COASTAL CONSERVANCY

Staff Recommendation
September 25, 2008

FIVE COUNTIES FISH PASSAGE IMPROVEMENT PROGRAM

File No. 05-109-04
Project Manager: Michael Bowen

RECOMMENDED ACTION Authorization to disburse to the County of Trinity up to $265,013 of previously authorized Conservancy funds to implement fish-passage improvement projects at Conner Creek and Ancestor Creek within the counties of Trinity and Mendocino, respectively.

LOCATION: Conner Creek, tributary to the Trinity River, and Ancestor Creek, tributary to the Mattole River, within the counties of Trinity and Mendocino, respectively (Exhibit 1).

PROGRAM CATEGORY: Resource Enhancement and Integrated Coastal and Marine Resources Protection

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EXHIBITS

Exhibit 1: Project Location and Site Maps

Exhibit 2: March 2, 2006 Staff Recommendation

Exhibit 3: Project Letters

Exhibit 4: 2008 Mitigated Negative Declaration (Conner and Ancestor creeks)

Exhibit 5: Mitigation Monitoring and Reporting Plan (Conner and Ancestor creeks)

Exhibit 6: Interim Reports regarding sensitive species and habitats (Conner and Ancestor creeks)

RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31251-31270 and 31220 of the Public Resources Code:

"The State Coastal Conservancy hereby authorizes the disbursement of previously authorized Conservancy funds for the County of Trinity's Five Counties Salmonid Conservation Program to implement fish passage improvement projects at Conner Creek (up to $159,518) and Ancestor Creek (up to $105,495) within the counties of Trinity and Mendocino, respectively, subject to the following conditions:

1. Prior to the disbursement of funds for either project, the County shall submit for the review and written approval of the Executive Officer of the Conservancy:
   a. A work program, including schedule, budget and detailed site plans for each of the projects and a plan for post-implementation monitoring to evaluate the success of each of the projects.
   b. A sign plan to acknowledge Conservancy funding for the projects.
   c. The names and qualifications of any contractors to be employed on the projects.
   d. Documentation that all permits and approvals necessary to the completion of the projects have been obtained.
2. In carrying out the projects, the County shall comply with all applicable mitigation and monitoring measures for the projects that are included in the 2008 Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program (attached to the accompanying staff recommendation as Exhibits 4 and 5), adopted by the Department of Fish and Game on June 9, 2008 under the California Environmental Quality Act ("CEQA"), and shall also comply with all mitigation, monitoring and other measures that are required by any permits and approvals for these projects.
3. The County shall provide evidence to the Executive Officer of the Conservancy that it has implemented the relevant portions of the Mitigation Monitoring and Reporting Program, attached to the accompanying staff recommendation as Exhibit 5.
4. The County shall implement post-project effectiveness monitoring for three years following construction according to a monitoring plan approved by the Executive Officer of the Conservancy."

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 projects are consistent with the purposes and criteria set forth in Chapter 5.5 of Division 21 of the Public Resources Code, regarding watershed enhancement, and set forth in Chapter 6 of Division 21 of the Public Resources Code, regarding the enhancement of coastal resources.
2. The project areas identified for action are directly and adversely impacting coastal areas and resources identified in the certified local coastal programs for Del Norte, Humboldt and Mendocino counties as requiring public action to resolve existing or potential resource protection problems.
3. The proposed authorization is consistent with the Project Selection Criteria and Guidelines last updated by the Conservancy on September 20, 2007.
4. The Conservancy has independently reviewed the Mitigated Negative Declaration and the Mitigation Monitoring and Reporting Plan (Exhibits 4 and 5) adopted under CEQA by the Department of Fish and Game on June 9, 2008, (attached as Exhibits 4 and 5 to the accompanying staff recommendation) with respect to the implementation of the fish passage

projects at Conner and Ancestor creeks. The Conservancy finds that there is no substantial evidence that the projects to be funded by the Conservancy, as mitigated, will have a significant effect on the environment, as defined in 14 California Code of Regulations Section 15382."

PROJECT SUMMARY:

At its March 2, 2006 meeting, the Conservancy authorized the disbursement of up to $700,000 for the County of Trinity's Five Counties Salmonid Conservation Program ("5C Program") to implement several fish passage improvement projects. The March 2, 2006 staff recommendation is attached as Exhibit 2. A condition of that authorization was that, prior to implementation of any specific fish passage improvement project, the County would return to the Conservancy for approval. Of the four projects previously authorized by the Conservancy, three have been constructed, and one has been postponed indefinitely.

The proposed authorization would enable the County to implement two new fish passage improvement projects under the Five Counties Program. The proposed projects are located at Conner Creek and Ancestor Creek, within the counties of Trinity and Mendocino, respectively, and would require the disbursement of up to $159,518 for the Conner Creek project and up to $105,495 for the Ancestor Creek project. The purpose of these projects is to improve fish passage in streams where barriers to fish passage have resulted from the inappropriate design and construction of road crossings, tidegates, or other instream structures. Historically, road crossings, culverts, and other structures were inappropriately constructed, inadvertently preventing the upstream passage of anadromous fish, such as salmon, steelhead and coastal cutthroat trout.

Like many such fish passage barrier structures, the Conner and Ancestor Creeks structures have fragmented stream habitat, and prevented fish from ascending streams due to excessive heights between culvert outlets and plunge pools below, impassably high flow velocities within the culverts themselves, or outright blockage by tidegates. Fish capable of ascending barriers are often too fatigued to spawn. Fish prevented from ascending such structures typically congregate in discharge pools or other areas below the structure, where they may fall prey to predators or poachers. Moreover, culvert failures often result in road failure, mass failure of slopes, resultant erosion, property damage, and the degradation of waters and Salmonid habitat downstream.

These and thousands of other such barriers to fish passage have been identified, and are cited in the Conservancy's report, "Inventory of Barriers to Fish Passage in California's Coastal Watersheds."

The opportunity to recover fish populations while improving local roads and infrastructure and diminishing future maintenance costs has made county governments keen participants in fish passage improvement projects. However, the ability of county governments or private entities to implement fish passage improvement projects is limited. This grant would implement two high priority fish passage improvement projects, thereby expediting the recovery of habitat for anadromous fish and other aquatic species found in coastal watersheds.

<u>Conner Creek</u>

There are two proposed fish passage improvement project sites at Conner Creek. The sites are known as Crossing #1, and Crossing #2. At Crossing #1 temporary shoring will be installed in the concrete box culvert and the concrete bottom and existing side-baffles will be excavated. A new bottom and sides will be framed and poured. A detour will not be required at this site since the road will remain open with traffic control. The new bottom of the culvert will be approximately 2.5 feet lower than the existing bottom with the sides sloping at 1:1. The finished crossing will be a 14 feet wide and 8.75 feet tall concrete box culvert with a finished grade of approximately 6%.

At Crossing #2, the existing ramp baffles will be removed and steel corner baffles will be installed in a 6 inch thick concrete lining throughout the culvert. Five outlet jump pools consisting of boulder weirs will be constructed below the outlet to back-flood the culvert. An overflow culvert 5 feet in diameter will be installed higher in the road fill to allow for increased flow capacity up to the 50 year flow.

Both Conner Creek barriers were inventoried during the Trinity County Migration Barrier Inventory, conducted between May 2001 and June 2002. The existing structure at Crossing #1 is a 6-foot high, 14-foot wide concrete box culvert that is a complete passage barrier to adult and juvenile salmonids and resident fish species. The culvert is 18-feet long set at 2.07% with three 1-foot tall offset baffles that line one-half of the culvert floor. The existing offset baffles are ineffective for improving passage and slowing flows as they are regularly clogged with debris, with all of the flow sheeting across the un-baffled section of the box culvert. Modified and improved baffles proposed for installation should improve the situation. Crossing #2 is a 10-foot diameter, 66-foot long circular steel culvert set at 3.17% grade. The culvert has ten offset, steel-ramp baffles that provide for improved adult passage (45% of migration flows), but velocity and the outlet jump preclude passage for all age classes and species of juveniles. Replacement of the existing baffles should help improve fish passage at this site.

The crossings are ranked as the 8th and 26th highest priorities in the County, and in the 5C Program area as the 10th and 26th. The 9 higher priority projects in the 5C Program area either: 1) have numerous state and/or private barriers located upstream or downstream that should be remedied prior to the County sites; or, 2) do not have a completed design. The two crossings are being proposed for simultaneous implementation because of their proximity in location which will result in reduced environmental review, permitting and construction costs. As shown with previous 5C projects, the ability to conduct environmental review and permitting for two crossings at once will better address cumulative effects and is more cost effective. A single CEQA analysis addressing effects for both crossings was completed by the California Department of Fish and Game ("DFG") and permitting fees for one application are substantially less than fees for separate projects.

Stream and habitat surveys that were conducted on Conner Creek in 1974, 1979, 1980 and 2006 noted several young of the year salmonids and resident trout as well as 1+/2+ steelhead but the "habitat is very capable of supporting steelhead and coho salmon" (pers. comm., Loren Everest, Shasta Trinity National Forest Biologist). Some of the problems facing coho in the Trinity River include degradation of spawning and winter rearing habitat, sparse spawning gravel recruitment, high summer water temperatures, lack of deep pools, migration barriers, and unscreened diversions (2004 *Recovery Strategy for California Coho Salmon*). This project will address recovery of salmon and steelhead populations by remedying two known migration barriers, an unscreened diversion, and thereby increasing spawning and rearing habitat for both coho salmon

and steelhead. Adult coho salmon generally migrate and spawn when water temperatures are cold (late fall/winter), while summer steelhead spawn, migrate and hold during periods when late summer, early fall temperatures can be lethal. Conner creek has cool-water, perennial flows, providing refugia for both steelhead and coho salmon juveniles.

There is approximately 2.5 miles of anadromous spawning and rearing habitat upstream of Crossing #1 consisting of a dense riparian zone of mixed hardwoods and conifers, numerous pools formed primarily by bedrock and boulders, and cool water temperatures, especially in late summer flows. During the design process, a habitat survey was conducted in September 2006 from Crossing #1 to approximately 7,978 feet upstream. Approximately 1,600 feet of high quality spawning substrate for coho salmon and steelhead was recorded within this reach. Numerous diversions, mostly screened, were also observed during the survey, but at 4,634' there was an unscreened diversion. The fish passage improvement projects at Conner Creek take place on existing right of ways, and therefore do not require access agreements, but in order to attempt to resolve the unscreened diversion nearby, the 5C Program will recommend to DFG that as part of this project, or on its own, DFG should work with the owner to properly screen this diversion in compliance with State law.

Ancestor Creek

This project would provide full passage to adult and juvenile coho salmon and steelhead by removing the existing culverts and replacing them with an embedded arch structure that is sized and configured to provide fish passage, as well as to convey the 100-year flows. The project will also reduce the potential for delivery of ~375 cubic yards of roadfill, currently stored in the road prism over the culverts, into the downstream reaches of Ancestor Creek and the upper Mattole River.The Ancestor Creek crossing is one the highest priorities to treat in the County and is ranked as the highest priority in the 5C Program Area due to: 1) the severity of the barrier (100% for all species and lifestages); 2) being a known historic coho and steelhead stream, and; 3) the quantity and quality of habitat upstream of the culverts. Approximately the entire length of Ancestor Creek is blocked to coho and steelhead adults and juveniles due to the existing culvert barrier on Briceland Road.

Other criteria that increase the project's priority are the existing culvert size and the fact that the upper Mattole River tributaries are vital coho salmon spawning and rearing areas. Any additional quality habitat for coho, especially summer rearing habitat for juveniles, should be made available and this project falls under the Level D, Priority 5 Coho Recovery Tasks (CM-MN-08, CM-MS-22, CM-MW-18) for the Mattole River. The southern subbasin HSA of the Mattole River Hydrologic Area , where this project is located, currently contains the best salmonid habitat in the Mattole Basin (DFG: *Coastal Watershed Program*).

Most of the area is managed for timber production or zoned rural residential, but a portion is utilized for ranching and domestic/agricultural water consumption which contributes to reduced summer flows in the sub-basin. The 2004 *Recovery Strategy for California Coho Salmon* reported that past surveys indicated the presence of coho salmon and steelhead trout throughout the southern sub-basin. It also states that this sub-basin supports coho salmon in more tributaries than the other Mattole River sub-basins. The identified problems for coho recovery in all sub-basins of the Mattole River include, but are not limited to, high instream sediment levels, low-flow conditions, lack of habitat complexity such as deep pools, and excessive water

temperatures. With the exception of the de-watered channels and low flows in the summer, the southern sub-basin currently contains the best salmonid habitat in the Mattole Basin (Coastal Watershed Program).

The crossing was inventoried during the Mendocino County Migration Barrier Inventory, conducted between August 1998 and December 2000 by Ross Taylor & Associates. FishXing analysis predicted the main culvert (7-foot wide, 40-foot long at 3.85% slope) to be a complete barrier to adult coho salmon and steelhead and all age classes of juveniles during 100% of migration flows. There is a 3-foot diameter culvert located higher in the fill that acts as an emergency overflow. The barrier status is primarily due to excessive outlet leap at all migration flows for adults, and lack of depth for both age classes as well as the deteriorated condition of the culvert. Approximately 10,800 feet of good-quality spawning and rearing habitat consisting of a dense riparian zone of conifers and hardwoods with numerous pools and ample areas of spawning-sized gravels will be made available with this project. Ancestor Creek also hosts cool-water temperatures during the late-summer while other Mattole River tributaries either have low or no flow, making this stream prime coho and steelhead refugia. It is one of twenty tributaries of the Mattole River headwaters where Sanctuary Forest has been working to restore habitat for salmonids as part of the Upper Mattole Watershed Rehabilitation Project.

This project addresses several of the threats and recovery actions for both the Southern Oregon and Northern California Coho (SONCC) and Northern California steelhead Evolutionarily Significant Units (ESUs) by removing one of the highest priority migration barriers in the 5C Program area. The project will allow for full passage during migration flows for spawning adults, and will also allow access to good quality rearing habitat for juveniles during low summer flows in the main-stem Mattole River.

Site Description:

Conner Creek is a tributary to the Trinity River, located near Junction City in Trinity County. The Trinity River is the main tributary to the Klamath River, California's second largest coastal-draining watershed. The land use immediately surrounding the project area is rural residential, with the upper 90% of the watershed being managed by the Shasta-Trinity National Forest (STNF). Approximately 80% of the watershed is roadless area. Although nineteenth century mining of the Trinity River heavily disturbed the confluence and the first 1,000' of the creek, investigations of the mouth area and reports from local biologists have determined that during migration flows, both coho salmon and steelhead are able to gain access to Conner Creek.

Ancestor Creek is a headwater tributary to the Mattole River on Briceland Road (Mendocino County Road #435) in Mendocino County. The Mattole River enters the Pacific Ocean along the Lost Coast, approximately 30 miles south of Ferndale, in Humboldt County. The barrier site is located at milepost 3.75, approximately 500 feet upstream of the confluence with the Mattole River. The community of 'Four Corners' is located approximately 0.6 miles from the project site (refer to Attachment 1 for a detailed map).

Although, both projects are located outside of the coastal zone, the projects will enhance a coastal watershed that hosts important coastal salmon populations. See "Project Summary," above, and see Exhibit 1.

Project History: The history of the Five Counties Salmonid Conservation Program ("5C Program"), of which the proposed projects are a part, was described in detail in the March 2, 2006 staff recommendation (see Exhibit 2).

The design for these projects was completed in 2006 through a Coastal Conservancy design grant (Agreement No. 03-051) that allowed for completion of the following project tasks:

- Topographic and thalweg surveying of both crossings
- Watershed hydrology analysis
- HEC-RAS & FishXing analysis of retrofits and replacement options
- Design Report for retrofit and replacement alternatives and Recommendations
- Draft construction budgets

Completion of this information enabled the Five Counties Program to secure significant match for implementation of these high priority fish passage improvement projects.

PROJECT FINANCING:

<u>Total for Five Counties Salmonid Program</u>	
Coastal Conservancy *(prior authorization)*	$700,000
Total	**$700,000**
<u>Conner Creek Project</u>	
Coastal Conservancy (*from prior authorization*)	$159,518
California Department of Fish and Game	$120,068
United States Fish and Wildlife Service	$28,000
Trinity County	$10,000
Total Project Cost for Conner Creek:	**$317,586**
<u>Ancestor Creek Project</u>	
Coastal Conservancy (*from prior authorization*)	$105,495
California Department of Fish and Game	$258,675
Mendocino County	$33,145
National Association of Counties	$100,000
Total Project Cost for Ancestor Creek:	**$497,315**

The expected source of Conservancy funds for the Conner Creek and Ancestor Creek implementation projects, $159,518 and $105,495, respectively, is the Conservancy's fiscal year 05/06 appropriation from the California Clean Water, Clean Air, Safe Neighborhood Parks and Coastal Protection Act of 2002 (Proposition 40). Since the previously authorized Ryan Creek project was not implemented due to continuing negotiations with CalTrans, sufficient funds remain from the original authorization for the Conner and Ancestor Creek projects. As

discussed in detail in the March 2, 2006 staff recommendation, these projects are consistent with this funding source because they will improve hydraulic connectivity and habitat quality in coastal watersheds, thereby improving coastal salmon populations, in accordance with Division 21 of the Public Resources Code.

The County will ensure the provision of adequate matching funds and in-kind contributions to ensure project completion at both sites.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

The proposed projects are undertaken pursuant to Chapter 5.5 and Chapter 6 of Division 21 of the Public Resources Code (Sections 31220 and 31251-31270). For the reasons specified in the March 2, 2006 staff recommendation (Exhibit 2), the projects are consistent with the purposes and criteria of these Chapters. In addition, as required by Section 31220(c), the projects include as a condition of funding the requirement that there be a post-implementation monitoring plan approved by the Conservancy that will evaluate the success of the project. Further, as required by Section 31220(a), the Conservancy has consulted with the State Water Resources Control Board to ensure consistency of the proposed projects with Chapter 3 of Division 20.4 of the Public Resources Code.

CONSISTENCY WITH CONSERVANCY'S STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):

Consistent with **Goal 6 Objective D** of the Conservancy's Strategic Plan, the proposed authorization will implement projects that improve habitat for anadromous fish through the removal of existing barriers to fish passage, and will open 4.55 miles of currently inaccessible habitat.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA & GUIDELINES:

The original authorization of funds for fish passage improvement projects was found to be consistent with the Conservancy's Project Selection Criteria and Guidelines adopted January 24, 2001 (as described in the March 2, 2006 staff recommendation, Exhibit 2). Those criteria and guidelines were updated on September 20, 2007. For all relevant aspects, the currently proposed projects are consistent with the Project Selection Criteria and Guidelines updated on September 20, 2007.

CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:

The Conner Creek and Ancestor Creek projects are both located outside of the Coastal Zone boundary, but drain to Humboldt County waters in both instances. Both are consistent with the Humboldt Local Coastal Program, as well as the Del Norte and Mendocino Local Coastal Programs, for the reasons specified in the March 2, 2006 staff recommendation (Exhibit 2).

COMPLIANCE WITH CEQA:

The California Department of Fish and Game ("DFG") administers the Fishery Restoration Grants Program ("FRGP"). Applications to this program are received and reviewed on an annual cycle. In order to simplify the administrative burden of conducting CEQA review, environmental compliance, and permitting for each individual project, the DFG annually conducts an initial study and adopts a Mitigated Negative Declaration ("MND") for all projects receiving funding under the FRGP. Conservancy staff receives and independently reviews these programmatic MNDs for projects receiving any combination of DFG and Conservancy funds. DFG is the lead agency for CEQA with respect to these projects, and the Conservancy is a responsible agency.

The MND divides habitat restoration projects into three categories: major action items, minor action items, and CEQA exempt items. The Restoration Program for 2008 funded in whole or in part 113 habitat restoration action items (68 major, 3 minor, and 42 exempt items) in the fourteen identified counties for the MND. Major action items are typically projects that involve earth-moving equipment near waterways, and that pose a higher risk of adverse effects on the environment, such as erosion of soil, fuel spills, and so forth. The 68 major action items, which are discussed in detail in the environmental analysis of the MND, include all fish barrier removal projects. Thus, Conner and Ancestor Creek fish barrier removal projects were among those analyzed in the MND as major actions items. DFG adopted the MND for FRGP projects and filed its Notice of Determination on June 9, 2008 (Exhibit 4). No comments were received during the comment period.

For all major action items assessed in the MND, including the Conner and Ancestor Creek projects, DFG found that the projects cause minor short-term impacts on soil, vegetation, wildlife, water quality, and aquatic life, that can be mitigated to *less-than-significant level* as identified in the MND. These mitigation and measures are listed in the Mitigation Monitoring and Reporting Program ("MMRP", Exhibit 5) attached as Appendix B to the MND. Staff has reviewed the MND and the accompanying MMRP and concurs with this finding.

Because these projects involve construction activities within the stream channel, Conservancy staff shares DFG's heightened concerns about impacts to listed salmonids. Such impacts include increased instream turbidity levels, fuel spills, and direct harm to individual species located within or surrounding the construction area. Thus, each project must meet a variety of standards, and adhere to various conditions that ensure full mitigation of potential adverse impacts. Certain measures apply generally to all "major action items" listed under the MND, while other measures are imposed as a result of site specific considerations, such as the presence of certain species. These standards and conditions are described in the MMRP, and are summarized below:

Biological Resources

General Measures for Protection of Biological Resources

The permissible work period will be limited to June 15 through November 1, or the first rainfall in order to protect aquatic habitat and associated species and to avoid nesting or breeding seasons of birds and other terrestrial animals. This period is further restricted to avoid nesting or breeding of raptors: if Northern Spotted Owls are present work must begin after July 31 and if nesting marbled murrelets are present work must begin after September 15. Other precautionary measures include exclusion of swallows and removal of trash from the work area. Any red tree vole nests encountered at a work site will be flagged and avoided during construction. For any work sites containing western pond turtles, salamander, foothill yellow-legged frogs or tailed frogs, appropriate exclusion and relocation measures must be used

Revegetation shall make use of appropriate native plants. Planting techniques can include seed casting, hydroseeding, or live planting methods using the techniques in Part XI of the *California Salmonid Stream Habitat Restoration Manual*. 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.

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 County shall prepare 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.

The grantee shall 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 practicable, invasive exotic plants at the work site shall be removed.

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.

Any equipment work within the stream channel shall be performed in isolation from the flowing stream.

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.

If any non-special status wildlife are encountered during the course of construction, the 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 section 15380 in Title 14 of the California Code of Regulations, also known as the “CEQA Guidelines”.

All habitat improvements shall be done in accordance with techniques in the *California Salmonid Stream Habitat Restoration Manual*.

<u>Specific Measures for Endangered, Rare, or Threatened Species - Coho Salmon, Chinook Salmon, Steelhead, and Coast Cutthroat Trout</u>

“Major action item” fish passage projects listed in Appendix A invoke mitigation measures required for salmonids (MND, App. B, pp.B-7). These mitigation measures include: 1) limiting project work to the period between June 15 and November 1, or the first significant fall rainfall; 2) where appropriate, limiting the use of heavy equipment in the stream, diverting stream flow, capturing sediment, installing fish screens; 3) reconstructing and revegetating stream banks; 4) minimizing stream dewatering; 5) All electrofishing for removal of listed salmonids from the project site shall be performed by a qualified fisheries biologist and conducted according to the National Marine Fisheries Service *Guidelines for Electrofishing Waters Containing Salmonids Listed Under the Endangered Species Act*, June 2000; and 5) discontinuing work if impacts cannot be mitigated.

The Conner and Ancestor Creek projects are not listed in Appendix B as projects that will have specific impacts to any other listed species and thus additional specific mitigation measures are

not required.

Survey / Interim Report

Prior to initiating ground disturbing activity a specific project site, DFG sends a surveyor to assess whether any sensitive species or habitat are present at the site. Interim reports were prepared for Ancestor and Conner creeks indicating that no sensitive species or habitat was encountered during the field surveys of these sites (Exhibit 6).

Rare Plants

Past experience with FRGP and Conservancy-funded projects from previous years has shown that the potential for adverse impacts on rare plants at salmonid restoration work sites is very low. In order to avoid impacts to rare plants, DFG requires that a field survey be conducted prior to initiation of any ground disturbing activities. The Interim Reports prepared by DFG for these two sites indicate that no rare plants were encountered during the field survey (Exhibit 6).

Cultural Resources

Ground-disturbance that has the potential to affect cultural resources will be required to implement the projects at some work sites. These potential impacts will be avoided through implementation of a complete cultural and paleontological resource survey at appropriate sites, adopting measures to avoid such resources, reporting any previously unknown remains to the U.S. Army Corps of Engineers as required in the Regional General Permit, and adhering to appropriate and defined measures as defined in the MMRP when remains are inadvertently discovered.

Geology And Soils

The MND found that there is no potential for a significant adverse impact to geology and soils; implementation of the projects will contribute to an overall reduction in erosion and sedimentation. In order to avoid temporary increases in surface erosion, the County will ensure that designs are reviewed and authorized by NMFS or DFG engineers, that the project passes all life stages of salmonids**,** that effective erosion control measures, as described above, are in place before during and after project completion.

Hazards And Hazardous Materials

The MND finds that the projects 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 provision of dependable communication equipment to report spills, and appropriate staging and use of heavy equipment so as to avoid spills.

Hydrology And Water Quality

In order to avoid adverse impacts to water quality, the field season is limited to the low flow period, as described above. Work is also performed in isolation from flowing water, and turbidity control measures are in place.

Transportation/Traffic

During excavation for culvert replacement, the County shall provide a route for traffic around or through the construction site to provide access for emergency vehicles.

Conservancy staff has independently reviewed the relevant portions of DFG's MND and MMRP for the proposed Conner and Ancestor Creek projects and recommends that the Conservancy, as a responsible agency under CEQA, find that there is no substantial evidence that the projects to be funded by the Conservancy, as mitigated, will have a significant effect on the environment as defined under 14 California Code of Regulations Section 15382.

Upon Conservancy approval, staff will file a Notice of Determination for the Conner and Ancestor Creek projects.