

COASTAL CONSERVANCY

Staff Recommendation
October 5, 2006

NAVARRO WATERSHED RESTORATION PLAN IMPLEMENTATION, PHASE V

File No. 98-055-06
Project Manager: Moira McEnespy

RECOMMENDED ACTION: Authorization to disburse up to \$172,000 to the Mendocino County Resource Conservation District to conduct Mill Creek upslope road sediment reduction and Navarro River watershed monitoring activities, and to implement a watershed awareness signing program, all of which will further implement the *Navarro Watershed Restoration Plan*.

LOCATION: Navarro River watershed, Mendocino County.

PROGRAM CATEGORY: Integrated Coastal and Marine Resources Protection

EXHIBITS

Exhibit 1: Project Location Map

Exhibit 2: Project Sites Map

Exhibit 3: (a) California Department of Fish and Game Mitigated
Negative Declaration for the 2004 Fisheries Restoration Grant
Program

(b) Notice of Determination

(c) Statement of Work

(d) CDFG Natural Diversity Database excerpt

(e) Mitigation Measures, Monitoring and Reporting Program

Exhibit 4: Letters of Support

RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31000 *et seq.* of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes the disbursement of an amount not to exceed \$172,000 (one hundred seventy-two thousand dollars) to the Mendocino County Resource Conservation District to conduct Mill Creek upslope road sediment reduction and Navarro River watershed monitoring activities, and to implement a watershed awareness signing program, all of

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which will further implement the *Navarro Watershed Restoration Plan (approved by the Conservancy on August 6, 1999)*, subject to the following conditions:

1. Prior to the disbursement of any funds, the Executive Officer of the Conservancy shall approve in writing a work plan, budget and schedule, any contractors or subcontractors to be employed in these tasks, and a signing plan that acknowledges Conservancy funding.
2. The grantee shall implement the applicable requirements of the Negative Declaration and its Mitigation Measures, Monitoring and Reporting Program (attached as Exhibit 3 to the accompanying staff recommendation) adopted on July 7, 2004 by the California Department of Fish and Game for the 2004 Fisheries Restoration Grant Program.
3. The grantee shall submit for approval by the Executive Officer proof of appropriate permits and access agreements sufficient to implement all on-the-ground tasks.”

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 Chapter 5.5 of Division 21 of the Public Resources Code (Section 31220) regarding Integrated Coastal and Marine Resources Protection.
2. The proposed project is consistent with the Project Selection Criteria and Guidelines adopted by the Conservancy on January 24, 2001.
3. The Conservancy has independently reviewed the Mitigated Negative Declaration prepared and adopted by the California Department of Fish and Game (“CDFG”) on July 7, 2004, attached to the accompanying staff recommendation as Exhibit 3, and concurs 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.
4. There is no evidence before the Conservancy that the project will have a potentially adverse effect, either individually or cumulatively, on wildlife resources as defined under California Fish and Game Code Section 711.2.
5. The Conservancy has on the basis of substantial evidence rebutted the presumption of adverse effect contained in 14 California Code of Regulations Section 753.5(d) regarding the potential for adverse effect on wildlife resources as defined under California Fish and Game Code Section 711.2.”

PROJECT SUMMARY:

Staff recommends that the Conservancy authorize disbursement of up to \$172,000 to the Mendocino County Resource Conservation District (“MCRCD”) to conduct Mill Creek upslope road sediment reduction and Navarro River watershed monitoring activities, and to implement a watershed awareness signing program, all of which will further implement the *Navarro Watershed Restoration Plan* (jointly published by the Anderson Valley Land Trust (“AVLT”), the Mendocino County Water Agency (“MCWA”) and the Conservancy in June 1998, with funding from the Conservancy and the North Coast Regional Water Quality Control Board (“RWQCB”); adopted by the Conservancy on August 6, 1999).

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The *Navarro Watershed Restoration Plan* has served as the guiding document to implement restoration projects in the Navarro basin since 1999. Now in its fifth season, the Navarro Watershed Restoration Program has approximately three million dollars in the funding pipeline, and is seeking matching Conservancy funds to conduct three additional restoration projects.

The Mill Creek upslope road sediment reduction project is being conducted in the lower Navarro River sub-watershed (see Exhibit 2). This project will reduce road-related erosion, which the *Navarro Watershed Restoration Plan* identifies as a priority restoration action in the mainstem Navarro drainage basin, which contains Mill Creek. This project will upgrade approximately 26 sites along approximately six miles of the Holmes Ranch Road system, which includes approximately 32,000 feet of road segments and 10 stream crossings, to prevent 18,164 cubic yards of sediment from entering the river system. Specifically, the project will:

- Install or replace at least five culverts with those sized for 100-year storm events to allow fish passage; clean at least one culvert and clean and/or treat at least four inlets/outlets; excavate at least one stream crossing, and treat perched fills; minimize diversion and erosion potential at culverts and stream crossings; and install critical dips at crossings.
- Outslope road and remove outboard berm, fill in-board ditch, install rolling and critical dips, and/or rock road surfaces along approximately 32,000 feet of road.
- Develop a final report that can be used to develop proposals for further implementation projects.

These road segments have been assessed by Pacific Watershed Associates (“PWA”) as areas of particular concern due to the amount of sediment they deliver annually into the Mill Creek system. This project will implement the PWA Mill Creek Roads Assessment, funded by the California Department of Fish and Game (“CDFG”), continue road upgrades that were recommended in the *Navarro Watershed Restoration Plan (1998)* and previously funded through CDFG, and implement CDFG’s *Recovery Strategy for California Coho Salmon* high priority tasks MC-HU-11 (treat existing upslope sediment sources to improve pool frequency and depth) and MC-HU-22 (develop erosion control projects). The MCRCD started work with CDFG funding in June 2005 and anticipates completing work by June 2007.

The Navarro River watershed winter monitoring program, Phase II, will be conducted on three tributaries also located in the lower Navarro River sub-watershed (see Exhibit 2): North Fork Navarro at Highway 128, Flynn Creek at Highway 128, and Mill Creek at Nash-Mill Bridge. This project will continue for two more winters (winter 06/07 and winter 07/08) a restoration effectiveness-monitoring program developed by the Mendocino County Water Agency (“MCWA”) and UC Davis, with Conservancy and MCWA funding. The program covered most of the first winter (2004-2005) and all of the second winter (2005-2006), and will end in Spring 2006 unless additionally funded. Specifically, the program will:

- Measure flows at the three stations during up to 10 storm events.
- Collect water samples to measure turbidity, suspended sediment concentration, and bedload sediment.
- Develop rating curves for each station, analyzing and graphing data; contract with USGS to run bedload sediment samples, and with UC Davis to analyze bedload sediment.
- Conduct up to four spawning surveys in each stream each winter.

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- Prepare a Final Report.

The monitoring program is necessary to ensure implementation projects identified in the *Navarro Watershed Restoration Plan* are having the desired effects of improving water quality and increasing fish populations.

The Navarro River watershed awareness signing program seeks to promote watershed awareness by designing and installing public roadway and other signs to indicate watershed boundaries (approximately 18 signs) and potentially hazardous river/beach conditions (two signs). Consistent with the “Education and Public Information” section of the *Navarro Watershed Restoration Plan*, the signing program will help residents and visitors become more aware of and conversant in Navarro watershed concepts and issues. The MCRCD will work collaboratively with the local Navarro watershed group, and MCWA, County, Caltrans and Conservancy staff to implement the program.

Site Description: The Navarro River and its major tributaries, Rancheria, Indian, and Anderson Creeks, drain the largest watershed located completely in Mendocino County (an area of 315 square miles), and the Navarro River itself empties into the Mendocino Coast State Seashore. The Navarro River supports a largely rural economy. Timber harvest, grazing and other agricultural activities have been ongoing in the watershed since the mid-1800s; more recently, orchards, vineyards and tourism have joined the primary economic activities. The watershed is under increasing development pressure as it becomes included in the “greater Bay Area” and as vineyard expansion in the watershed increases. Accordingly, pressure on water supplies and water quality, as well as on the remaining fish habitat, is also increasing as more land is brought into production or developed.

The Navarro River is listed by the State Water Resources Control Board as having impaired and/or threat of impaired water quality by sediment and/or temperature in accordance with Section 303(d) of the federal Clean Water Act. The river supports a much-reduced population of coho salmon, a federally listed species, as well as steelhead, which are threatened in many of northern California’s watersheds.

Project History: The Conservancy assisted the AVLT and MCWA to develop the *Navarro Watershed Restoration Plan*, and has granted over \$1.2 million to the MCRCD to implement the plan over the last 12 years. Implementation projects have included culvert replacements and erosion/sediment control (Little Mill Creek, Dago Creek), road assessments (Indian Creek, Rancheria Creek, Hendy Woods), bank stabilization and native vegetation replanting (Indian Creek, Anderson Creek, Robinson Creek, Upper Rancheria Creek), invasive vegetation removal (Rancheria Creek sub-watershed), monitoring (lower Navarro sub-watershed), development of workshops and educational materials for landowner education and outreach, testing of a resource center pilot project, and development of a coordinated permit. The proposed projects will continue to implement the *Navarro Watershed Restoration Plan*. Specifically, the Mill Creek upslope road sediment reduction project will reduce road-related erosion, which the *Navarro Watershed Restoration Plan* identifies as a priority restoration action in the mainstem Navarro drainage basin, which contains Mill Creek; the monitoring program is necessary to ensure implementation projects identified in the *Navarro Watershed Restoration Plan* are having the desired effects of improving water quality and increasing fish populations; and the signing program will help residents and visitors become more aware of and conversant in Navarro

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watershed concepts and issues, consistent with the “Education and Public Information” section of the *Navarro Watershed Restoration Plan*.

PROJECT FINANCING:

<i>Source</i>	<i>Mill Creek Sediment Reduction</i>	<i>Watershed Monitoring</i>	<i>Watershed Awareness Sign Program</i>	<i>Total</i>
Coastal Conservancy	35,400	106,600	30,000	172,000
CDFG	173,259			173,259
Holmes Ranch Road Assn.	31,000			31,000
MCWA (in-kind)		17,400	1,000	18,400
Navarro Watershed Working Group (in-kind)			1,000	1,000
Total Project Cost	239,659	124,000	32,000	395,659

The proposed source of Conservancy funds for this authorization is an appropriation to the Conservancy from Proposition 40, “The California Clean Water, Clean Air, Safe Neighborhood Parks and Coastal Protection Act of 2002.” These funds are available for grants to public agencies and nonprofit organizations for restoration and associated planning, permitting and administrative costs, for the protection and restoration of coastal watershed and streams, and were specifically appropriated for the purpose of funding coastal watershed protection projects under Section 31220 of the Public Resources Code.

The proposed project is consistent with Public Resources Code Section 31220, as discussed in the “Consistency with Conservancy’s enabling legislation” section of this report, below, and with applicable watershed management and water quality control plans, as discussed in the “Consistency With Local Watershed Management Plan/State Water Quality Control Plan” section of this report, below. The proposed authorization is thus consistent with Proposition 40.

CONSISTENCY WITH CONSERVANCY’S ENABLING LEGISLATION:

The proposed project is consistent with Chapter 5.5 of the Conservancy’s enabling legislation (Division 21 of the Public Resources Code, Section 31220) regarding integrated coastal and marine resources protection in the following respects:

Section 31220(a) authorizes the Conservancy to award grants for sediment management and for coastal watershed, habitat and water quality protection and restoration. Consistent with this section, the Conservancy proposes to award a grant to the MCRCDD to prevent and/or reduce upslope road sediment from reaching waters in the lower Navarro River sub-watershed, particularly Mill Creek, collect and analyze data to determine the effectiveness of restoration activities, and promote public watershed awareness, thus managing sediment and protecting water quality and habitat within a coastal watershed.

Consistent with subsection 31220(b)(1), the proposed project will prevent and/or reduce contamination of waters within the coastal zone, most notably sediment for which the Navarro River is listed by the State Water Resources Control Board (“SWRCB”) as impaired. Consistent with subsection (b)(2), the proposed project will protect fish (namely coho and other salmonids) and wildlife habitat within a coastal watershed by preventing and/or reducing sedimentation of

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coastal streams from existing upslope roads, collecting and analyzing data that will help determine the effectiveness of watershed restoration projects, and promoting public watershed awareness. Consistent with subsection (b)(3), the proposed project will reduce threats to coastal and marine fish (again, coho and other salmonids) and wildlife, largely through preventing and/or reducing sediment loads from existing upslope roads to streams in a coastal watershed. Consistent with subsection (b)(4), the proposed project will reduce and even prevent unnatural erosion and sedimentation of a coastal watershed by upgrading 6.0 miles of existing upslope roads.

In accordance with Subsection 31220(c), the proposed project is consistent with the Integrated Watershed Management Program established under Public Resources Code Section 30947, local watershed management plans, and water quality control plans adopted by the SWRCB. Please see the discussion in the “Consistency with local watershed management plan/state water quality control plan” section of this report, below. Also in accordance with Section 31220(c), the proposed project will consist of (via the Navarro River watershed winter monitoring component) or contain (the Mill Creek upslope road sediment reduction component) a monitoring and evaluation component (random project evaluations conducted by the CDFG). Conservancy staff is also consulting with the State Water Resources Control Board to ensure consistency with Chapter 3 (commencing with Section 30915) of Division 20.4 of the Public Resources Code.

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

Consistent with **Goal 5 Objective A** and **Goal 6 Objectives A and B**, the proposed project will preserve and enhance stream corridors, preserve and restore a coastal watershed, and improve water quality by preventing sediment loading to streams from existing road networks, monitoring restoration effectiveness in the lower Navarro River sub-watershed, and promoting public watershed awareness.

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

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines adopted January 24, 2001, 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:** The proposed project is supported by the public. See letters of support from State Senator Wesley Chesbro and Assemblymember Patty Berg, among others, in Exhibit 4.
4. **Location:** Although the proposed project is not located within the coastal zone, it will prevent or reduce sediment from entering streams in a coastal watershed that empties into the Mendocino Coast State Seashore, collect and analyze data to make determinations about the

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effectiveness of restoration projects conducted in a coastal watershed, and promote public awareness about a coastal watershed.

5. **Need:** Although the proposed Mill Creek sediment reduction project has matching State and private funds, it will not be completed at its planned level absent Conservancy participation. Similarly, the Navarro watershed monitoring project will not occur at all absent Conservancy funds, as it only has dedicated in-kind services from MCWA; thus, absent Conservancy funds, the benefit of continued monitoring data (e.g., demonstration of trends, adequate data to make findings about the effectiveness of restoration practices) will be lost. Finally, the watershed awareness signing program has only the commitment of in-kind work by the local watershed group.
6. **Greater-than-local interest:** The Navarro River is a significant north coast stream. It has the largest watershed entirely in Mendocino County, and supports listed species such as coho salmon and steelhead.

Additional Criteria

7. **Urgency:** The current Navarro watershed monitoring will end Spring 2006 absent further Conservancy participation, thus rendering two years' monitoring data less useful, and lapsing on the collection of data necessary to show trends and make findings about the effectiveness of restoration practices.
12. **Readiness:** The MCRCD has already begun the Mill Creek sediment reduction work with matching funds, and is poised to continue the ongoing Navarro watershed monitoring work this upcoming winter.
13. **Realization of prior Conservancy goals:** See "Project History" section, above.

CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:

The Conservancy found the *Navarro Watershed Restoration Plan*, which describes actions that can be taken throughout the watershed to benefit coastal resources, consistent with the Mendocino County Local Coastal Program (certified by the Coastal Commission on September 10, 1992) when it adopted the Plan in August of 1999. The activities proposed in this staff recommendation will continue implementation of the Plan, and will thus be consistent with the certified Local Coastal Program.

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

Under Public Resources Code Section 31220 (c), projects funded under Chapter 5.5 of Division 21, the Conservancy's enabling legislation, must be consistent with the Integrated Watershed Management Program established pursuant to Public Resources Code Section 30947 and local watershed management plans, "if available and relevant to the project." The proposed project is consistent with relevant plans and programs, as described below.

Applicable Regional Water Quality Control Plan. Mandated by both the Federal Clean Water Act and the State Porter-Cologne Water Quality Act, water quality control plans (basin plans) designate beneficial uses of water bodies and identify water quality objectives to ensure reasonable protection of beneficial uses. The beneficial uses, water quality objectives and anti-

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degradation policies, together, constitute water quality standards. In 1988, the North Coast Regional Water Quality Control Board (RWQCB) synthesized a single *Water Quality Control Plan for the North Coast Region (Basin Plan)*. This Basin Plan is the applicable regional water quality control plan pursuant to Proposition 50.

Section 303(d) of the Clean Water Act requires states to identify waters that do not meet applicable water quality standards that are largely contained in the Basin Plans. The Navarro River is on the section 303(d) list due to impairment and/or threat of impairment to water quality by sediment and temperature. The U.S. Environmental Protection Agency (EPA) established a TMDL (action plan called “total maximum daily load”) for the Navarro River to address sediment and temperature impairments in December 2000, and it was included in the TMDL Implementation Policy for Sediment Impaired Receiving Waters in the North Coast Region (TMDL Implementation Policy, adopted in lieu of amending the Basin Plan to add TMDL implementation strategies) adopted by the RWQCB in November 2004 to address all sediment-impaired water bodies in the North Coast region.

The TMDL Implementation Policy resolves to “enhance non-regulatory actions with organizations and individuals to encourage sediment waste discharge control, watershed restoration and protection activities” (Resolution 1F) and “strongly encourages all landowners within the North Coast Region that are currently discharging or threatening to discharge sediment waste to work to control discharges” (Resolution 2). In the proposed project, the MCRCDC will work with landowners to prevent and/or reduce sedimentation of coastal streams from existing upslope roads, will collect and analyze data that will help determine the effectiveness of watershed restoration projects, and will promote public watershed awareness. The proposed project is thus consistent with the TMDL Implementation Policy and the Basin Plan.

Integrated Watershed Management Program established pursuant to PRC Section 30947. The *North Coast Integrated Regional Water Management Plan, Phase I (NCIRWMP)*, prepared by *Circuit Rider Productions, July 2005*) was developed pursuant to Public Resources Code Section 30947 (but is not intended to be adopted by the RWQCB). The NCIRWMP identifies six primary integrated water management objectives for the North Coast region, relevant at both the local and regional scale, of which the following two apply to the proposed project: (1) “Conserve and enhance native salmonid populations by protecting and restoring required habitats, water quality and watershed processes;” and (2) “Support implementation of TMDLs, the North Coast RWQCB’s Watershed Management Initiative (WMI) and the Nonpoint Source Program Plan.” As discussed immediately below, the proposed project is consistent with applicable objectives of the NCIRWMP, and thus with the Integrated Watershed Management Program.

Conservation and Enhancement of Native Salmonid Populations. The proposed project will significantly prevent and/or reduce sedimentation of coastal streams from existing upslope roads, collect and analyze data that will help determine the effectiveness of watershed restoration projects, and promote public watershed awareness, all of which will enhance native salmonid habitat.

Support Implementation of TMDLs. As discussed under the “Applicable Regional Water Quality Control Plan,” above, the proposed project supports the TMDL Implementation Policy.

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Support the North Coast RWQCB Watershed Management Initiative. A key component of the SWRCB's and the nine RWQCB's 2001 Strategic Plan¹ is a watershed management approach. The Watershed Management Initiative (WMI) is intended to support the Strategic Plan to address the Strategic Plan goal that surface waters be safe to support healthy ecosystems and other beneficial uses. The North Coast RWQCB has developed a *WMI Chapter (February 2005)*, a document that identifies regional watersheds, prioritizes water quality issues, and develops watershed management strategies. The WMI Chapter is strictly a regional planning document; it is not intended to be adopted by the RWQCB, nor is it a regulatory document. Among the highest-priority activities identified in the WMI Chapter are increasing emphasis on nonpoint source pollution issues (including roads), especially as they affect salmonid resources, and developing and implementing TMDL strategies (mostly sediment and temperature associated with salmonid resource declines). Furthermore, the section on the Navarro River watershed specifically references the *Navarro Watershed Restoration Plan* in its implementation strategy. The proposed project further implements the *Navarro Watershed Restoration Plan* and consists of preventing and/or reducing sedimentation of coastal streams from existing upslope roads, collecting and analyzing data that will help determine the effectiveness of watershed restoration projects, and promoting public watershed awareness. The proposed project will thus be consistent with the WMI, specifically the North Coast Chapter.

Support the California Nonpoint Source Pollution Control Program. The Plan for California's Nonpoint Source Pollution Control Program (NPS Program Plan) provides a single, unified, coordinated statewide approach to dealing with NPS pollution. The *Plan for California's Nonpoint Source Pollution Control Program (SWRCB and California Coastal Commission (CCC), January 2000)* and the *Five-Year Implementation Plan for July 2003 through June 2008 (SWRCB and CCC in coordination with the Nonpoint Source Interagency Coordination Committee, December 2003)* establish nonpoint source program management measures to be implemented or required by the various State agencies. The "transportation development" management measure applies to existing roads that contribute to adverse effects in surface waters, such as generating significant erosion and sediment loads that threaten the quality of surface waters and their tributaries. The proposed project will prevent and/or reduce sedimentation of coastal streams from existing upslope roads, and is thus consistent with the California Nonpoint Source Pollution Control Program.

Local Watershed Management Plans. The *Navarro Watershed Restoration Plan* has served as the guiding document to implement restoration projects in the Navarro basin since 1999. In the proposed project, the MCRCD will further implement the plan by preventing and/or reducing sedimentation of coastal streams from existing upslope roads, collecting and analyzing data that will help determine the effectiveness of watershed restoration projects, and promoting public watershed awareness. The proposed project is thus consistent with this local watershed management plan.

¹ The Strategic Plan is a continuing agency-wide planning process that articulates the goals, strategies, objectives, and performance measures used to guide ongoing decision-making and help ensure that the mission of the State and Regional Boards is accomplished.

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COMPLIANCE WITH CEQA:

The proposed project consists of a data collection and analysis component, a watershed awareness sign program component, and an upslope road sediment prevention and/or reduction component.

The on-the-ground actions associated with the data collection and analysis component consist of measuring stream flows, collecting water samples and conducting fish spawning surveys. These actions constitute basic data collection, research and resource evaluation activities that do not result in a serious or major disturbance to an environmental resource, and thus qualify for a Class 6 (Title 14, Section 15306) categorical exemption from the California Environmental Quality Act (“CEQA”).

The on-the-ground actions of the watershed awareness sign program component consist of posting signs within public road rights-of-way and other locations. These actions constitute placement of minor structures (signs) accessory to existing facilities (e.g., public roadways, public beaches), and thus qualify for a Class 11 (Title 14, Section 15311) categorical exemption from CEQA.

The upslope road sediment prevention and/or reduction component is included as the “Mill Creek Upslope Road Sediment Reduction Project” in the Mitigated Negative Declaration (“MND”) developed and adopted on July 7, 2004 by the CDFG for projects funded through the FY2004-05 Fisheries Restoration Grant Program (Exhibit 3a). The CDFG found that although the funded projects, including the Mill Creek Upslope Road Sediment Reduction Project that constitutes this proposed project, may have the potential to cause minor short-term impacts on soil, vegetation, wildlife, water quality and aquatic life, the measures that will be incorporated into the projects will lessen such impacts to below a level of significance under CEQA (Exhibit 3a). The CDFG signed a Notice of Determination on July 7, 2004 (Exhibit 3b).

The Statement of Work prepared by the CDFG for the Mill Creek Upslope Road Sediment Reduction Project (Exhibit 3c) defines the project as site-specific erosion control measures to remediate approximately 18,164 cubic yards of potential sediment delivery to streams inhabited by anadromous salmonids. Remediation work will include sediment control upgrades at approximately 26 sites along approximately six miles of road where future sediment delivery has been found likely to occur. Treatment sites will include 10 stream crossings. Sediment remediation work will include culvert installation, culvert replacement at five sites, downspout installation at three sites, culvert cleaning at one site, flared inlet installation at one site, soil excavation at one site, rolling dip installation, wet crossing installation, critical dip installation at six sites, road berm removal, road outslipping, and rocking of road surfaces.

The MND addresses all of the anticipated environmental effects of the funded projects by providing mitigation measures for the various types of projects that would be implemented throughout the State. These measures include use of accepted protocols for avoiding impacts to species of concern known to occur in the general vicinity of the project. The list of State- and Federally-listed threatened and endangered species of concern for the Mill Creek Upslope Road Sediment Reduction Project were generated from the CDFG’s Natural Diversity Database (Exhibit 3d). The project will incorporate measures specified in the Mitigation Measures, Monitoring and Reporting Program, attached to the MND as Appendix B (Exhibit 3e), which contains general mitigation measures for the protection of biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, and

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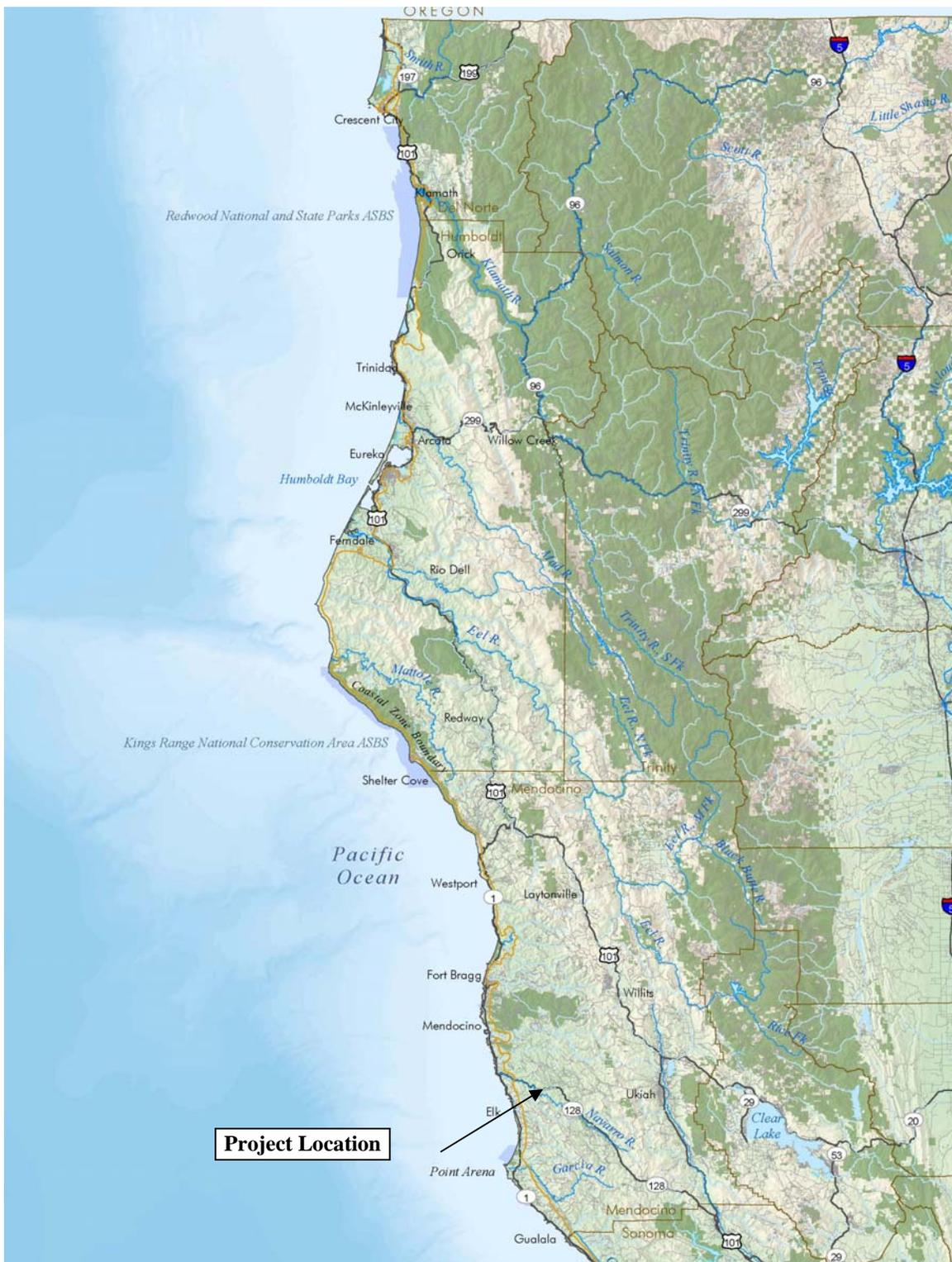
noise, as well as project-specific mitigation measures for the protection of biological resources necessary to avoid impacts to species of concern or their habitats. Specific measures applicable to the Mill Creek Upslope Road Sediment Reduction Project include those to protect Coho salmon and the listed birds, as detailed in Exhibit 3e. Other measures required to avoid impacts to resources specifically for the Mill Creek Upslope Road Sediment Reduction Project based on that project's Statement of Work include the following: Work is limited only to sites that area expected to erode and deliver sediment to the stream; treatments and sites may be modified upon approval by the CDFG contract manager for purposes of avoiding environmental impacts or increasing the effectiveness or feasibility of the project; and all road upgrading or decommissioning will be done in accordance with techniques described in the *Handbook for Forest and Ranch Roads (Weaver and Hagans 1994)* or Part X of the *California Salmonid Stream Habitat Restoration Manual (Flosi et al. 1998)*.

In addition, as further specified in the Mitigation Measures, Monitoring and Reporting Program, CDFG's project managers will inspect the work sites before, during and after completion of the project to ensure that all necessary mitigation measures to avoid impacts are properly implemented.

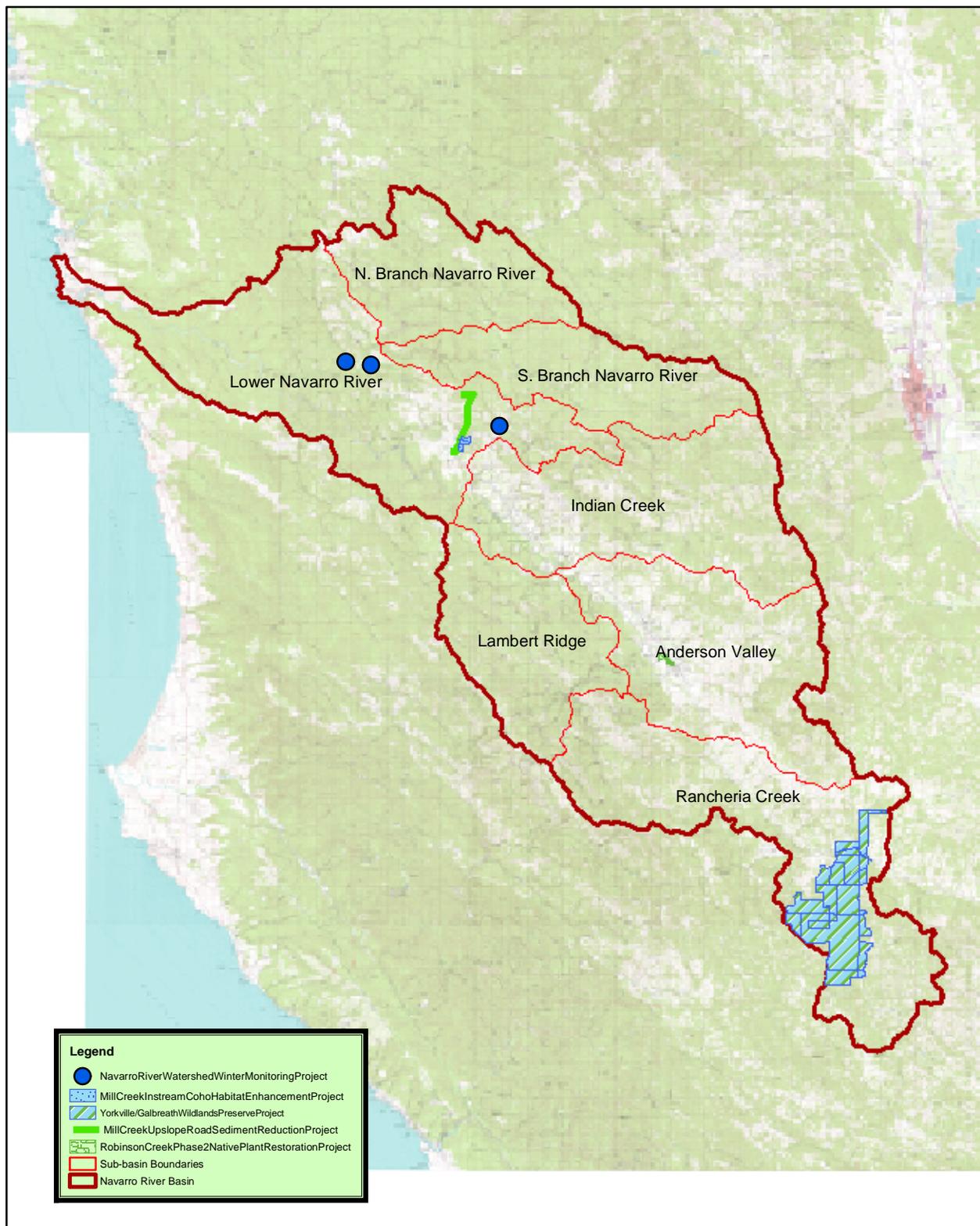
Staff concurs with the CDFG finding that with the incorporation of the Mitigation Measures, Monitoring and Reporting Program, implementing the proposed project will have no significant environmental impact. Concurrence is based on independent review of the MND, including the Statement of Work, the Natural Diversity Database listing for the proposed project, and the Mitigation Measures, Monitoring and Reporting Program Staff recommends that the Conservancy find that the Mill Creek Upslope Road Sediment Reduction Project does not have a potential for significant effect on the environment as defined under 14 California Code of Regulations Section 15382, or on wildlife resources, as defined under Fish and Game Code Section 711.2.

Staff will file a Notice of Determination for the Mill Creek Upslope Road Sediment Reduction Project component and a Notices of Exemption for the data collection and analysis and watershed awareness sign program components upon approval.

Exhibit 1 Project Location Map



Navarro Watershed Restoration Projects 2006



STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF FISH AND GAME
PROPOSED MITIGATED NEGATIVE DECLARATION

FOR

THE 2004 FISHERIES RESTORATION GRANT PROGRAM
IN
DEL NORTE, HUMBOLDT, MARIN, MENDOCINO, MONTEREY, NAPA,
SAN LUIS OBISPO, SAN MATEO, SANTA BARBARA, SISKIYOU, SONOMA,
AND TRINITY COUNTIES
AND
REQUIRED AGREEMENT REGARDING PROPOSED STREAM OR LAKE
ALTERATION

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This Report Has Been Prepared Pursuant to the
California Environmental Quality Act of 1970
State of California
The Resources Agency
Department of Fish and Game

INITIAL STUDY
AND
MITIGATED NEGATIVE DECLARATION
FOR
THE 2004 FISHERIES RESTORATION GRANT PROGRAM
IN
DEL NORTE, HUMBOLDT, MARIN, MENDOCINO, MONTEREY, NAPA,
SAN LUIS OBISPO, SAN MATEO, SANTA BARBARA, SISKIYOU, SONOMA,
AND TRINITY COUNTIES
AND
REQUIRED AGREEMENT REGARDING PROPOSED STREAM OR LAKE
ALTERATION

The Project: This project will use grant funds approved by the California Legislature to initiate activities that are designed to restore salmon and steelhead habitat in coastal streams and watersheds. Years of poor land management and natural events have limited the ability of fish to survive and successfully reproduce in coastal streams that historically produced large populations of salmon and steelhead. This proposed project is designed to increase populations of wild anadromous fish in coastal streams by restoring their habitat.

The project objective is to improve spawning success for adult salmon and steelhead as well as increase survival for eggs, embryos, rearing juveniles, and downstream migrants. Bank stabilization treatments will improve spawning conditions and embryo survival by reducing sediment yield to streams. Upslope road decommissioning or repair will also help address these widespread problems. The replacement of barrier culverts with bridges or natural stream bottom culverts will allow adult and juvenile salmonids access to additional spawning and rearing habitat. The installation of the instream structures will recruit and sort spawning gravel for adult salmon and steelhead, and create summer rearing pool and over-wintering habitat for juveniles.

The Finding: Although the project may have the potential to cause minor short-term impacts on soil, vegetation, wildlife, water quality, and aquatic life, the measures that will be incorporated into the project will lessen such impacts to an insignificant level (see initial study and environmental checklist).

Basis for the Finding: Based on the initial study, it was determined that there would not be significant adverse environmental effects resulting from implementing the proposed project. In addition, the project is expected to achieve a net benefit to the environment by enhancing and maintaining quality salmonid spawning and rearing habitat in the twelve-county project area.

The Department of Fish and Game finds that implementing the proposed project will have no significant environmental impact.

Therefore, this mitigated negative declaration is filed pursuant to the California Environmental Quality Act (CEQA), Public Resources Code Section 21080 (c2). This proposed mitigated negative declaration consists of all of the following:

- Detailed Project Description and Background Information
- Initial Study Environmental Checklist Form
- Explanation of Response to Initial Study Environmental Checklist Form
- Appendix A. Project Action Items
- Appendix B. Mitigation Measures, Monitoring and Reporting Program For the 2004 Fisheries Restoration Grant Program
- Appendix C. Guidelines for Conducting Project Specific Endangered, Rare and Threatened Species Surveys

DETAILED PROJECT DESCRIPTION AND BACKGROUND INFORMATION

FOR

THE 2004 FISHERIES RESTORATION GRANT PROGRAM

IN

DEL NORTE, HUMBOLDT, MARIN, MENDOCINO, MONTEREY, NAPA,
SAN LUIS OBISPO, SAN MATEO, SANTA BARBARA, SISKIYOU, SONOMA,
AND TRINITY COUNTIES

AND

REQUIRED AGREEMENT REGARDING PROPOSED STREAM OR LAKE
ALTERATION

INTRODUCTION

The proposed 2004 Fisheries Restoration Grant Program, formally known as "The 2004 Fisheries Restoration Grant Program in Del Norte, Humboldt, Marin, Mendocino, Monterey, Napa, San Luis Obispo, San Mateo, Santa Barbara, Siskiyou, Sonoma, and Trinity Counties" (Restoration Program), is a "project" subject to review under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). The Restoration Program involves funding, in whole or in part, of 93 habitat restoration action items in the twelve identified counties. These action items, which are set forth in Appendix A, are the principal focus of the environmental analysis set forth below.

The Restoration Program also involves other restoration-related activities, all of which are exempt from CEQA. These other activities fall into two distinct categories. The first category includes 55 action items for which there is no prospect of direct or indirect physical changes to the existing environment. These activities, in particular, involve the award of grants for watershed evaluation, assessment, planning, technical training, and public education. (See generally *Id.*, § 21102; Cal. Code Regs., title 14, § 15262.) Each of these action items are identified in Appendix A.

The second category of Restoration Program action items not discussed in detail in the environmental analysis that follows involve small-scale salmonid habitat improvement projects implemented solely with hand labor. These 11 minor action items, all of which identified in Appendix A, have no potential to adversely affect existing environmental conditions. The actions, in turn, fall within a class of activities that are exempt from CEQA pursuant to a finding by the Secretary of the Resources Agency that the activities pose no risk of potentially significant environmental impacts. (Pub. Resources Code, § 21084; Cal. Code Regs., title 14, §§ 15300, 15306, 15307.) These individual action items are also identified in Appendix A.

This initial study and the proposed mitigated negative declaration (MND) analyze the environmental impacts that might result from implementation of the proposed Restoration Program. The initial study and MND also serve to address potential environmental impacts that may occur to the extent an individual restoration activity requires a Streambed Alteration Agreement (SAA) from the Department (See Fish and Game Code, § 1600 et seq.). Finally, construction of all or a portion of some of the individual restoration activities may actually occur in subsequent years, depending on the terms and contract for each respective individual grant provided by the Department.

PROJECT GOAL AND OBJECTIVES

The primary goal of this restoration program is to maintain and restore natural watershed processes that create habitat characteristics favorable to salmonids.

The objectives of the restoration program action items are to enhance the capability of streams to produce wild anadromous salmonids by maintaining, restoring, and improving stream habitat essential to salmonid production.

Finally, it is the Department's objective to implement this project while not causing a significant adverse effect on the environment, or reducing the number or restricting the range of an endangered, rare or threatened species.

BACKGROUND

The Department may grant funds for habitat restoration to public and private entities, nonprofit organizations, and Indian tribes. Sections 1501 and 1501.5 of the Fish and Game Code pertain to activities funded by the Department.

This restoration program was established in 1981 and is administered by the Department. This program was initiated because of the precipitous drop in the population of fish in coastal streams, mainly salmon and steelhead. This program was developed as a mechanism to administer grant funds designated for the restoration of fish populations. Through the past several decades to the present time, funds allocated by the California Legislature have been used in this grant program in an effort to rebuild fish populations (see Fish and Game Code Section 6900 et seq.). Initially, grants were awarded in three categories: stream restoration, fish rearing, and education. In recent years, a more holistic watershed restoration approach has been emphasized that allows restoration throughout the watershed.

There are many factors responsible for the decline of California coastal salmon and steelhead stocks. One important factor is the degradation of stream habitats. Activities in watersheds including logging, mining, road building, livestock grazing, water

diversions, and dam construction have seriously impacted the ability of fish to survive and reproduce. For example, excessive fine-sediment has reduced egg and fry survival, removal of riparian vegetation has contributed to increased water temperatures, habitat has been impaired by water diversions, and culverts and dams have blocked fish passage. Habitat destruction has been instrumental in drastically reducing native anadromous fish populations. Natural events such as wildfire, drought, and floods have also exacerbated these problems. This has caused extreme financial hardship to a once thriving commercial fishery and drastically reduced, or in some cases eliminated, a very popular sport fishery. Several stocks have been reduced to the point where listing under the Federal and State Endangered Species Acts has become necessary.

The Restoration Program was instituted as the critical need to restore salmon, and steelhead stream habitat was recognized. Guided by the *California Salmonid Stream Habitat Restoration Manual* (Flosi et al., 1998), hundreds of habitat restoration actions in this Restoration Program have been completed by government agencies and nonprofit groups. Activities have included revegetation with livestock exclosure fencing, riparian planting, barrier removal, bank stabilization and other bank protection structures, and decommissioning of roads and improving drainage systems on existing roads. Instream structures such as boulder clusters, wing deflectors, and log cover have also been used. Culverts that have impeded fish migration have been replaced with bridges or culverts with natural stream bottoms allowing fish access to additional stream reaches. Finally, other watershed improvement activities include installation of fish screens to prevent entrainment of juvenile salmon and steelhead. These actions create spawning and nursery habitat, provide escape cover and prevent fine sediments from entering streams. Project monitoring has shown significant habitat improvements in streams where this work has taken place. A gradual rebuilding of salmon and steelhead populations is expected as this program continues.

PROJECT LOCATION

Activities performed in the Restoration Program typically occur in watersheds that have been subjected to significant levels of logging, road building, mining, grazing, and other activities that have reduced the quality and quantity of stream habitat available for native anadromous fish.

Coastal watersheds previously dominated by mature redwood and Douglas fir forest, contain extensive road and skid trail systems from tractor logging. These previous mature, forested areas can now be found in various seral stages of vegetative recovery and are predominate in the coastal Restoration Program region. Action items are implemented within the stream course to improve fish habitat. Upslope restoration actions improve fish habitat by reducing the input of fine sediment to the stream environment.

Inland locations are usually in watersheds dominated by pine and fir forests, often with steep unstable terrain; some inland locations are in valley areas in agricultural use. Most restoration activities are intended to reduce sediment delivery to streams, and provide spawning and rearing habitat in the streams. Streams flowing through valley areas will be treated to stabilize stream banks and increase riparian vegetation.

SCHEDULE

The activities carried out in the Restoration Program typically occur during the annual period of dry weather. Stream work is normally confined to the period of July 1 to November 1 (or the first significant fall rainfall). This is to take advantage of low stream flows and is outside the spawning and egg/alevin incubation period of salmon and steelhead.

Generally, upslope work occurs during the same approximate period. Road decommissioning and other sediment reduction activities are dependent on soil moisture content. Equipment access on dirt roads, and the ability of equipment to move soil, is inhibited by wet conditions. The scheduling of upslope work may also be impacted by the avoidance of nesting or breeding seasons of birds and terrestrial animals.

Some activities may continue after November 1, but only where no impact, or less than significant impacts, will result. This will primarily involve hand-planting of tree seedlings, which typically does not begin until December 1, and may continue until the end of March. Planting during the wet season is necessary to ensure the best survival of seedlings.

PROJECT DESCRIPTION

The Department releases an annual Proposal Solicitation Notice (Solicitation) for proposals for fishery restoration, conservation education, and watershed assessment and planning work throughout California. Following initial review, proposals are sent to appropriate fishery staff for field review, comment, and scoring, using standardized evaluation criteria. The evaluation process requires consideration of benefits to the fishery resources, need for work in particular drainages or sites, benefit for targeted species, project costs, and positive or negative impacts to the environment. Proposals are then evaluated and prioritized by a Department advisory committee. Grants and contracts are written for the approved action items and environmental documents are completed.

The Fisheries Restoration Grant Program has operated in the past under Regional General Permit #22323N (now expired) issued by San Francisco District of the U. S. Army Corps of Engineers (USACE). An application for a new Regional General Permit has been submitted to the San Francisco District of the USACE, and a new

permit is anticipated in June, 2004. Major action items requiring Section 404 certification from the San Francisco District of the USACE will be permitted under either Regional General Permit 1 or the anticipated Regional General Permit. RGP 1 provides for the renovation or replacement of existing road crossings to improve fish passage and/or reduce sediment introduction into the aquatic ecosystem. The anticipated permit will allow the Department, contractors, and other individuals and groups to conduct fishery habitat restoration activities using methods described in the *California Salmonid Stream Habitat Restoration Manual* (Flosi et al 1998) that have been evaluated by Department biologists. NOAA-Fisheries (formerly NMFS) and the US Fish and Wildlife Service will both be issuing a non-jeopardy biological opinion, with a follow-up road decommission and culvert replacement addendum, that addressed the impacts of the Department's Restoration Program. The anticipated Regional General Permit will be in place for five years (2009).

Contractors implementing action items requiring USACE Section 404 certification from the Los Angeles District will be responsible for obtaining separate approvals for each action item. Most restoration action items needing USACE approval may qualify under Nationwide Permits #3 (Maintenance), #13 (Bank Stabilization), #14 (Linear Transportation), or #27 (Stream and Wetland Restoration Activities).

The Fisheries Restoration Grant Program has submitted an application for a programmatic Section 401 Certificate to the State Water Resources Control Board. A description of project work and methods to prevent impacts on water quality will be provided annually to the State Water Resources Control Board, and to the appropriate regional boards.

The Department's lake and stream alteration agreement process (Fish and Game Code Section 1600 et seq.) is an integral part of stream restoration planning and implementation. An agreement is developed for each action item which defines required measures to minimize disturbance to the stream environment. Procedures to accomplish this task are contained in "A Field Guide to Stream and Lake Alteration Agreements" (Department of Fish and Game, Environmental Services Division, 1994). Activities such as installing culverts to provide fish passage, operating equipment in or near streams, and installing bank stabilizing structures are all discussed in the context of minimizing impacts.

All features of this project requiring CEQA review are being provided in sufficient detail to facilitate public review and clearly define the environmental evaluation. In order to achieve this goal, the Restoration Program action items are considered to fall into three categories corresponding to similar activities and requirements for CEQA review. These three categories of action items are as follows:

Public Involvement, Planning, Research, Monitoring, Education and Habitat Acquisition Action Items

Action items in this category will include watershed evaluation, assessment, planning, technical training, public education, and habitat acquisition projects. The names of 55 action items in this category are presented in a list in Appendix A, Table A-1. These action items all qualify as either statutory or categorical exemptions under CEQA Guidelines sections 15262 (Feasibility and Planning Studies), 15306 (Information Collection), 15313 (Acquisition of Lands for Wildlife Conservation Purposes), and 15322 (Educational or Training Programs Involving No Physical Changes). These action items have no potential to change any physical conditions including land, air, water, minerals, plants, animals, ambient noise, historic sites, or aesthetics. Based upon these facts, these types of action items will not be discussed further in this document.

Restoration Element - Minor Action Items

Action items under this category only include small stream habitat restoration activities that improve spawning and rearing habitat for salmon and steelhead trout, without impacting other species. The names of 11 action items in this category are presented in a list in Appendix A, Table A-2. The designs of the action items have been reviewed by the Department and will be implemented by the California Conservation Corps (CCC) and other hand labor crews. These crews and their crew supervisors are trained by Department personnel on life cycle and habitat needs of salmon and steelhead trout, as well as other listed species within the geographic scope of the activity. The crews and their supervisors also attend workshops and technical training on salmonid stream habitat restoration techniques. Department personnel closely supervise all stream restoration actions implemented under this restoration element. Department personnel inspect each action item site for compliance at least once before work begins, once during implementation, and once at the end of a restoration activity.

The stream habitat restoration actions include: installation of digger logs, spiderlogs, boulder or log weirs, and boulder or log wing deflectors. Stream bank stabilization may include the use of boulder and cobble armoring of eroding banks, log cribbing, willow mattresses, or willow siltation baffles. Revegetation of riparian habitat normally involves the use of willow sprigs or willow or alder seedlings or transplants. Indigenous stocks (when available) will be used for all planting projects. Several of the action items will only involve maintenance of existing instream structures. The techniques that will be used for these action items have proven successful on many north coast streams and are detailed in the current version of the *California Salmonid Stream Habitat Restoration Manual*. This manual describes in detail how the work will be performed in the field.

Heavy equipment will not be used for any of the actions listed under this category. CCC and other labor crews will be utilized to implement the proposed

actions. Disturbance of the stream banks will be kept to an absolute minimum. All work will be done with hand tools and riparian vegetation will not be removed. No roads will be constructed to complete action items. All sites are accessible by existing dirt or gravel roads or established trails. Access to restoration activity sites has been identified and will not create bank erosion or cause the removal of riparian trees. Staging areas at the activity sites will be set up on dry stream banks where there will be a minimum, and less than significant, impact to vegetation. Disturbed or bare mineral soils resulting from work activities, which are subject to surface erosion, will be seeded and straw mulched.

These activities are normally classified as categorically exempt according to CEQA Guidelines Sections 15301, Class 1(i), and Section 15304, Class 4(d). Because these types of action items have no potential for causing significant negative impacts they will not be discussed further in this document.

Restoration Element - Major Action Items

There is a notable difference in the level of activity found under this category. A description of each action item (93 total) in this element is located in Appendix A. Complete site plans and prescriptions for action items located in Del Norte, Humboldt, Siskiyou, Trinity, and portions of Mendocino counties are available for review at the Department of Fish and Game Northern California-North Coast Regional Office at 601 Locust Street, Redding, California 96001. For an appointment to view this information, contact Kevin Gale at (530) 225-2462, Monday through Friday, between the hours of 8 a.m. and 5 p.m. This information is also available for review at the Fortuna Field office, 1455 Sandy Prairie Ct., Suite J, Fortuna, CA 95540. For an appointment to view this information, contact Gary Flosi at (707) 725-1072, Monday through Friday, between the hours of 8 a.m. and 5 p.m.

Complete site plans and prescriptions for action items located in Marin, Monterey, Napa, San Luis Obispo, San Mateo, Sonoma, and portions of Mendocino counties, are available for review at the Department of Fish and Game, Central Coast Region, office of Senior Biologist Supervisor, Bob Coey, 7329 Silverado Trail, Yountville, California 94559. Appointments may be made by telephoning (707) 944-5582, Monday through Friday, between the hours of 8 a.m. and 5 p.m.

Complete site plans and prescriptions for the action item located in Santa Barbara County, are available for review at the Department of Fish and Game, South Coast Region, office of Senior Fishery Biologist Specialist, Mary Larson, 4665 Lampson Ave, Suite C, Los Alamitos, California 90720. Appointments may be made by telephoning (562) 342-7186, Monday through Friday, between the hours of 8 a.m. and 5 p.m.

These items require larger size material and increased volumes to be moved by

heavy equipment and, in so, doing involve certain limited construction activities. This category uses many of the same instream habitat restoration techniques discussed in the previous element. In addition, upslope earthmoving and culvert replacement activities are also included.

Typically, these stream habitat restoration activities use dump trucks to deliver logs, root wads, or quarry rock to staging areas, and front-end loaders to deliver material to restoration sites. Existing stream crossings will be used to access the stream in most cases. If stream crossings do not exist, the least damaging access point will be selected based upon the size, type, and density of riparian vegetation. Where use of such access points is necessary, riparian vegetation can be affected, particularly the upper part of plants may be damaged, with the roots and lower parts receiving minimal damage. Plants damaged in this way will usually re-sprout and recover.

Hydraulic excavators or backhoes may be used to excavate trenches or keyways in stream banks to anchor logs or boulder structures. Excavators are used to place materials, construct instream structures, and stabilize stream banks with boulders and logs. Willow cuttings are usually placed into the keyway trenches around the logs or boulders and then the trench is backfilled with cobble and native soil. This procedure anchors the structure into the stream bank, accelerates the establishment of willows around the structure, and prevents the stream from scouring around the newly placed structure.

Some major action items will stabilize stream banks or small stream-side landslides. These action items will armor and buttress the landslide or stream bank using boulders, logs, root wads, and loose rock revetment. Revetments are designed with logs, root wads, and boulders that project into the stream to provide instream cover and velocity breaks for salmonids. Smooth riprap, however, which accelerates water velocities along the stream bank, is not permitted under this program. When practical, the bank will be sloped back to a minimum 1.5 to 1 slope. A toe trench will be excavated at the toe of the landslide or eroding bank. The excavated trench will be backfilled with boulders at least three feet in diameter and will extend up to the high-water mark. Rock from the toe trench, up to the high-water mark, will be of a size that will withstand normal high flows. Revetment will extend upstream and downstream of the unstable reach and will be keyed into the stable banks.

Runoff from above the slide or eroding banks will be diverted away from the area being stabilized. The slide face will be revegetated using indigenous plants. Willow cuttings will be placed in the toe trenches. Browse protectors will be used on seedlings to prevent predation by browsing animals.

All work, except for the revegetation, will take place during the summer and fall (low flow period) and shall be completed before the first significant seasonal rainfall. Planting of seedlings will take place after December 1, or when sufficient rainfall has

occurred, to ensure the best chance of survival of the seedlings, but in no case later than April 1. All habitat improvements will be done in accordance with techniques described in the *California Salmonid Stream Habitat Restoration Manual*.

Upslope action items in this section will upgrade or decommission roads by implementing all or part of the following tasks: road ripping or decompacting; installing or maintaining rolling dips (critical dips); installing or maintaining waterbars and crossroad drains; replacing, maintaining or cleaning culverts; outsloping roadbeds; revegetating work sites; and excavating stream crossings with spoils stored on site or end-hauled.

Sites which are expected to erode and deliver sediment to the stream are the only locations where work will be authorized under this category. Work will not be authorized to improve aesthetic values only.

Removal of road and skid trails will include retrieving unstable material sidecast during original road construction and excavation of stream crossings and other watercourse fill. Stream crossings will be excavated to original width, depth, and slope to expose natural channel morphology and armor. Side slopes will generally match original contours above and below the road. Culverts that are replaced in fish bearing reaches of streams will be done in a manner to allow for unimpeded upstream and downstream fish passage.

When fill material is placed on road benches for permanent storage, the roadbench will be ripped or decompacted first. The fill will then be placed against the cutbank and shaped to blend with the surrounding topography that existed prior to road construction. Outsloping of the roadbed will occur as needed, to reduce potential sediment delivery to the stream where there is insufficient fill available to recontour the site, or where there is evidence that the overall long-term stability of the site does not justify a full recontour treatment. Where practical, fill will be compacted to the top of the filled cut to reduce the potential for seismically induced landsliding. Spoil material will be stored in stable locations where it will not erode. If stable spoils storage sites are not available within the project area, they will be end-hauled to a stable storage site outside of the project area. Areas chosen for this purpose will be devoid of tree and shrub vegetation. Upon completion of each site, woody debris will be scattered over the surface of the restored area as mulch.

Road crossing removal may involve some removal of vegetation that has grown in sediment that has been deposited upslope of road prisms. Most of this vegetation will be used as coarse wood mulch on bare soils to reduce surface erosion. Some of the material will be transplanted on-site as one component of the restoration action items. In all cases, disruption of existing vegetation will be minimized.

Culvert replacement requires diverting stream flow around the project site and

excavating the existing culvert with heavy equipment. Normally concrete footings are constructed to support a new bottomless culvert or bridge. If appropriate, grade control structures are incorporated into the project area to prevent excessive down-cutting of the stream. All work concerning culvert replacement will be consistent with current Department and NMFS criteria concerning fish passage. Current NMFS fish passage criteria can be found on the web at: <http://swr.nmfs.noaa.gov/habitat.htm>. Department fish passage criteria can be found in Part IX of the *California Salmonid Stream Habitat Restoration Manual*, available at <http://www.dfg.ca.gov/nafwb/manual.htm>.

Fish screens are constructed within existing irrigation diversions to prevent entrainment of juvenile salmon and steelhead. Fish screens are composed of a concrete foundation and walls. A steel framework supports perforated screen panels with a mechanical cleaning system. A bypass carries the fish back to the stream. Current NMFS and Department fish screen criteria can be found in Appendix S of the *California Salmonid Stream Habitat Restoration Manual*.

Appendix A contains a list of major action item titles, locations, and descriptions of work that will be implemented at each site. The action item designs are reviewed by the Department and are implemented by contractors utilizing heavy equipment and some hand labor crews. During a pre-project inspection, the contractor and the Department will tour the entire activity area and identify the sites and techniques necessary to carry out the recommendations. The site-specific recommendations will be listed in an inspection report which will be acknowledged by the contractor's signature, as a required element of the activity. The Department will continue to inspect the work site during and after completion of the action item. All road upgrading or decommissioning will be done in accordance with techniques described in Part X of the *California Salmonid Stream Habitat Restoration Manual*, available at <http://www.dfg.ca.gov/nafwb/manual.htm>. All culvert replacement projects shall be done in accordance with techniques and criteria consistent with current Department and NMFS guidelines concerning fish passage. Implementation of each major action item will be conditioned and controlled to prevent any potentially significant impacts under CEQA.

Environmental Assessment Of Each Major Action Item

Each action item is assigned to the appropriate category using the established criteria for each category. The work to be completed for each action item is carefully evaluated to make this determination. Once this evaluation process is completed, the action items described under the Restoration Element - Major Action Items section, are subjected to a systematic environmental analysis. This analysis ultimately prescribes site-specific conditions which must be applied in order to avoid potentially significant negative effects on the environment, including such effects on endangered, rare, or threatened species and their habitat.

First, all major action items listed in Appendix A will comply with Department

policies to conduct archaeological and rare plant surveys. A qualified archaeologist(s) will be contracted to complete the surveys using standard protocols. Rare plant surveys will be conducted following the Guidelines for Assessing the Effects of Proposed Developments on Rare and Endangered Plants and Plant Communities (Department of Fish and Game, 2000). A review of the Department's Natural Diversity Data Base (NDDDB) for each project located in the entire twelve-county programmatic project area is attached to the statement of work for each major action item listed in Appendix A and indicates which plant species found on a State or Federal special status list that could potentially be affected at the work sites. Archaeology and rare plant surveys will be completed prior to any ground disturbing activities. If any potentially significant impact cannot be avoided, the action item will not be implemented. Any site specific recommendations made by a Department biologist, or other qualified biological consultant, to avoid any potentially significant impacts shall become part of the work plan. The Department will ensure that the contractor or responsible party is aware of, and implements, these site specific conditions. Also, the Department will inspect the work site before, during, and after completion of the action item. Any violation of the specific recommendations will be immediately rectified. Failure, or inability, to rectify a particular recommendation will cause all work to cease until a remediation plan is developed that avoids the potentially significant impact.

Next, a review of the Department's NDDDB for the entire twelve-county project location indicated which animal species found on a State or Federal special status list may be present at the work sites. This site specific information is also attached to each statement of work in Appendix A. Mitigation measures to avoid impacts to these species are presented along with other mitigation measures in Appendix B, Mitigation Measures, Monitoring and Reporting Program. In the absence of site-specific information, species identified as having potential to be affected at a work site will be presumed to be present and mitigation measures to avoid impact to that species will be implemented. Any site-specific surveys to confirm the presence, or absence, of a species at a work site will follow the Guidelines for Conducting Project Specific Endangered, Rare, and Threatened Species Surveys (Appendix C). Streambed Alteration Agreements and contracts for each site will be conditioned to avoid impacts to any special status species that could potentially be affected at that site. The Department will ensure that the contractor or responsible party is aware of all specific conditions that apply to their work site. Also, the Department will inspect the work site before, during, and after completion of the action item to ensure compliance with mitigation measures to avoid potential impacts to endangered, rare, or threatened species. Any violation of the specific recommendations will be immediately rectified. Failure or inability to rectify a particular recommendation will cause all work to cease at that site until a remediation plan is developed.

Through careful design, scheduling, and monitoring, any and all potentially significant impacts associated with the major action items will be avoided or mitigated to below a level of significance under CEQA. Additional details regarding implementation

of major action items, including required mitigation measures, are detailed in the environmental checklist section below.

Monitoring

Project monitoring is considered an important element in the activity development and implementation process. The monitoring process provides performance control during the activity and also provides a measure of the benefits, insight, and guidance for future projects.

Activity monitoring during implementation is geared to ensure that all regulatory environmental issues are strictly addressed including air, water, and avoiding impacts to sensitive plant and animal species. During implementation, activities are carefully monitored to make sure plans are followed by using the correct materials and techniques so that the objectives of the activities are met while still protecting the environment.

Post-activity monitoring begins with information collected immediately after the activity is completed and documents whether the project was completed as designed and according to the contract specifications. This information includes documenting the exact location where the activity has occurred with reference points and survey marks. Final project reports should contain "as-built" descriptions with design drawings and photographs (both before and after the activity) are collected. A complete activity description including the objectives of the activity must be retained.

The next phase of post-activity monitoring should occur within one to three years after an action item is complete. The Department will randomly select ten percent of the action items within each project work type for evaluation. This evaluation shall be recorded on standard project evaluation forms developed by California Department of Fish Game using procedures developed by the Department and described in the *California Salmonid Stream Habitat Restoration Manual*, Part VIII, Project Monitoring and Evaluation. Physical features associated with an activity are generally more easily measured and interpreted. Biological data, especially anadromous fish data, is more difficult to collect and interpret. Reliable analysis of anadromous salmonid population response to habitat improvement prescriptions generally require many years of trend data.

Complete monitoring specifications are included in the *California Salmonid Stream Habitat Restoration Manual* including survey protocols and data interpretation. Additional details on monitoring and reporting requirements are presented in Appendix B.

REFERENCES:

California Department of Fish and Game. 1994. A Field Guide to Stream and Lake Alteration Agreements. Environmental Services Division. Calif. Fish Game.

California Department of Fish and Game. 1997. Guidelines for Assessing the Effects of Proposed Developments on Rare and Endangered Plants and Plant Communities. Environmental Services Division. Calif. Fish Game.

Flosi, G, S. Downie, J. Hopelain, M. Bird, R. Coey, and B. Collins. 1998. *California Salmonid Stream Habitat Restoration Manual*. Third Edition. Calif. Fish and Game. The most current version of the manual is available at: <http://www.dfg.ca.gov/nafwb/manual.html>. A hard copy of the manual may be requested from the California Department of Fish and Game, Native Anadromous Fish and Watershed Branch, attn. Habitat Restoration Coordinator, 830 S St., Sacramento, CA 95814.

Flosi, G, S. Downie, M. Bird, R. Coey, and B. Collins. 2003. *California Salmonid Stream Habitat Restoration Manual*. Volume II, Third Edition. Calif. Fish and Game. The most current version of the manual is available at: <http://www.dfg.ca.gov/nafwb/manual.html>.. A hard copy of the manual may be requested from the California Department of Fish and Game, Native Anadromous Fish and Watershed Branch, attn. Habitat Restoration Coordinator, 830 S St., Sacramento, CA 95814.

Hagans and Weaver. 1994. Handbook for Forest and Ranch Roads. 161 p. Prepared by William E. Weaver, Ph.D. and Danny K. Hagans, Pacific Watershed Associates for the Mendocino County Resource Conservation District, 405 Orchard Ave., Ukiah, CA 95482.

Notice of Determination

Form C

To: Office of Planning and Research
PO Box 3044, 1400 Tenth Street, Room 212
Sacramento, CA 95812-3044

From: California Department of Fish and Game
Native Anadromous Fish and Watershed Branch
830 S Street
Sacramento, CA 95814-7023
(Address)

Subject:

Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

The 2004 Fisheries Restoration Grant Program

Project Title

# <u>2004052087</u>	<u>Helen Blriss</u>	<u>(916) 327-8842</u>
State Clearinghouse Number (If submitted to Clearinghouse)	<u>California Department of Fish and Game</u> Lead Agency Contact Person	Area Code/Telephone/Extension

Project Location (include county)

Del Norte, Humboldt, Marin, Mendocino, Monterey, Napa, San Luis Obispo, San Mateo, Santa Barbara, Siskiyou, Sonoma, and Trinity Counties.

Project Description:

This project will use grant funds approved by the California Legislature to initiate activities designed to restore coastal streams and watersheds that historically produced large populations of salmon and steelhead.

This is to advise that the California Department of Fish and Game has approved the above described project on Lead Agency Responsible Agency

June 16, 2004 and has made the following determinations regarding the above described project:
(Date)

1. The project [will will not] have a significant effect on the environment.
2. A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [were were not] made a condition of the approval of the project.

This is to certify that the final EIR with comments and responses and record of project approval is available to the General Public at: 830 S Street, Sacramento, CA 95814. Please contact the lead agency person specified above.

Larry Meek
Signature (Public Agency)

July 7, 2004
Date

Branch Chief
Title

Date received for filing at OPR:

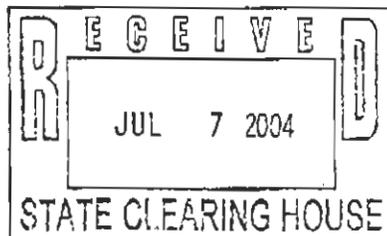


EXHIBIT A
Mill Creek Upslope Road Sediment Reduction Project
STATEMENT OF WORK

Under direction of the Grantor, and under the following conditions and terms, the Grantee will:

1. Implement site specific erosion control measures to in the Mill Creek, Navarro River watershed in Mendocino County (T15N R15W Sec 34), to remediate approximately 18,164 cubic yards of potential sediment delivery to streams inhabited by anadromous salmonids. Remediation work will include sediment control upgrades at approximately 26 sites along approximately 6 miles of road, where future sediment delivery has been found likely to occur. Treatment sites will include 10 stream crossings. Sediment remediation work will include culvert installation, culvert replacement at 5 sites, downspout installation at 3 sites, culvert cleaning at 1 site, flared inlet installation at 1 site, soil excavation at 1 site, rolling dip installation, wet crossing installation, critical dip installation at 6 sites, road berm removal, road outsloping, and rocking of road surfaces. Decommissioning of roads may take place on roads that have been recommended for permanent closure.
2. Sites which are expected to erode and deliver sediment to the stream are the only locations where work will be authorized for reimbursement under the terms of this agreement. Treatments and sites may be modified upon approval by the DFG Contract Manager for purposes of avoiding environmental impacts or increasing the effectiveness or feasibility of the project. Reimbursement will not be authorized for work done to improve esthetic values only.
3. Culverts that are replaced in fish bearing reaches of streams will be done in such a manner that will allow for fish passage
4. All road upgrading or decommissioning will be done in accordance with techniques described in the "Handbook for Forest and Ranch Roads" (Weaver and Hagans 1994) or Part X of the "California Salmonid Stream Restoration Manual" (Flosi et al. 1998).
5. The Grantee will acknowledge the participation of the Department of Fish and Game, >ENTER FUNDING SOURCE< funds on any signs, flyers, or other types of written communication or notice to advertise or explain the project.
6. Upon completion of the project, the Grantee shall submit two hard copies of a final written report and one electronic, *Microsoft Word* compatible, copy on 3.5 inch floppy disk(s) or CD. The report shall include, but not necessarily be limited to the following information: (1) the grant number, (2) project name; (3) geographic area (e.g., watershed name); (4) location of work – show project

location using U.S.G.S. 7.5 minute topographical map or appropriately scaled topographical map; (5) geospatial reference/location (lat/long is preferred – defined as point, line, or polygon); (6) project start and end dates and the number of person hours expended; (7) total of each fund source expended to complete the project, breaking down Grant dollars and any other funding, whether in dollars or in-kind service; (8) expected benefits to anadromous salmonids from the project; (9) labeled before and after photographs of any restoration activities and techniques; (10) specific project access using public and private roads and trails, with landowner name and address; (11) a complete as built project description; and (12) the following specific measurables:

- Type and number of sites treated (e.g., fencing, road removal)
- # of miles of road decommissioned, upgraded or restored (e.g., closed, obliterated, treated)
- # of cubic yards of sediment saved from entering the stream.

Table 1. Site classification and sediment yield from all inventoried sites with future sediment delivery, Holmes Ranch assessment area, Mill Creek, Mendocino County, California.

Site Type	Number of sites or road miles to treat	Sites recommended for treatment		
		Future yield (yds ³)	Stream crossings w/ a diversion potential (#)	Stream culverts likely to plug (plug potential rating = high or moderate)
Stream crossings	10	4,400	7	7
Other	16	175	–	–
Total (all sites)	26	4,575	7	7
Persistent surface erosion ¹	5.79	13,589	–	–
Totals	26	18,164	7	7

¹ Assumes 30' wide road prism and cutbank contributing area, and 0.4' of road/cutbank surface lowering over a 2 decade period.

Table 2. Treatment priorities for inventoried sediment sources, Holmes Ranch assessment area, Mill Creek, Mendocino County, California.

Treatment Priority	Upgrade sites (# and site #)	Problem	Future sediment delivery (yds ³)
High	2 (site #: 103, 121)	1 stream crossing, 1 other	435
High - Moderate	1 (site #: 11)	1 stream crossing	1,939
Moderate	5 (site #: 90, 119, 122, 126, 128)	3 stream crossings, 2 other	2,587
Moderate - Low	6 (site #: 89, 104, 118, 123, 127, 132)	3 stream crossings, 3 other	4,028
Low	12 (site #: 88, 91, 105, 106, 116, 120, 124, 125, 129, 130, 131, 133)	2 stream crossings, 10 other	9,175
Total	26	10 stream crossings, 16 other	18,164

Table 3. Recommended treatments for selected inventoried sites in the Holmes Ranch assessment area, Mill Creek, Mendocino County, California.

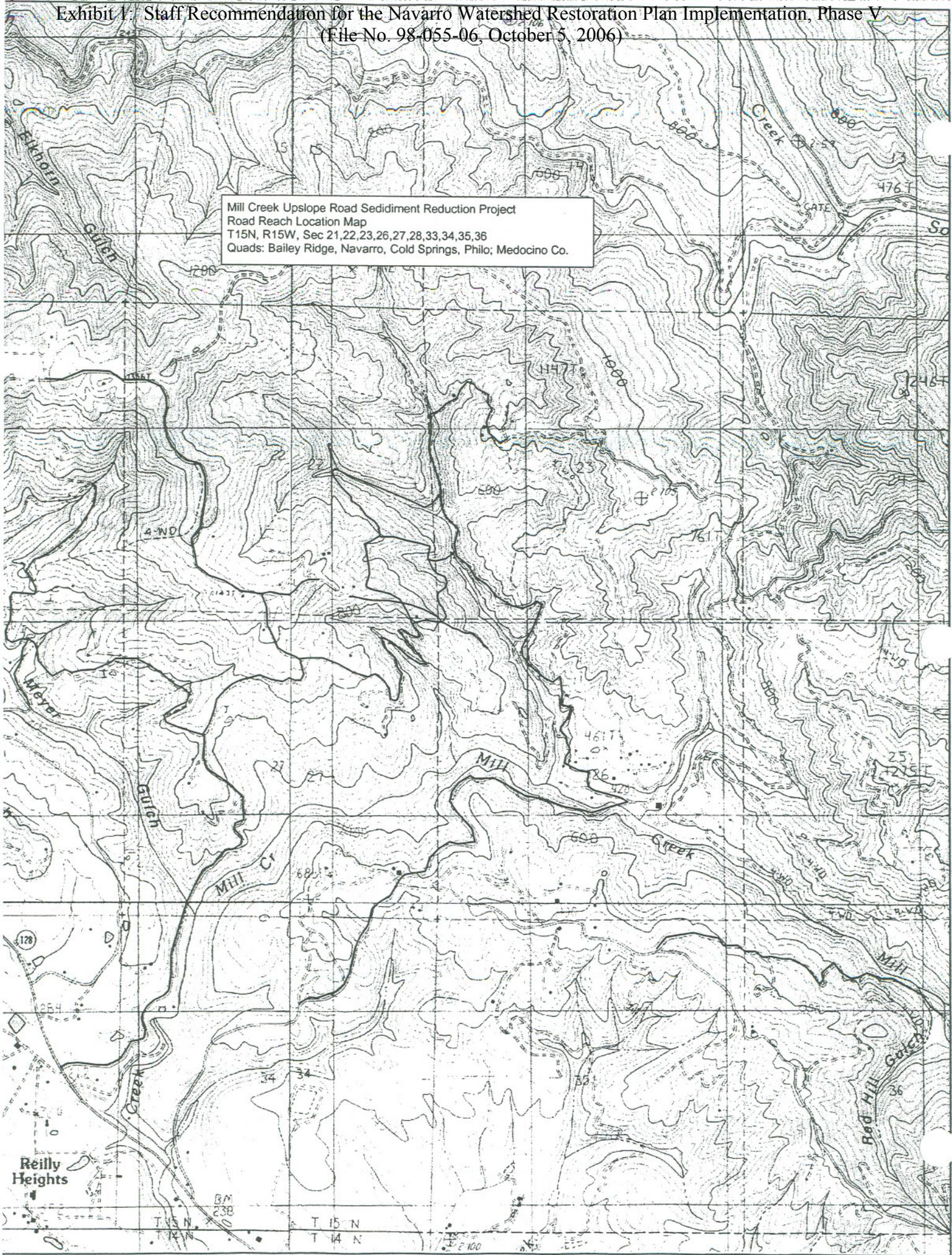
Treatment	No.	Comment	Treatment	No.	Comment
Critical dip	6	To prevent stream diversions	Outslope and remove ditch	4	Outslope and remove ditch along 2,229 feet of road to improve road surface drainage
Replace CMP	5	Upgrade an undersized CMP	Outslope and retain ditch	16	Outslope and retain ditch along 9,787 feet of road to improve road surface drainage
Excavate soil	1	Typically fillslope & crossing excavations; permanent excavation of 1,239 yds ³	Install rolling dips	58	Install rolling dips to improve road drainage
Down spouts	3	Installed to protect the outlet fillslope from erosion	Remove berm	7	Remove 7,257feet of berm to improve road surface drainage
Clean culvert	1	Clean culvert inlet to reduce plugging potential	Install ditch relief CMP	4	Install ditch relief culverts to improve road surface drainage
Install flared inlet	1	Install flared inlet to increase culvert capacity	Rock road surface	—	Rock road surface using 3,000 yds ³ of road rock at 58 proposed rolling dips and along selected sections of road.

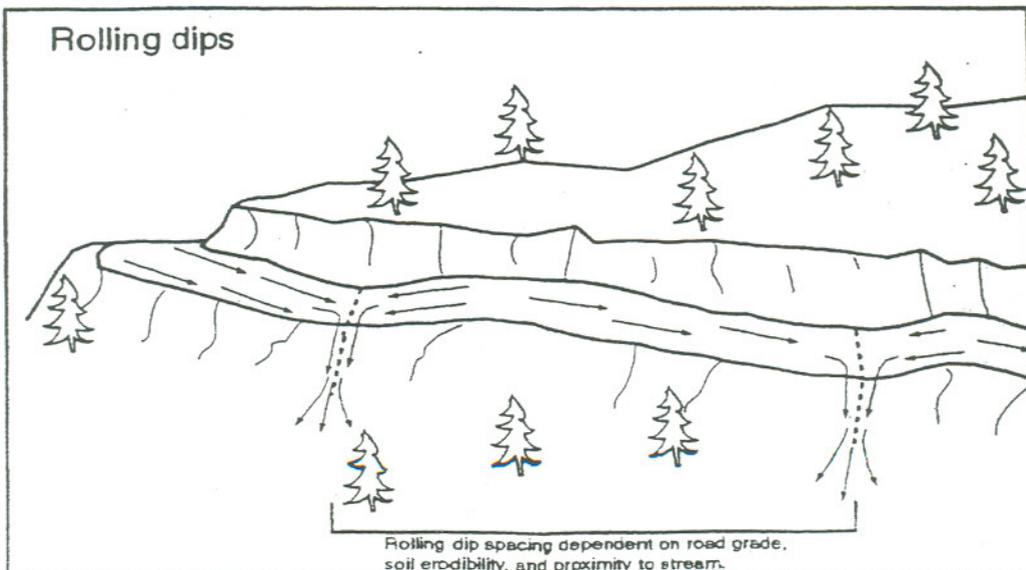
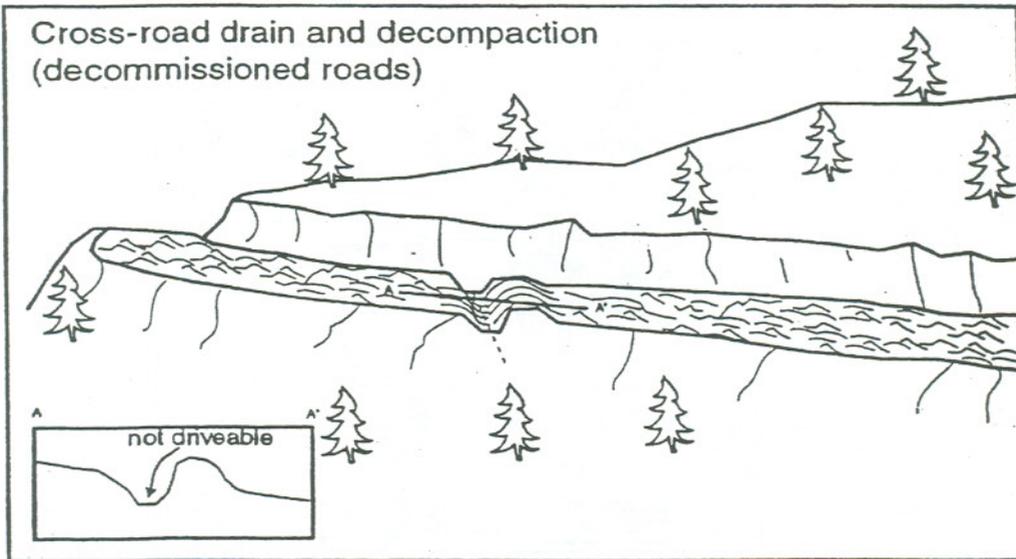
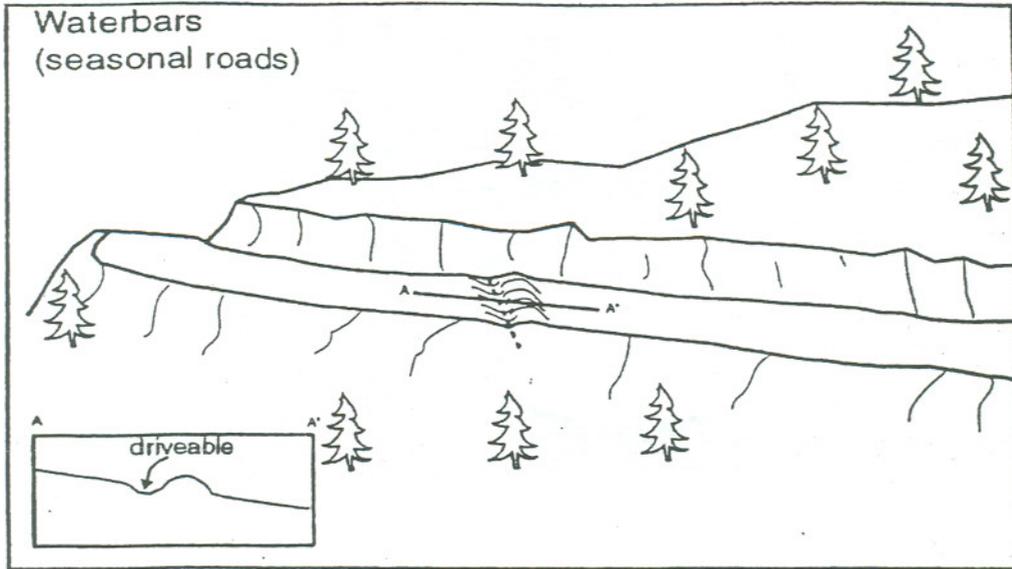
Table 4. Estimated heavy equipment and labor requirements for treatment of selected inventoried sites with future sediment delivery, Holmes Ranch assessment area, Mill Creek, Mendocino County, California.

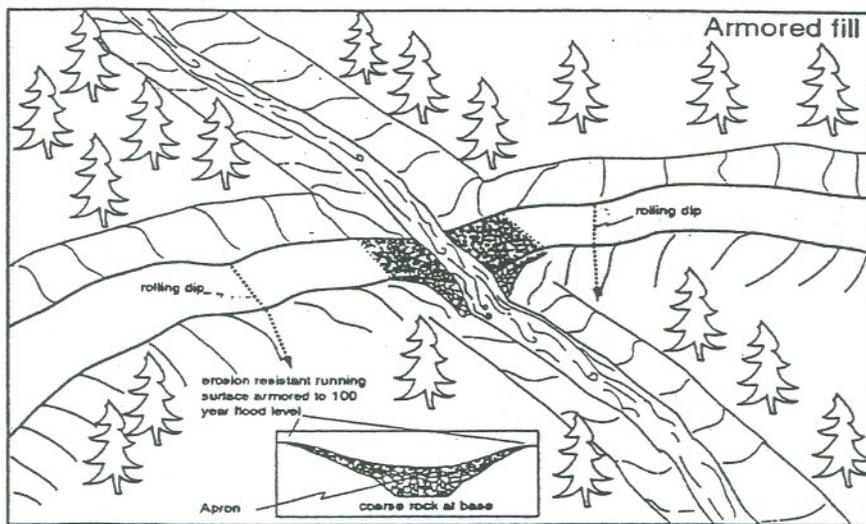
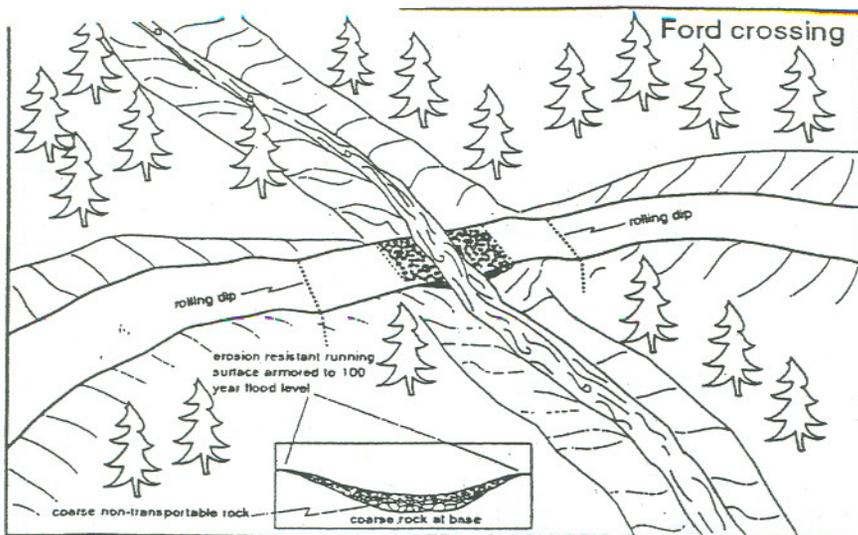
Treatment Immediacy	Site (#)	Total Excavated Volume (yds ³)	Excavator (hrs)	Tractor (hrs)	Grader (hrs)	Backhoe (hrs)	Labor (hrs)
High, High/Moderate	3	1,698	34	35	3	0	14
Moderate, Low/Moderate	11	668	29	45	15	3	32
Low	12	0	0	37	17	6	0
Total	26	2,366	63	117	35	9	46

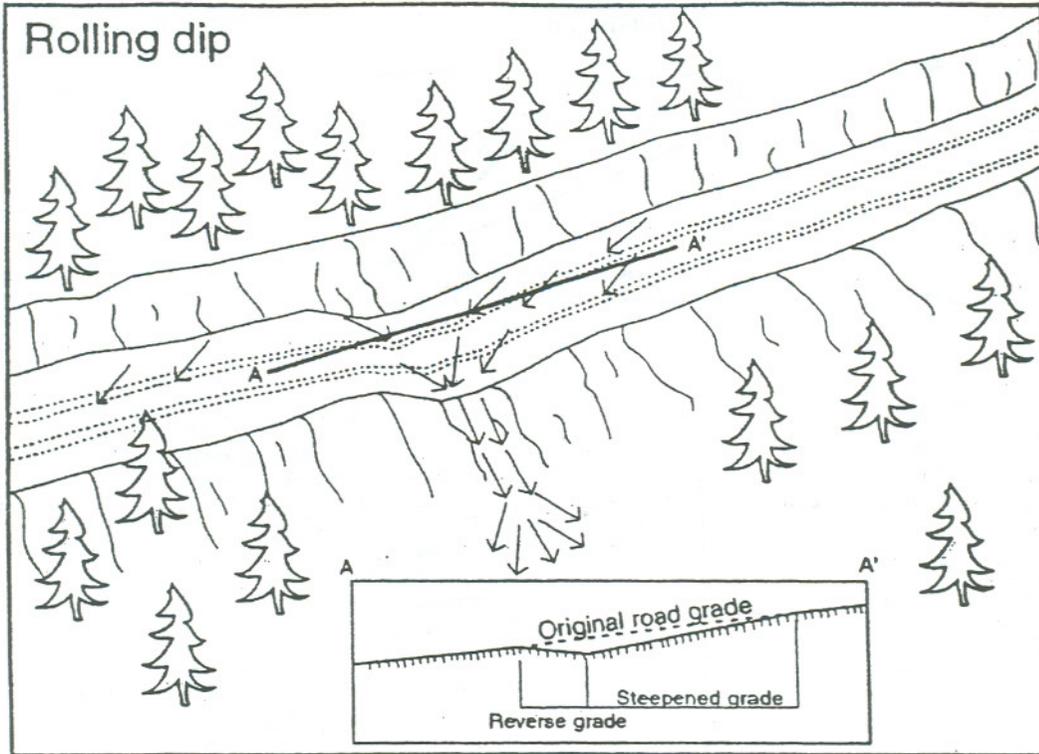
¹ Total excavated volume includes permanently excavated material and temporarily excavated materials used in backfilling upgraded stream crossings.

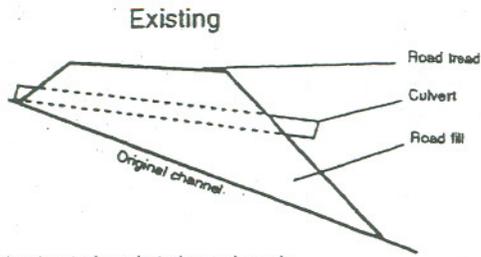
Mill Creek Upslope Road Sediment Reduction Project
Road Reach Location Map
T15N, R15W, Sec 21,22,23,26,27,28,33,34,35,36
Quads: Bailey Ridge, Navarro, Cold Springs, Philo; Medocino Co.



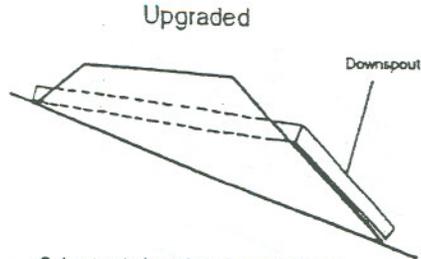




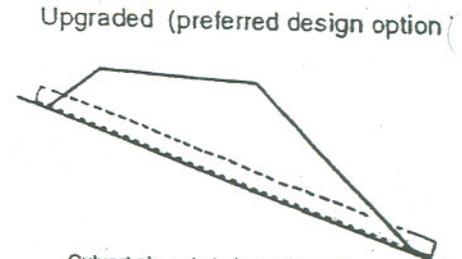




Culvert not placed at channel grade
 Culvert outlet does not extend past base of road fill

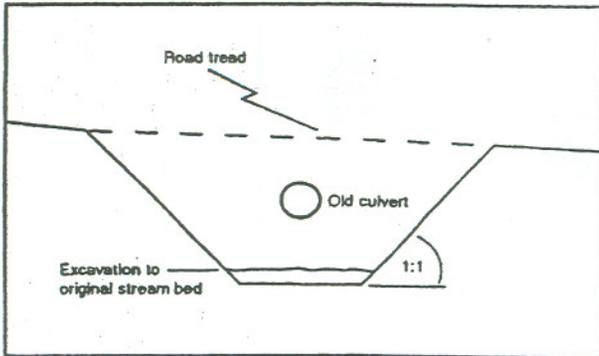


Culvert not placed at channel grade
 Downspout added to extend outlet past road fill

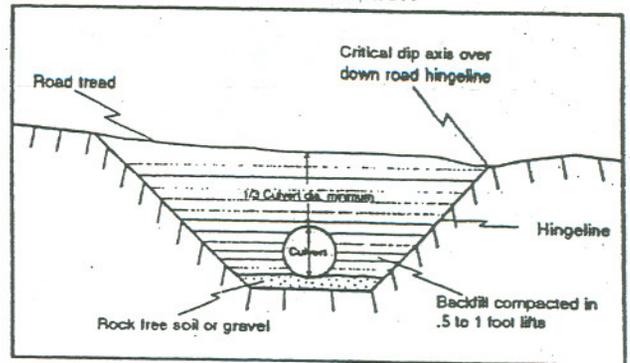


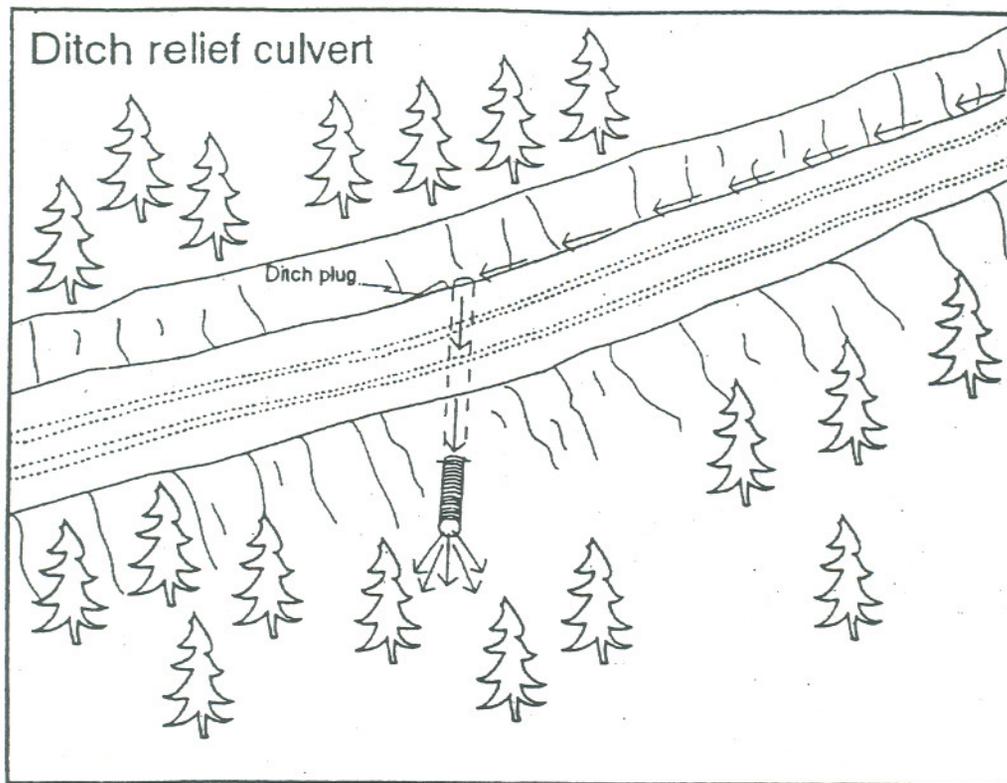
Culvert placed at channel grade
 Culvert inlet and outlet resting on or partially in the original stream bed

Excavation in preparation for upgrading culverted stream crossing



Upgraded stream crossing culvert installation





Cross sections of typical installations

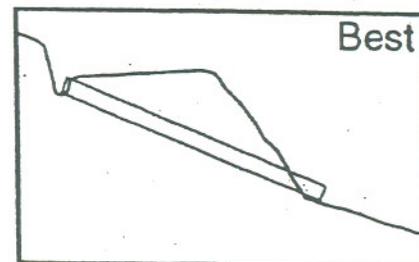
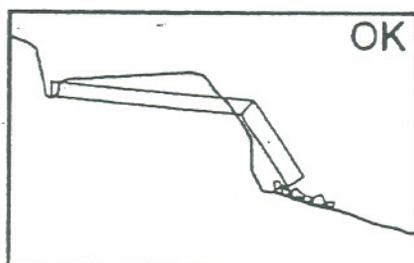
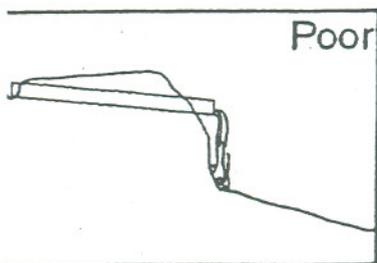


Exhibit 1: Staff Recommendation for the Navarro Watershed Restoration Plan Implementation, Phase V
(File No. 98-055-06, October 5, 2006)

California Department of Fish and Game

Natural Diversity Database

Selected Elements by Common Name

Possible Species within the Bailey Ridge, Cold Springs, Navarro, Philo and Surrounding Quads for:

Mill Creek Upslope Sediment Reduction Project

T15N, R15W, Sec 21-23, 26-28, 33-36; Mendocino County

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS/R-E-D
1 American manna grass <i>Glyceria grandis</i>	PMPOA2Y080			G5	S1.3?	2/3-1-1
2 American peregrine falcon <i>Falco peregrinus anatum</i>	ABNKD06071	Species of Concern	Endangered	G4T3	S2	
3 Baker's goldfields <i>Lasthenia macrantha ssp. bakeri</i>	PDAST5L0C4	Species of Concern		G3T2	S2.2	1B/2-2-3
4 Behren's silverspot butterfly <i>Speyeria zerene behrensii</i>	IILEPJ6088	Endangered		G5T1	S1	
5 Blasdale's bent grass <i>Agrostis blasdalei</i>	PMPOA04060	Species of Concern		G2	S2.2	1B/3-2-3
6 Bolander's beach pine <i>Pinus contorta ssp. bolanderi</i>	PGPIN04081	Species of Concern		G5T3	S3.2	1B/2-2-3
7 California red-legged frog <i>Rana aurora draytonii</i>	AAABH01022	Threatened		G4T2T3	S2S3	SC
8 California sedge <i>Carex californica</i>	PMCYP032D0			G5	S2?	2/3-1-1
9 Coastal Brackish Marsh	CTT52200CA			G2	S2.1	
10 Coastal Terrace Prairie	CTT41100CA			G2	S2.1	
11 Coastal and Valley Freshwater Marsh	CTT52410CA			G3	S2.1	
12 Contra Costa goldfields <i>Lasthenia conjugens</i>	PDAST5L040	Endangered		G1	S1.1	1B/3-3-3
13 Grand Fir Forest	CTT82120CA			G1	S1.1	
14 Humboldt Bay owl's-clover <i>Castilleja ambigua ssp. humboldtiensis</i>	PDSCR0D402	Species of Concern		G4T2	S2.2	1B/2-2-3
15 Humboldt milk-vetch <i>Astragalus agnicidus</i>	PDFAB0F080	Species of Concern	Endangered	G1	S1.1	1B/3-3-3
16 Lyngbye's sedge <i>Carex lyngbyei</i>	PMCYP037Y0			G5	S2.2	2/2-2-1
17 Mendocino Pygmy Cypress Forest	CTT83161CA			G2	S2.1	
18 Mendocino bush mallow <i>Malacothamnus mendocinensis</i>	PDMAL0Q0D0	Species of Concern		GX	SX	1A/ *
19 Mendocino coast Indian paintbrush <i>Castilleja mendocinensis</i>	PDSCR0D3N0	Species of Concern		G2	S2.2	1B/2-2-2
20 Navarro roach <i>Lavinia symmetricus navarroensis</i>	AFCJB19023			G5T1T2	S1S2	SC
21 North Coast semaphore grass <i>Pleuropogon hooverianus</i>	PMPOA7Y031	Species of Concern	Threatened	G1	S1.1	1B/3-3-3

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS/R-E-D
22 Northern Coastal Bluff Scrub	CTT31100CA			G2	S2.2	
23 Northern Coastal Salt Marsh	CTT52110CA			G3	S3.2	
24 Pacific gilia <i>Gilia capitata ssp. pacifica</i>	PDPLM040B6			G5T?	S?	1B/2-2-2
25 Point Arena mountain beaver <i>Aplodontia rufa nigra</i>	AMAF01011	Endangered		G5T1	S1	SC
26 Point Reyes checkerbloom <i>Sidalcea calycosa ssp. rhizomata</i>	PDMAL11012	Species of Concern		G5T2	S2.2	1B/2-2-3
27 Pomo bronze shoulderband <i>Helminthoglypta arrosa pomoensis</i>	IMGASC2033			G2T1	S1	
28 Roderick's fritillary <i>Fritillaria roderickii</i>	PMLIL0V0M0	Species of Concern	Endangered	G1Q	S1.1	1B/3-3-3
29 Sphagnum Bog	CTT51110CA			G3	S1.2	
30 bald eagle <i>Haliaeetus leucocephalus</i>	ABNKC10010	Threatened	Endangered	G4	S2	
31 coast fawn lily <i>Erythronium revolutum</i>	PMLILOU0F0			G4	S2.2	2/2-2-1
32 coast lily <i>Lilium maritimum</i>	PMLIL1A0C0	Species of Concern		G2	S2.1	1B/2-3-3
33 coastal bluff morning-glory <i>Calystegia purpurata ssp. saxicola</i>	PDCON040D2	Species of Concern		G4T2	S2.2	1B/2-2-3
34 deceiving sedge <i>Carex saliniformis</i>	PMCYP03BY0	Species of Concern		G2	S2.2	1B/2-2-3
35 foothill yellow-legged frog <i>Rana boylei</i>	AAABH01050	Species of Concern		G3	S2S3	SC
36 glandular western flax <i>Hesperolinon adenophyllum</i>	PDLIN01010	Species of Concern		G2	S2.3	1B/2-2-3
37 great burnet <i>Sanguisorba officinalis</i>	PDROS1L060			G5?	S2.2	2/2-2-1
38 leafy-stemmed mitrewort <i>Mitella caulescens</i>	PDSAX0N020			G5	S2.3	2/2-1-1
39 long-beard lichen <i>Usnea longissima</i>	NLLEC5P420			G4	S2S3.1	
40 maple-leaved checkerbloom <i>Sidalcea malachroides</i>	PDMAL110E0	Species of Concern		G3	S3.2	1B/2-2-2
41 northern goshawk <i>Accipiter gentilis</i>	ABNKC12060	Species of Concern		G5	S3	SC

Exhibit 1: Staff Recommendation for the Navarro Watershed Restoration Plan Implementation, Phase V
(File No. 98-055-06, October 5, 2006)

California Department of Fish and Game
Natural Diversity Database
Selected Elements by Common Name

Possible Species within the Bailey Ridge, Cold Springs, Navarro, Philo and Surrounding Quads for:
Mill Creek Upslope Sediment Reduction Project
T15N, R15W, Sec 21-23, 26-28, 33-36; Mendocino County

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS/R-E-D
42 northwestern pond turtle <i>Emys (=Clemmys) marmorata marmorata</i>	ARAAD02031	Species of Concern		G3G4T3	S3	SC
43 osprey <i>Pandion haliaetus</i>	ABNKC01010			G5	S3	SC
44 pink salmon <i>Oncorhynchus gorbuscha</i>	AFCHA02010			G5	S1	SC
45 pink sand-verbena <i>Abronia umbellata ssp. breviflora</i>	PDNYC010N2	Species of Concern		G5T2	S2.1	1B/2-3-2
46 purple-stemmed checkerbloom <i>Sidalcea malviflora ssp. purpurea</i>	PDMAL110FL	Species of Concern		G5T2	S2.2	1B/2-2-3
47 pygmy cypress <i>Cupressus goveniana ssp. pigmaea</i>	PGCUP04032	Species of Concern		G2T2	S2.2	1B/2-2-3
48 pygmy manzanita <i>Arctostaphylos mendocinoensis</i>	PDERI04280			G1	S1?	1B/3-2-3
49 red tree vole <i>Arborimus pomo</i>	AMAFF10030	Species of Concern		G3	S3	SC
50 small groundcone <i>Boschniakia hookeri</i>	PDORO01010			G5	S1S2	2/3-1-1
51 southern torrent salamander <i>Rhyacotriton variegatus</i>	AAAAJ01020	Species of Concern		G3G4	S2S3	SC
52 steelhead-northern California esu <i>Oncorhynchus mykiss irideus</i>	AFCHA0209Q	Threatened		G5T2	S2	
53 supple daisy <i>Erigeron supplex</i>	PDAST3M3Z0	Species of Concern		G1	S1.1	1B/3-2-3
54 swamp harebell <i>Campanula californica</i>	PDCAM02060	Species of Concern		G2	S2.2	1B/2-2-3
55 tidewater goby <i>Eucyclogobius newberryi</i>	AFCQN04010	Endangered		G3	S2S3	SC
56 tricolored blackbird <i>Agelaius tricolor</i>	ABPBXB0020	Species of Concern		G2G3	S2	SC
57 western tailed frog <i>Ascaphus truei</i>	AAABA01010	Species of Concern		G4	S2S3	SC

APPENDIX B
MITIGATION MEASURES, MONITORING AND REPORTING PROGRAM FOR
THE 2004 FISHERIES RESTORATION GRANT PROGRAM

MITIGATION

I. AESTHETICS

No specific mitigation measures are required to protect aesthetics.

II. AGRICULTURE RESOURCES

No specific mitigation measures are required to protect agricultural resources.

III. AIR QUALITY

No specific mitigation measures are required to protect air quality.

IV. BIOLOGICAL RESOURCES

General Measures for Protection of Biological Resources

- 1) **Timing.** To avoid impacts to aquatic habitat the activities carried out in the restoration program typically occur during the summer dry season.
 - a) Work around streams will be confined to the period of July 1 through November 1 or the first rainfall. This is to take advantage of low stream flows and avoids the spawning and egg/alevin incubation period of salmon and steelhead.
 - b) Upslope work generally occurs during the same period as stream work. Road decommissioning and other sediment reduction activities are dependent on soil moisture content. Work may be delayed at some sites after July 1 to allow soils to dry out adequately; equipment access and effectiveness is inhibited by wet conditions.
 - c) The permissible work window for individual work sites will be further constrained as necessary to avoid the nesting or breeding seasons of birds and terrestrial animals. At most sites with potential for raptor (including northern spotted owls) and migratory bird nesting, if work is conditioned to start after July 31, potential impacts will be avoided and no surveys will be required. For work sites that might contain nesting marbled murrelets, the starting date will be September 15 in the absence of surveys. The work window at individual work sites could be advanced if surveys determine that nesting birds will not be impacted.

- d) For restoration work that could affect swallow nesting habitat (such as removal of culverts showing evidence of past swallow nesting), construction will occur after August 31 to avoid the swallow nesting period. Alternatively, the suitable bridge nesting habitat will be netted before initiation of the breeding season to prevent nesting. Netting must be installed before any nesting activity begins, generally prior to March 1. Swallows must be excluded from areas where construction activities cause nest damage or abandonment.
 - e) Planting of seedlings shall begin after December 1, or when sufficient rainfall has occurred to ensure the best chance of survival of the seedlings, but in no case after April 1.
- 2) During all activities at project work sites, all trash that may attract predators shall be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.
 - 3) 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. Stationary equipment such as motors, pumps, generators, compressors, and welders located within the dry portion of the stream channel or adjacent to the stream, will be positioned over drip-pans. Vehicles will be moved out of the normal high water area of the stream prior to refueling and lubricating. The contractor shall ensure that contamination of habitat does not occur during such operations. Prior to the onset of work, DFG shall ensure that the contractor has prepared a plan to allow a prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
 - 4) The contractor shall ensure that the spread or introduction of invasive exotic plants shall be avoided to the maximum extent possible. When practicable, invasive exotic plants at the work site shall be removed.
 - 5) 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.
 - 6) Any equipment work within the stream channel shall be performed in isolation from the flowing stream. If there is any flow when the work is done, the contractor shall construct coffer dams upstream and downstream of the excavation site and divert all flow from upstream of the upstream dam to downstream of the downstream dam. The coffer dams may be constructed with clean river gravel or sand bags, and may be sealed with sheet plastic. Sand bags and any sheet plastic shall be removed from the stream upon

project completion. Clean river gravel may be left in the stream, but the coffer dams must be breached to return the stream flow to its natural channel.

- 7) For minor actions, where the disturbance to construct coffer dams to isolate the work site would be greater than to complete the action (for example, placement of a single boulder cluster), then measures will be put in place immediately downstream of the work site to capture suspended sediment. This may include installation of silt catchment fences across the stream, or placement of a filter berm of clean river gravel. Silt fences and other non-native materials will be removed from the stream following completion of the activity. Gravel berms may be left in place after breaching, provided they do not impede the stream flow.
- 8) 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.
- 9) If any wildlife is encountered during the course of construction, said wildlife shall be allowed to leave the construction area unharmed, and shall be flushed, hazed, or herded in a safe direction away from the project site.
- 10) Any red tree vole nests encountered at a work site will be flagged and avoided during construction.
- 11) For any work sites containing western pond turtles, foothill yellow-legged frogs or tailed frogs, the contractor shall provide to the DFG contract manager for review and approval, a list of the exclusion measures that will be used at their work site to prevent take or injury to any individual pond turtles or frogs that could occur on the site. The contractor shall ensure that the approved exclusion measures are in place prior to construction. Any turtles or frogs found within the exclusion zone shall be moved to a safe location upstream or downstream of the work site, prior to construction.
- 12) All habitat improvements shall be done in accordance with techniques in the "*California Salmonid Stream Habitat Restoration Manual*." The most current version of the manual is available at: <http://www.dfg.ca.gov/habitats>.

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

Rare Plants

The work sites for the 2004 grants projects are within the range of a variety of rare plant species. The plant species found on a State or Federal special status list that might be associated with the 2004 grants projects, was determined from a search of DFG's Natural Diversity Database. Because of the large number of widely scattered work sites proposed, it is not feasible to survey individual work sites in advance and still be able to implement the restoration projects, due to time limits on the availability of restoration funds. Lists of special status plant species that might occur at individual work sites are presented in Appendix A. Past experience with grants projects from previous years has shown that the potential for adverse impacts on rare plants at salmonid restoration work sites is very low. Few sites surveyed for rare plants between 1999 and 2003 were found to have rare plant colonies; disturbance of rare plants was avoided in all cases. In order to avoid impacts to rare plants during the 2004 grants projects, the following mitigation measures will be implemented:

- 1) DFG will survey all work sites for rare plants prior to any ground disturbing activities. Rare plant surveys will be conducted following the "Guidelines for Assessing the Effects of Proposed Developments on Rare and Endangered Plants and Plant Communities" (DFG, 2000). These guidelines are available on the web at: http://www.dfg.ca.gov/hcpb/species/stds_gdl/survmonitr.shtml.
- 2) If any special status plant species are identified at a work site, DFG will require one or more of the following protective measures to be implemented before work can proceed:
 - a) Fencing to prevent accidental disturbance of rare plants during construction,
 - b) On-site monitoring by a qualified biologist during construction to assure that rare plants are not disturbed, and
 - c) Redesign of proposed work to avoid disturbance of rare plants.
- 3) If it becomes impossible to implement the project at a work site without potentially significant impacts to rare plants, then activity at that work site will be discontinued.
- 4) DFG shall ensure that the contractor or responsible party is aware of these site-specific conditions, and will inspect the work site before, during, and after completion of the action item.

California Freshwater Shrimp (*Syncaris pacifica*)

Of the 93 work sites proposed as part of the 2004 grants program, 19 occur within the range of California freshwater shrimp (CFS) (Lagunitas Cr. Sediment Control, Redwood Cr. Sediment Control MMWD Lands, Redwood Cr. Sediment Control within Mt. Tamalpais State Park, San Geronimo Cr. Bank Stabilization, Walker Cr. Watershed Enhancement Program 2, Eticuera Cr. Bioengineering, Cloud Ridge Road Upslope Sediment Reduction, Dutch Bill Cr. Road Erosion Prevention, Dutch Bill Cr. Fish-Way Access, Green Valley Cr. Coho Enhancement, Hulbert Cr. Pool Enhancement, Lower Austin Cr. Migration Improvement, Old Cazadero Road Erosion Control, Salmon Cr. Pool Habitat, SSCRC D Carriger Cr. Habitat Barrier Modification, Sweetwater Springs Passage Improvement, Upper Wine Cr. Passage Improvement, Willow Cr. Watershed Sediment Reduction, Willow Cr. Road Erosion Control) (Appendix A). The range of the CFS includes Marin, Napa, and Sonoma counties, excluding the Gualala River watershed. Eight of these projects (Lagunitas Cr. Sediment Control, Redwood Cr. Sediment Control MMWD Lands, Redwood Cr. Sediment Control within Mt. Tamalpais State Park, Cloud Ridge Road Upslope Sediment Reduction, Dutch Bill Cr. Road Erosion Prevention, Old Cazadero Road Erosion Control, Willow Cr. Watershed Sediment Reduction, Willow Cr. Road Erosion Control) have no potential to impact CFS because they involve no instream work. Based on the nature of the habitat at the other 11 sites, and their location in their watersheds, it is possible that CFS could occur at those sites. Therefore, the potential for impacts to CFS will be mitigated by application of the following measures in streams where CFS are known to inhabit:

- 1) Qualified DFG personnel will survey each site for CFS before allowing work to proceed and where appropriate, prior to issuance of a Streambed Alteration Agreement. In site locations where CFS are present, DFG will require the contractor to implement the mitigation measures listed below. If necessary mitigation measures cannot be implemented or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential impacts to CFS or their habitat, then activity at that work site will be discontinued.
 - a. Equipment work will be performed only in riffle, shallow run, or dry habitats, avoiding low velocity pool and run habitats occupied by CFS, an endangered species. "Shallow" run habitat is defined as a run with a maximum water depth, at any point, less than 12 inches, and without undercut banks or vegetation overhanging into the water.
 - b. Hand placement of logs or rocks will be permitted in pool or run habitat in stream reaches where CFS are known to be present only if the placement will not adversely affect CFS and their habitat.
 - c. Care shall be taken during placement or movement of materials in the stream to prevent any damage to undercut stream banks and to minimize

- damage to any streamside vegetation. Streamside vegetation overhanging into pools or runs shall not be modified.
- d. No log or rock weirs (including vortex rock weirs) shall be constructed that would span the full width of the low flow stream channel. Vegetation shall be incorporated with any structures involving rocks or logs to enhance migration potential for CFS,
 - e. DFG must be notified at least one week in advance of the date on which work will start in the stream, so that a qualified DFG biologist can monitor activities at the work site. All work in the stream shall be stopped immediately if it is determined by DFG that the work has the potential to adversely impact on the CFS or its habitat. Work shall not recommence until DFG is satisfied that there will be no impact on the CFS.
 - f. The contractor is required to notify the U. S. Fish and Wildlife Service (USFWS) four weeks before work is scheduled to begin at the site, and provide access for USFWS to inspect the work if requested. The contractor will implement any additional mitigation requested by USFWS.

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

While all of the work proposed under this program will enhance habitat for one or more of these species, 69 of the 93 work sites proposed as part of the 2004 grants program will involve instream work in their habitat (Appendix A). In order to avoid any potential for negative impacts to these species the following measures will be implemented:

- 1) Project work within the wetted stream shall be limited to the period between July 1 and November 1, or the first significant fall rainfall. This is to take advantage of low stream flows and to avoid the spawning and egg/alevin incubation period of salmon and steelhead. Whenever possible, the work period at individual sites shall be further limited to entirely avoid periods when salmonids are present (for example, in a seasonal creek, work will be confined to the period when the stream is dry).
- 2) No heavy equipment shall operate in the live stream, except as may be necessary to construct coffer dams to divert stream flow and isolate the work site.
- 3) Work must be performed in isolation from the flowing stream. If there is any flow when the work is done, the operator shall construct coffer dams upstream and downstream of the excavation site and divert all flow from upstream of the upstream dam to downstream of the downstream dam. The coffer dams may be constructed with clean river gravel or sand bags, and may be sealed with sheet plastic. Sand bags and any sheet plastic shall be removed from the stream upon project completion. Clean river gravel may be

left in the stream, but the coffer dams must be breached to return the stream flow to its natural channel.

- 4) For minor actions, where the disturbance to construct coffer dams to isolate the work site would be greater than to complete the action (for example, placement of a single boulder cluster), measures will be put in place immediately downstream of the work site to capture suspended sediment. This may include installation of silt catchment fences across the stream, or placement of filter berm of clean river gravel. Silt fences and other non-native materials will be removed from the stream following completion of the activity. Gravel berms may be left in place after breaching, provided they do not impede the stream flow.
- 5) The channel shall not be excavated for the purpose of isolating the workspace from flowing water.
- 6) The operator shall obtain a biologist, with all necessary State and Federal permits, to rescue any fish within work sites prior to dewatering. Rescued fish shall be moved to the nearest appropriate site on the stream. A record shall be maintained of all fish rescued and moved, and the record shall be provided to DFG.
- 7) If it is necessary to divert flow around the work site, either by pump or by gravity flow, the suction end of the intake pipe shall be fitted with fish screens meeting DFG and NMFS criteria to prevent entrainment or impingement of small fish. Any turbid water pumped from the work site itself to maintain it in a dewatered state shall be disposed of in an upland location where it will not drain directly into any stream channel.
- 8) Any disturbed banks shall be fully restored upon completion of construction. Revegetation shall be done using native species. Planting techniques can include seed casting, hydroseeding, or live planting methods using the techniques in the latest version of the *California Salmonid Stream Habitat Restoration Manual*.
- 9) Suitable large woody debris removed from fish passage barriers that is not used for habitat enhancement, shall be left within the riparian zone so as to provide a source for future recruitment of wood into the stream.
- 10) If for some reason these mitigation measures cannot be implemented, or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential impacts to anadromous salmonids or their habitat, then activity at that work site will be discontinued.

California Red-Legged Frog (*Rana aurora draytonii*)

Fourteen of the work sites proposed as part of the 2004 grants program are within potential habitat for the California red-legged frogs (CRLF) (Appendix A). Activities proposed for the 14 sites (Redwood Cr. Sediment Control MMWD Lands, Redwood Cr. Sediment Control within Mt. Tamalpais State Park, Walker Cr. Watershed Enhancement Program 2, Burton Bridge Barrier Removal, Dairy Cr. Upslope Erosion Control, Fiscalini Bank Stabilization, Wolff Vineyards Bank Restoration, Pescadero Cr. Park Complex, Tarwater Cr. Sediment Reduction, Alpine Cr. Fish Ladder Maintenance, El Capitan Arizona Crossing Replacement, Lower Austin Cr. Migration Improvement, Salmon Cr. Pool Habitat, Willow Cr. Watershed Sediment Reduction) will not remove or degrade CRLF habitat; however, precautions will be required to avoid the potential for take of CRLF while using heavy equipment at these sites. To avoid this potential impact, the following mitigation measures will be implemented:

- 1) A biologist approved by the USFWS shall survey the work site at least two weeks before the onset of activities. If CRLF, tadpoles, or eggs are found, the approved biologist shall contact the USFWS for approval to move the animals out of the work site. If the USFWS approves moving animals, the approved biologist shall be allowed sufficient time to move CRLF from the work site before work activities begin. Only USFWS-approved biologists shall participate in the capture, handling, and monitoring of CRLF. If the USFWS does not approve moving CRLF out of the work area, the DFG will drop activities at the work site from the project.
- 2) Before any construction activities begin at a work site that may contain CRLF, a USFWS-approved biologist shall conduct a training session for all construction personnel. At a minimum the training shall include a description of the CRLF and its habitat, the importance of the CRLF and its habitat, the general measures that are being implemented to conserve the CRLF as they relate to the work site, and the work site boundaries where construction may occur.
- 3) At any work site that may contain CRLF, all fueling and maintenance of vehicles, other equipment, and staging areas shall occur at least 20 meters from any riparian habitat or water body. The contractor shall ensure contamination of habitat does not occur during such operations. Prior to the onset of work, DFG shall ensure that the contractor has prepared a plan to allow a prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
- 4) A USFWS-approved biologist shall be present at the work site until such time as all removal of CRLF, instruction of workers, and habitat disturbance associated with the restoration project have been completed. The USFWS-

approved biologist shall have the authority to halt any action that might result in the loss of any CRLF or its habitat. If work is stopped, the USFWS-approved biologist shall immediately notify DFG and the USFWS.

- 5) Ground disturbing activities in potential CRLF habitat shall be restricted to the period between July 1 and October 15.
- 6) If a work site is temporarily dewatered by pumping, intakes shall be completely screened with wire mesh not larger than five millimeters to prevent CRLF from entering the pump system. Water shall be released or pumped downstream, at an appropriate rate, to maintain downstream flows during construction. Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow with the least disturbance to the substrate.
- 7) A USFWS-approved biologist shall permanently remove from within the project work site, any individuals of exotic species, such as bullfrogs, centrarchid fishes, and non-native crayfish, to the maximum extent possible. The contractor shall have the responsibility that such removals are done in compliance with the California Department of Fish and Game Code.
- 8) If for some reason these mitigation measures cannot be implemented or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential impacts to CRLF or their habitat, then activity at that work site will be discontinued.

Least Bell's Vireo (*Vireo bellii pusillus*)

Of the 93 work sites proposed as part of the 2004 grants program, none could potentially affect suitable habitat for the Least Bell's Vireo (Appendix A). None of the activities proposed for these sites will significantly degrade existing vireo habitat, but the potential exists for the noise from heavy equipment work and the harvesting of willow branches for revegetation at these sites to disrupt vireo nesting. To avoid this potential impact, the following mitigation measures will be implemented:

- 1) Work shall not begin within one quarter mile of any site with known or potential habitat for the Least Bell's Vireo until after September 15.
- 2) Harvest of willow branches at any site with potential habitat for the Least Bell's Vireo will not occur between March 1 and September 15.
- 3) The work window at individual work sites may be modified, if protocol surveys determine that nesting birds do not occur within 0.25 miles of the site during the breeding season.

- 4) The DFG shall ensure that the contractor or responsible party is aware of this site-specific condition, and will inspect the work site before, during, and after completion of the action item.
- 5) If for some reason these mitigation measures cannot be implemented or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential impacts to Least Bell's Vireo or their habitat, then activity at that work site will be discontinued.

Marbled Murrelet (*Brachyrampus marmoratus*)

The marbled murrelet is listed as endangered under CESA and threatened under ESA. Activities to protect and restore habitat will not remove or degrade suitable habitat for marbled murrelets, however nesting birds could be disturbed by the noise from heavy equipment required for projects such as culvert removal or placement of large woody debris.

Of the 93 work sites proposed as part of the 2004 grants program, 12 are in potentially suitable habitat for the marbled murrelet (Morrison Cr. Fish Passage Improvement, Peacock Cr. LDA Modification, Salt Cr. Riparian Restoration, Bull Cr. Salmonid Restoration and Riparian Revegetation, Grizzly Cr. Tributary Stream Restoration, Rex's Wing Dam Enhancement, South Humboldt Bay Coastal Resources Protection, Yager Cr. Channel Restoration, Alpine Cr. Fish Ladder Maintenance, Pescadero Cr. Park Complex, Tarwater Cr. Sediment Reduction, Indian Cr. Sediment Control) (Appendix A). None of the activities proposed for these sites will remove or degrade marbled murrelet habitat, but the potential exists for noise from heavy equipment work at these sites to disrupt marbled murrelet nesting. To avoid this potential impact, the following mitigation measures will be implemented:

- 1) Adverse effects can be avoided by limiting heavy equipment work within 0.25 mile of marbled murrelet habitat to the period between September 16 and March 23.
- 2) Work shall not begin within 0.25 mile of any site with occupied or unsurveyed suitable marbled murrelet habitat between March 24 and September 15.
- 3) The work window at individual work sites near suitable habitat may be modified, if protocol surveys determine that habitat quality is low and occupancy is very unlikely (*may affect but not likely to adversely affect*).
- 4) If for some reason these mitigation measures cannot be implemented or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential adverse effects to marbled murrelet or their habitat, then activity at that work site will be discontinued.

Northern Spotted Owl (*Strix occidentalis caurina*)

The northern spotted owl is listed as threatened under ESA. Restoration activities should not alter habitat for northern spotted owls, however nesting birds could be disturbed by the noise from heavy equipment during projects such as culvert removal or placement of large woody debris. Disturbance can be avoided by limiting heavy equipment work within 0.25 miles of suitable spotted owl habitat to the period between August 1 and January 31.

Of the 93 work sites proposed as part of the 2004 grants program, 55 are in potentially suitable habitat for the northern spotted owl (Appendix A). None of the activities will remove, downgrade, or degrade spotted owl habitat, but the potential exists for heavy equipment work at these sites to disturb spotted owl nesting. To avoid this potential effect, the following mitigation measures will be implemented:

- 1) Work at any site within 0.25 miles of suitable habitat for the northern spotted owl will not occur from February 1 to July 31.
- 2) The work window at individual work sites may be advanced prior to July 31, if protocol surveys determine that suitable habitat is unoccupied.
- 3) If for some reason these mitigation measures cannot be implemented or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential impacts to northern spotted owls or their habitat, then activity at that work site will be discontinued and CDFG will reinitiate consultation with FWS.

Willow Flycatcher (*Empidonax traillii*)

Of the 93 work sites proposed as part of the 2004 grants program, one could potentially affect suitable habitat for the willow flycatcher by the harvesting of willow branches for riparian planting and construction of live willow mattresses and live willow walls (Bull Cr. Salmonid Restoration and Riparian Revegetation) (Appendix A). None of the activities proposed for these sites will significantly degrade existing willow flycatcher habitat, but the potential exists for the noise from heavy equipment work or harvesting of revegetation material at these sites to disrupt willow flycatcher nesting. To avoid this potential impact, the following mitigation measures will be implemented:

- 1) Heavy equipment work shall not begin within one quarter mile of any site with known or potential habitat for the willow flycatcher until after August 31. Heavy equipment work shall not begin within one quarter mile of any site with known or potential habitat for the southwestern willow flycatcher until after September 15.

- 2) Harvest of willow branches at any site with potential habitat for the willow flycatcher will not occur between May 1 and August 31. Harvest of willow branches at any site with potential habitat for the southwestern willow flycatcher will not occur between May 1 and September 15.
- 3) The work window at individual work sites may be modified, if protocol surveys determine that nesting birds do not occur within 0.25 miles of the site during the breeding season.
- 4) No more than 1/3 of any willow plant shall be harvested annually. Care shall be taken during harvest not to trample or over harvest the willow sources.
- 5) DFG shall ensure that the contractor or responsible party is aware of this site-specific condition, and will inspect the work site before, during, and after completion of the action item.
- 6) If for some reason these mitigation measures cannot be implemented or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential impacts to willow flycatcher or their habitat, then activity at that work site will be discontinued.

Point Arena Mountain Beaver (*Aplodontia rufa nigra*)

Of the 93 projects proposed as part of the 2004 grants program, one occurs within the range of the PAMB (Appendix A). Of those projects, 92 have no potential to adversely affect PAMB because no work will occur in any habitat used by PAMB. The other one project within the range of the PAMB, (Garcia River-Lower Mainstem Bank Stabilization), has the potential to adversely impact PAMB because work will occur in or near habitats potentially used by PAMB. To avoid potential impacts to PAMB from these projects, the following mitigation measures will be implemented:

- 1) Qualified DFG personnel will survey each work site for PAMB. Qualification of surveyors, survey protocols, and reporting will conform to USFWS's *Draft Guidelines for Project-Related Habitat Assessments and Surveys for Point Arena Mountain Beaver*. Per the *Guidelines*, if the activity status of a burrow is in doubt, or if there is unsurveyed potential habitat, PAMB active presence will be assumed.
- 2) For work sites where PAMB active presence is confirmed or assumed, all protective measures prescribed by USFWS's *Draft Point Arena Mountain Beaver Standard Protection Measures for No-Take Determinations* will be followed, through issuance of a Streambed Alteration Agreement and/or directives to the contractor by the DFG Contract Manager. The protective measures most pertinent to DFG salmonid habitat improvement projects include:

- a. No operation of noise generating equipment (e.g. chainsaws) within 100 feet of active burrows during the breeding season (December 15 – June 30).
 - b. No operation of mechanical equipment (e.g backhoes, excavators) within 100 feet of active burrows during the breeding season (December 15 – June 30), and within 50 feet the remainder of the year.
 - c. No ground disturbance (e.g. dumping of boulders) within 500 feet of active burrows during breeding season, and within 100 feet the remainder of the year. No severe ground disturbance (e.g. driving of bridge piles, blasting) within 500 feet of active burrows at any time.
 - d. No habitat modification (e.g. vegetation removal) within 400 feet of active burrows.
 - e. No vegetation modification or removal, or construction of permanent barriers (e.g. fences) at any location or time that may disrupt dispersal or movement of PAMB.
 - f. No vehicular or foot traffic within 25 feet of active burrows, and no alteration of water drainage or hydrology in active burrow areas.
- 3) DFG will require that the Contract Manager must be notified at least one week in advance of the date on which work will start, so that a qualified DFG biologist can monitor activities at the work site. If the necessary protective measures cannot be implemented at a work site, then no work at the site will occur.

V. CULTURAL RESOURCES

Ground-disturbance will be required to implement the project at some work sites that have the potential to affect cultural resources. This potential impact will be avoided through implementation of the following mitigation measures:

- 1) DFG will contract with a qualified archaeologist(s) to complete cultural resource surveys at any sites with the potential to be impacted prior to any ground-disturbing activities. Cultural resource surveys will be conducted using standard protocols.
- 2) If cultural resource sites are identified at a site, DFG will require one or more of the following protective measures to be implemented before work can proceed: a) Fencing to prevent accidental disturbance of cultural resources during construction, b) on-site monitoring by a cultural resource professional during construction to assure that cultural resources are not disturbed, c) redesign of proposed work to avoid disturbance of cultural resources.
- 3) DFG shall report any previously unknown historic or archeological remains discovered at a site to the U. S. Army Corps of Engineers as required in the anticipated Regional General Permit.

- 4) If it becomes impossible to implement the project at a work site without disturbing cultural resources, then activity at that work site will be discontinued.
- 5) DFG shall ensure that the contractor or responsible party is aware of these site-specific conditions, and will inspect the work site before, during, and after completion of the action item.

VI. GEOLOGY AND SOILS

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

- 1) Bare soil will be seeded, mulched, and planted as necessary, using best management practices described in the salmonid restoration handbook.
- 2) Soil will only be compacted to the extent necessary to reduce any surface erosion that may occur in the first heavy rainfall.
- 3) DFG shall ensure that the contractor or responsible party is aware of these site-specific conditions, and will inspect the work site before, during, and after completion of the action item.

VII. HAZARDS AND HAZARDOUS MATERIALS

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

- 1) The contractor shall have dependable radio or phone communication on-site to be able to report any accidents or fire that might occur.
- 2) Heavy equipment that will be used in these activities will be in good condition and will be inspected for leakage of coolant and petroleum products and repaired, if necessary, before work is started.

- 3) **Work with heavy equipment will be performed in isolation from flowing water, except as may be necessary to construct coffer dams to divert stream flow and isolate the work site.**
- 4) **All equipment operators will be trained in the procedures to be taken should an accident occur. Prior to the onset of work, DFG shall ensure that the contractor has prepared a plan to allow a prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.**
- 5) **All activities performed in or near a stream will have absorbent materials designed for spill containment and cleanup at the activity site for use in case of an accidental spill.**
- 6) **All fueling and maintenance of vehicles, other equipment, and staging/storage areas shall be located at least 20 meters from any riparian habitat or water body. The contractor shall ensure contamination of habitat does not occur during such operations.**
- 7) **Stationary equipment such as motors, pumps, generators, compressors, and welders, located within the dry portion of the stream channel or adjacent to the stream, will be positioned over drip-pans.**
- 8) **All internal combustion engines shall be fitted with spark arrestors.**
- 9) **The contractor shall have an appropriate fire extinguisher(s) and fire fighting tools (shovel and axe at a minimum) present at all times when there is a risk of fire.**
- 10) **Vehicles shall not be parked in tall grass or any other location where heat from the exhaust system could ignite a fire.**
- 11) **The contractor shall follow any additional rules the landowner has for fire prevention.**

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

(Walker Creek), and this contamination is not in instream gravels or dredger tailings, instead it is from the bedrock; and therefore, not easily methylized, and not as bioavailable.

Given the limited geographical potential for encountering mercury contamination (from historic mining) within the geographic scope, and the limited number of projects within these areas that will either disturb the channel bottom or import gravels for instream restoration; the following avoidance and mitigation measures will be adhered to:

- 1) Any gravel imported from offsite will be from a source known to not contain historic hydraulic gold mine tailings, dredger tailings, or mercury mine waste or tailings.
- 2) For work which will disturb the channel bottom (grading and channel dredging) in areas that had historic hydraulic gold mining, or historic mercury mining (as outlined above), pre and post-project testing of macro invertebrate will be done. This testing will consist of:
 - a) Prior to project implementation, rapid bio-assessment and a total mercury bioassay of macro invertebrates (total mercury/mg) will be done directly upstream and downstream of the project site;
 - b) Immediately following implementation of the project, and for one additional season thereafter (i.e., two sampling events), complimentary rapid bio-assessment and a total mercury bioassay of macro invertebrates (total mercury/mg) will be done directly upstream and downstream of the project site. The results of these studies will be provided to a representative of the SWRCB.

VIII. HYDROLOGY AND WATER QUALITY

- 1) Work shall be conducted during the period of lowest flow.
- 2) Work shall be performed in isolation from flowing water. If there is any flow when the work is done, the contractor shall construct coffer dams upstream and downstream of the excavation site and divert all flow from upstream of the upstream dam to downstream of the downstream dam. The coffer dams may be constructed with clean river gravel or sand bags, and may be sealed with sheet plastic. Sand bags and any sheet plastic shall be removed from the stream upon project completion. Clean river gravel may be left in the stream, but the coffer dams must be breached to return the stream flow to its natural channel.
- 3) For minor actions, where the disturbance to construct coffer dams to isolate the work site would be greater than to complete the action (for example, placement of a single boulder cluster), then measures will be put in place

immediately downstream of the work site to capture suspended sediment. This may include installation of silt catchment fences across the stream, or placement of filter berm of clean river gravel. Silt fences and other non-native materials will be removed from the stream following completion of the activity. Gravel berms may be left in place after breaching, provided they do not impede the stream flow.

- 4) Before work is allowed to proceed at a site, DFG will inspect the site to assure that turbidity control measures are in place.

X. MINERAL RESOURCES

No specific mitigation measures are required for mineral resources.

XI. NOISE

Personnel shall wear hearing protection while operating or working near noisy equipment (producing noise levels ≥ 85 db, including chain saws, excavators and back hoes).

XII. POPULATION AND HOUSING

No specific mitigation measures are required for population and housing.

XIII. PUBLIC SERVICES

No specific mitigation measures are required for public services.

XIV. RECREATION

No specific mitigation measures are required for recreation.

XV. TRANSPORTATION/TRAFFIC

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

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

XVI. UTILITIES AND SERVICE SYSTEMS

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

MONITORING AND REPORTING

- 1) DFG Contract Manager will inspect the work site before, during, and after completion of the action item, to ensure that all necessary mitigation measures to avoid impacts are properly implemented.
- 2) Immediately after completion of each action item, the project details shall be documented as outlined in the latest version of the *California Salmonid Stream Habitat Restoration Manual*, Part VIII. This material as well as project monitoring and evaluation shall be made available to NMFS and USFWS upon request.
- 3) An annual report shall be submitted to NMFS and USFWS by December 30 of each year, which provides a summary of all restoration action items completed during the previous year. For road rehabilitation and culvert upgrade/removal action items, this report will include information on:
 - a) The miles of road decommissioned.
 - b) The miles of road made "hydrologically maintenance free."
 - c) The number of stream crossings upgraded.
 - d) The number of stream crossings removed and an estimate of cubic yards of sediment "saved."
 - e) The number of rocked fords constructed.
 - f) Documentation of compliance with applicable erosion control measures, including dates of project activities such as ground disturbance and implementation of erosion control measures.
 - g) Documentation of compliance with erosion control measures.
 - h) Documentation of the presence of listed and/or proposed for listing Pacific salmonids and dates of project activities in relation to potentially impacted life history stages.
 - i) Documentation of compliance with NMFS SWR performance criteria for fish passage and storm flow capacity for culverts.
- 4) Within three years of completion of instream action items accomplished under the anticipated Regional General Permit, DFG will evaluate 10 percent of each project type after at least one, but not more than three winter high flows. Each project type will have 10 percent of the individual projects randomly selected by DFG for evaluation. This evaluation shall be recorded on

standard habitat evaluation forms developed by DFG using procedures described in the "California Salmonid Stream Habitat Restoration Manual," Part VIII, Project Monitoring and Evaluation. The annual report to NMFS of completed action items described in number 3 above, shall also summarize the results of all restoration project evaluation completed during the previous year.

- 5) **DFG shall report any previously unknown historic or archeological remains discovered at a site to the U. S. Army Corps of Engineers as required in the anticipated Regional General Permit.**

STANDING COMMITTEES:
BUDGET & FISCAL REVIEW,
CHAIR
ENVIRONMENTAL QUALITY
GOVERNMENTAL ORGANIZATION
HEALTH
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SENATOR
WESLEY CHESBRO
SECOND SENATORIAL DISTRICT



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HOMES
SUB COMMITTEE NO. 3
HEALTH & HUMAN SERVICES
LABOR & VETERAN AFFAIRS

August 22, 2006

State Coastal Conservancy
Doug Bosco, Board Chair
1330 Broadway, 11th Floor
Oakland, CA 94612-2530

Dear Chairman Bosco:

I am writing to express my strong support of the proposed 2006 Navarro River Watershed Restoration Projects being submitted by Mendocino County Resource Conservation District to the Coastal Conservancy.

These projects, which help implement the recommendations of the Navarro Watershed Restoration Plan, include: 1) Mill Creek Upslope Road Sediment Reduction, which applies progressive road sediment reduction strategies to 6.0 miles of unimproved rural subdivision roads; 2) Navarro Watershed Monitoring, to provide stakeholders and public agencies with baseline data to assess the effectiveness of restoration activities at reducing sediment delivery to streams, and 3) Navarro Watershed Signs, to help educate the public and local rural communities about our connections to the Navarro River by posting the boundaries and important safety issues for recreational visitors.

As State Senator for the Second District and having the Navarro River Watershed located within my District's boundaries, I thank you for your favorable consideration of the Mendocino County Conservation District's proposal which will benefit the constituents within my district, the health of the Navarro Watershed, and the future of our water quality and fisheries habitat.

Sincerely,

WESLEY CHESBRO
State Senator, Second District

WC:lb

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AUG 29 2006

COASTAL CONSERVANCY
OAKLAND, CALIF.



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PH (916) 319-2001
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Assembly
California Legislature



PATTY BERG
ASSEMBLYMEMBER, FIRST DISTRICT

COMMITTEES:
AGING & LONG-TERM CARE, CHAIR
APPROPRIATIONS
HEALTH
WATER, PARKS & WILDLIFE

JOINT COMMITTEE:
FISHERIES & AQUACULTURE, CHAIR

SELECT COMMITTEES:
SUSTAINABILITY, CHAIR
WINE

August 21, 2006

Mr. Doug Bosco
Board Chair
State Coastal Conservancy
1330 Broadway, 11th Floor
Oakland, CA 94612-2530

Dear Mr. Bosco: *Doug*

I am writing to express my strong support for the proposed 2006 Navarro River Watershed Restoration Projects being submitted by the Mendocino County Resource Conservation District to the Coastal Conservancy.

These projects would help implement the recommendations of the Navarro Watershed Restoration Plan and include Mill Creek Upslope Road Sediment Reduction which applies progressive road sediment reduction strategies to 6 miles of unimproved rural roads; Navarro Watershed Monitoring which would supply stakeholders and public agencies with baseline data to access the effectiveness of restoration activities at reducing sediment delivery to streams; and Navarro Watershed Signs to educate the public and local communities about our connection to the Navarro River by posting boundaries and important safety information for recreational visitors.

I would appreciate your favorable consideration for these important projects which would benefit the constituents and environment of the First Assembly District.

Respectfully,

Patty Berg

PATTY BERG
Assemblywoman, 1st District

✓ Cc: Ms. Moira McEnespy, Project Manager, State Coastal Conservancy
Ms. Janet Olave, Executive Director, Mendocino County Resource Conservation District

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OAKLAND, CALIF

