle Mill Gulch and the Corralitos Creek watersheds provide critical habitat for the South-Central California Coast DPS of steelhead trout (federally- and state-listed as threatened). The areas in the vicinity of the project sites provide rearing and overwintering habitat for juvenile steelhead and are most likely a migratory corridor for adult steelhead attempting to reach higher quality spawning habitat upstream of PM 5.24. There is no high quality spawning habitat in the project reaches due to the steepness of the channel and armoring of the streambed. Coarse substrate, organic matter and nutrients in the project reach support aquatic macroinvertebrate production which provides a source of food for juvenile steelhead and various bird species.

The vegetation community at both project sites is redwood forest with big leaf maple (*Acer macrophyllum*) as sub-dominant in the overstory. Although altered by development and logging, the redwood forest in the project area provides habitat for birds and mammals, as well as some species of reptiles, amphibians and mollusks. Resident birds in the project area are likely to include Steller's jay (*Cyanocitta stelleri*), western scrub jay (*Aphelocoma californica*), California towhee (*Pipilo crissalis*) and dark-eyed junco (*Junco hyemalis*). Various hawks and owls may also be active in the area. The redwood forest has some native understory plants with fruit and seeds which provide forage for wildlife. The natural cavities in redwood forest trees provide opportunities for nesting by birds, cover for small mammals such as raccoons (*Procyon lotor*) and roosting by bats. Most of the mammals that occur in this habitat are essentially year-round residents. Mammals known to occur in the vicinity of the project sites include coyote

(*Canis latrans*), bobcat (*Lynx rufus*), mountain lion (*Puma concolor*), black-tailed deer (*Odocoileus hemionus ssp. Columbianus*) and gray squirrel (*Sciurus griseus*) (Santa Cruz State Parks, 2007). The cool, damp microclimate of the redwoods attracts amphibians and reptiles such as coast range newt (*Taricha torosa torosa*) and California mountain kingsnake (*Lampropeltis zonata*).

**Project History:** Between 1998 and 2003, the Conservancy, DFG, and the Regional Water Quality Control Board (“RWQCB”) funded over 14 fish passage and erosion risk assessments and watershed restoration plans for seven watersheds in Santa Cruz County. Staff from the Conservancy, DFG, Resource Conservation District of Santa Cruz County, the County and City of Santa Cruz, and the Coastal Watershed Council recognized that implementing the recommendations of these assessments and plans would be best accomplished by bringing together federal, state, and local resource and permitting agencies to identify the highest priority projects and assist with locating funding sources, providing technical assistance, and facilitating permitting. This led to the creation of the Integrated Watershed Restoration Program for Santa Cruz County. The mission of IWRP is to facilitate and coordinate projects to improve fish and wildlife habitat and water quality in Santa Cruz County watersheds using a voluntary, non-regulatory approach. Typical IWRP restoration projects include sediment reduction, fish passage improvement, and wetland and lagoon restoration. IWRP recently won a 2008 Riparian Challenge Award from the American Fisheries Society for its innovative approach to fisheries restoration.

Phase 1 of IWRP was funded by the Conservancy as a grant to the Resource Conservation District of Santa Cruz County in 2003. The primary focus of Phase 1 is to help project leads with the cost and complexity of designs and permits for approximately 75-85 priority projects recommended in the watershed plans and/or promoted by resource agencies. The TAC, composed of federal, state, and local resource and permitting agencies, oversees and facilitates the selection, design, and permitting of priority projects to ensure that they are designed in the most technically feasible and cost-effective way. In conjunction with Phase 1 of IWRP, the Conservancy funded the first county-wide Partners in Restoration Permit Coordination Program (“Permit Coordination Program”) to help ease permitting complexity for landowners trying to do certain types of restoration projects.

In 2006, the strategic decision to use IWRP funding to design and permit all of the man-made barriers in the Corralitos Creek watershed was a direct response to recommendations from NMFS, DFG, the RWQCB, and the County. In addition to these public crossing barriers, which include the two Shingle Mill Gulch culverts, IWRP is working with a private landowner through the Permit Coordination Program to modify the only other known man-made passage impediments in the watershed.

Conservancy staff selected this project for possible funding based on the following considerations: 1) the benefits achieved by increasing fish passage throughout the entire watershed as a result of modifying these two significant barriers, 2) the thorough technical review of project designs by DFG and NMFS, 3) the lack of other funding sources available to ensure the project is implemented this year, and 4) confidence in the budget preparation and expertise of DPW to carry out the project.

**PROJECT FINANCING:**

Coastal Conservancy	\$300,000
State Water Resources Control Board	133,000
U.S. Dept. of the Interior – Coastal Impact Assistance Pgm*	42,020
County of Santa Cruz	<u>38,180</u>
<b>Total Project Cost</b>	<b>\$513,200</b>

The expected source for the Conservancy funds for this project is the Conservancy’s fiscal year 07/08 appropriation from the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (“Proposition 84”). Proposition 84 authorizes the Conservancy’s use of these funds for the purposes of protecting beaches, bays, coastal waters and coastal watersheds, and the natural habitat values of coastal waters and lands through projects undertaken pursuant to the Conservancy’s enabling legislation, Division 21 of the Public Resources Code. (Pub. Res. Code § 75060). Section 75060(e) of the Public Resources Code specifically allocates Conservancy funding for Monterey Bay and its watersheds, including the Shingle Mill Gulch watershed. The proposed project is consistent with the Conservancy’s enabling legislation, as discussed in the “Consistency with Conservancy’s Enabling Legislation” section below (Pub. Res. Code § 75074). This project is also appropriate for prioritization under the selection criteria set forth in Section 75071 in that there are non-state matching contributions toward the restoration, stewardship or management costs and the project will contribute to the long-term improvement to water and biological quality of the watershed and other coastal waters.

\*Pending approval by the State of California and the Minerals Management Service. Should these funds not be awarded, the County of Santa Cruz will contribute the remaining amount.

**CONSISTENCY WITH CONSERVANCY’S ENABLING LEGISLATION:**

This project would be undertaken pursuant to Chapter 5.5 (Section 31220) of the Conservancy's enabling legislation, Division 21 of the Public Resources Code, regarding Integrated Coastal and Marine Resources Protection. Section 31220(a) authorizes the Conservancy to undertake and award grants for projects that meet one or more of the criteria of Section 31220(b). Consistent with §31220(b)(2)-(3), the project will restore fish habitat within coastal watersheds and reduce the threats to coastal anadromous fish by modifying two significant anthropogenic barriers to fish migration and restoring access to over a mile of spawning and rearing habitat.

Consistent with §31220(a), staff has consulted with State Water Resources Control Board (“SWRCB”) in the development of the project to ensure consistency with Chapter 3 (commencing with §30915) [Clean Beaches Program] of Division 20.4 of the Public Resources Code.

Consistent with §31220(c), the project includes a monitoring component for three years following construction to evaluate project effectiveness. Also consistent with §31220(c), the

project is consistent with local watershed management plans. (*see* “Consistency With Local Watershed Management Plan/State Water Quality Control Plan,” section below).

**CONSISTENCY WITH CONSERVANCY’S 2007 STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):**

Consistent with **Goal 6, Objective D** of the Conservancy’s 2007 Strategic Plan, the project will modify two culverts and improve fish passage to allow access to over a mile of spawning and rearing habitat.

**CONSISTENCY WITH CONSERVANCY’S PROJECT SELECTION CRITERIA & GUIDELINES:**

The proposed project is consistent with the Conservancy’s Project Selection Criteria and Guidelines, last updated on September 20, 2007, in the following respects:

**Required Criteria**

1. **Promotion of the Conservancy’s statutory programs and purposes:** See the “Consistency with Conservancy’s Enabling Legislation” section above.
2. **Consistency with purposes of the funding source:** See the “Project Financing” section above.
3. **Support of the public:** Supporters of this project include State Senator Abel Maldonado, Assembly member John Laird, County Supervisor Ellen Pirie, the County of Santa Cruz Environmental Health Services Department, the Department of Fish and Game, the National Marine Fisheries Service, the Resource Conservation District of Santa Cruz County, and others. Letters of support are included in Exhibit 3.
4. **Location:** The project is located on the Shingle Mill Gulch tributary of the Corralitos Creek watershed in Santa Cruz County, which is partly in and partly out of the coastal zone. By modifying two significant passage barriers to restore access to over a mile of spawning and rearing habitat, the project will benefit coastal and marine anadromous fish.
5. **Need:** The proposed project would improve access to over a mile of spawning and rearing habitat and ensure the timely implementation of an important steelhead restoration opportunity benefitting the South-Central California Coast DPS. No other funding sources are available to fully fund the project and allow it to be constructed this year.
6. **Greater-than-local interest:** Restoration of anadromous fisheries is widely recognized as a local, state and federal goal and the project is supported by both DFG and NMFS. The Corralitos watershed, the lowest salmonid bearing tributary to the Pajaro River, represents one of the best opportunities for supporting recovery of the threatened South-Central California Coast Steelhead DSP.



**Additional Criteria**

7. **Urgency:** The two passage barriers block fish access to over a mile of spawning and rearing habitat on Shingle Mill Gulch. It is critical that these barriers are modified in a timely manner in order to restore access to key habitat for steelhead trout, a listed species. NMFS considers the Corralitos Creek watershed, which includes Shingle Mill Gulch, as its top priority for the protection and restoration of the South-Central California Coast DPS of steelhead trout.
9. **Leverage:** See the “Project Financing” section above.
11. **Innovation:** IWRP is a unique approach to comprehensive, coordinated watershed restoration and can be used as a model throughout the state. The implementation of this project demonstrates the effectiveness of this approach, particularly in the early involvement of DFG and NMFS in the design process.
12. **Readiness:** Project designs are complete and permits are already secured. DPW is ready to start construction this July. DPW has demonstrated that it has the expertise, local public support, and administrative capability necessary to commence and complete the project this year.
13. **Realization of prior Conservancy goals:** See “Project History” above.
15. **Cooperation:** The fundamental principle behind IWRP is the cooperation of local, state, and federal partners. This project developed out of the cooperation of the County Public Works and Environmental Health Departments, the Resource Conservation District, DFG, NMFS, Conservancy, and landowners along access routes, among many others.

**CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:**

By modifying two significant anthropogenic barriers to fishery migration and restoring passage to over a mile of spawning and rearing habitat, the proposed project will help to satisfy several of the priorities listed in the County's 1994 certified General Plan and Local Coastal Program (LCP), including:

- Objective 5.2 Riparian Corridors and Wetlands: To preserve, protect and restore all riparian corridor and wetlands for the protection of wildlife and aquatic habitat, water quality, erosion control, open space, aesthetic and recreational values and the conveyance and storage of flood waters (p. 5-9).
- Program (h): Identify and restore aquatic and marine habitats which have been damaged due to human activities (p.5-13).

**CONSISTENCY WITH LOCAL WATERSHED MANAGEMENT PLAN/  
STATE WATER QUALITY CONTROL PLAN:**

The two Shingle Mill Gulch culverts are recommended as priority projects in the local watershed management plan, the *County of Santa Cruz Stream Crossing Inventory and Fish Passage Evaluation* (2004).

Because it will facilitate the restoration of fish and wildlife habitat in coastal watersheds and wetlands, including habitat for the state- and federally-listed anadromous steelhead, the project is also consistent with the *Water Quality Control Plan for the Central Coastal Basin* (adopted by the RWQCB, Central Coast Region in 1994 and reviewed every three years) in that they will further the following beneficial use objectives:

- Wildlife habitat
- Rare, Threatened, or Endangered Species
- Migration of Aquatic Organisms
- Spawning, Reproduction, and/or Early Development.

### COMPLIANCE WITH CEQA:

Pursuant to the California Environmental Quality Act (“CEQA”), the County, as lead agency, prepared the Initial Study and Mitigated Negative Declaration, which were noticed and circulated for public review on April 10, 2008. The comment period ended on May 14, 2008. The County of Santa Cruz Planning Department approved the project and adopted the Mitigated Negative Declaration (“MND”) (Exhibit 4) on May 15, 2008. The grant of funds is subject to the condition that the County implements the Mitigation Monitoring and Reporting Program (“MMRP”) hereby adopted by the Conservancy (Exhibit 5). The County filed a Notice of Determination with the County of Santa Cruz on May 16, 2008.

CEQA requires consideration of potential environmental effects of agency actions and approvals, unless exempt. With respect to the work that the Conservancy would fund, the Initial Study and MND identified potentially significant impacts in the areas of biological resources, hazards and hazardous materials, noise and traffic. Mitigation measures have been adopted to assure that these potential impacts were eliminated or reduced to *less than significant levels*, as summarized below:

1. **Biological Resources:** The construction activities related to the proposed project may impact sensitive or listed wildlife species, including the South-Central California Coast (S-CCC) steelhead, the California red-legged frog (“CRLF”) and the San Francisco dusky-footed woodrat. Construction may require temporary disturbance and dewatering of approximately 6,200 square feet of designated S-CCC steelhead critical habitat, and native vegetation in construction access areas and along streambanks may be disturbed. The proposed project also calls for removal of up to 4 big leaf maples at PM 4.8 and 1 tanoak at PM 5.24.

To mitigate impacts to sensitive or listed species to *less than significant levels*, the MND requires: (1) implementation of the NMFS protection and minimizations measures articulated in the programmatic Biological Opinion (2006) authorizing the “take” of listed salmonid species, including S-CCC steelhead, during implementation of fisheries restoration projects (MND, p. 13); (2) A pre-construction survey of the project site for CRLF and the dusky-foot woodrat 48 hours prior to construction, requiring notification of the appropriate agency, relocation and biological monitoring by a qualified biologist, with authority to halt construction work if species are found (MND, pp. 13-14) and; (3) on-site worker education describing the biological and cultural resources of the project, with instructions that workers cease work if sensitive species are observed and to notify

the Biological Monitor. Other mitigation measures include: replacement of any removed native trees, in-kind, at a 3:1 ratio and maintained for 3 years after construction, and replanting any areas of disturbed native vegetation with locally appropriate native tree, shrub and herbaceous species.

2. **Hazards and Hazardous Materials:** Construction activities will require use of heavy equipment in the riparian area and equipment may operate in the bed and banks of the channel. This could increase the risk of release of hazardous materials (e.g., fuel, hydraulic fluids) into the environment.

Mitigation measures shall be implemented to reduce this impact to a *less than significant level*, including: implementation of a Spill Prevention and Containment Plan (Appendix B of the IS/MND) to reduce the potential of a release of hazardous materials (e.g., fuel, hydraulic fluids) and prepare for the unlikely event of a fuel or oil spill. The headwalls for the new culvert will be poured in place and will be isolated from the live stream for 30 days if feasible. If not feasible, a concrete sealant approved by the California Department of Fish & Game will be applied prior to any contact between the live stream and the fresh concrete. All concrete cleanup will take place in the staging area and will be one according to standard Best Management Practices (“BMPs”) regarding concrete work.

3. **Noise:** Construction could create a substantial temporary or periodic increase in ambient noise levels in the project vicinity.

These impacts will be addressed by restricting construction activities to the hours of 8 AM through 5 PM, Monday through Friday when the residents are frequently absent. The local residents will be contacted prior to the initiation of construction and be provided a schedule of construction activities.

4. **Transportation and Traffic:** Construction activities may impact traffic and transportation related to emergency access due to project construction related road/lane closures.

These impacts will be mitigated to a *less than significant* impact through preparation and implementation of an Emergency Response Plan by the County Department of Public Works, construction contractors, and emergency response personnel to ensure that proper equipment and personnel are staged in appropriate areas so that emergency services are not disrupted.

5. **Cultural Resources:** Although not identified as a significant impact because it is unlikely that any archaeological or paleontological resources will be disturbed in the area, pursuant to County Code Section 16.40.040, should any be discovered all work will cease and desist and comply with notification procedures given in County Code Section 16.40.040.

Staff has independently reviewed the County’s MND and MMRP for the proposed project and recommends that the Conservancy, as a responsible agency, find that there is no substantial evidence that the project, as mitigated, will result in a significant effect on the environment, as defined in 14 Cal. Code of Regulations Section 15382. Staff will file a Notice of Determination upon approval of the project.