EXHIBIT 4
CEQA DOCUMENTS

MITIGATED NEGATIVE DECLARATION
FOR
THE 2004 FISHERIES RESTORATION GRANT PROGRAM
DEPARTMENT OF FISH AND GAME

INCLUDING

- DFG PROJECT NOTICE OF DETERMINATION, JULY 7, 2004
- INITIAL STUDY / ENVIRONMENTAL CHECKLIST
- APPENDIX A – ACTION ITEMS PROPOSED FOR FUNDING
- EXHIBIT A – STATEMENT OF WORK – DUTCH BILL CREEK
- APPENDIX B - PROJECT "MITIGATION MEASURES, MONITORING AND REPORTING PROGRAM" FOR THE 2004 FISHERIES RESTORATION PROGRAM

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

# 2004052087	Helen Birss California Department of Fish and Game	(916) 327-8842
State Clearinghouse Number (If submitted to Clearinghouse)	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.

Signature (Public Agency) — July 7, 2004 Date — Branch Chief Title

Date received for filing at OPR:

RECEIVED
JUL 7 2004
STATE CLEARING HOUSE

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

Prepared By:

Bob Coey
Senior Biologist Supervisor
Central Coast Region

and

Gary Flosi
Senior Fish Habitat Supervisor
Northern California-North Coast Region

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 (NDDB) 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 NDDB 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 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.

ENVIRONMENTAL CHECKLIST FORM

1. Project Title: The 2004 Fishery Restoration Grants Program in Del Norte, Humboldt, Marin, Mendocino, Monterey, Napa, San Luis Obispo, San Mateo, Santa Barbara, Siskiyou, Sonoma, and Trinity Counties

2. Lead Agency Name and Address:

   California Department of Fish and Game
   Native Anadromous Fish and Watershed Branch
   830 S Street
   Sacramento, CA 95814-7023

3. Contact Person and Phone Number:

   Bob Coey
   (707) 944-5582
   Central Coast Region
   Post Office Box 47
   Yountville, CA 94599

   Gary Flosi
   (707) 725-1072
   Northern California-
   North Coast Region
   1455 Sandy Prairie Ct. Ste J
   Fortuna, CA 95540

   Mary Larson
   (562) 342-7186
   South Coast Region
   4665 Lampson Avenue
   Los Alamitos, CA 90720

4. Project Location: Various sites in Del Norte, Humboldt, Marin, Mendocino, Monterey, Napa, San Luis Obispo, San Mateo, Santa Barbara, Siskiyou, Sonoma, and Trinity counties (Appendix A).

5. Project Sponsor's Name and Address:
   California Department of Fish and Game
   Native Anadromous Fish and Watershed Branch
   830 S Street
   Sacramento, CA 95814-7023

6. General Plan Designation: Various

7. Zoning: Various

8. Description of Project: Implementation of 93 major action items for restoration of anadromous salmonid habitat (Appendix A). These action items include measures to improve anadromous fish passage, reduce erosion and sedimentation, enhance instream habitat, improve water quality and improve juvenile survival.

9. Surrounding Land Uses and Setting: Briefly describe the project's surroundings: Primarily forest lands used for timber production. Some action items will be located in agricultural lands.

10. Other Public Agencies Whose Approval Is Required: U.S Army Corps of Engineers, North Coast Regional Water Quality Control Board, Bay Area Regional Water Quality Control Board, Central Coast Regional Water Quality Control Board, Los Angeles Regional Water Quality Control Board.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

	Aesthetics		Agriculture Resources		Air Quality
	Biological Resources		Cultural Resources		Geology /Soils
	Hazards & Hazardous Materials		Hydrology / Water Quality		Land Use / Planning
	Mineral Resources		Noise		Population / Housing
	Public Services		Recreation		Transportation/Traffic
	Utilities / Service Systems		Mandatory Findings of Significance		

DETERMINATION: (To be completed by the Lead Agency)
On the basis of this initial evaluation:

	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
X	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	I find that the proposed project MAY have a A potentially significant impact@ or A potentially significant unless mitigated@ impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

for Larry Week, Chief, Native Anadromous Fish and Watershed Branch — Date 5/7/04

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?				X
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X
See attached explanations.				
II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				X
See attached explanations.				

III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?				X
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			X	
d) Expose sensitive receptors to substantial pollutant concentrations?				X
e) Create objectionable odors affecting a substantial number of people?				X
See attached explanations.				

IV. BIOLOGICAL RESOURCES -- Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				X

IV. BIOLOGICAL RESOURCES (continued):				
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			X	
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X
See attached explanations.				
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?				X
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X
d) Disturb any human remains, including those interred outside of formal cemeteries?				X
See attached explanations.				

VI. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				X
ii) Strong seismic ground shaking?				X
iii) Seismic-related ground failure, including liquefaction?				X
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?				X
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
See attached explanations.				

VII. HAZARDS AND HAZARDOUS MATERIALS B Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			X	
See attached explanations.				

VIII. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?			X	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				X
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?				X
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?				X
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?				X
f) Otherwise substantially degrade water quality?			X	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?				X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j) Inundation by seiche, tsunami, or mudflow?				X
See attached explanations.				

IX. LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X
See attached explanations.				
X. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X
See attached explanations.				
XI. NOISE B Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				X
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				X
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		X		

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X
See attached explanations.				
XII. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X
See attached explanations.				
XIII. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?			X	
Police protection?			X	
Schools?			X	
Parks?			X	
Other public facilities?			X	
See attached explanations.				

XIV. RECREATION --				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X
See attached explanations.				
XV. TRANSPORTATION/TRAFFIC -- Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?				X
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				X
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
e) Result in inadequate emergency access?				X
f) Result in inadequate parking capacity?				X
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X
See attached explanations.				

XVI. UTILITIES AND SERVICE SYSTEMS Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project=s projected demand in addition to the provider=s existing commitments?				X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project=s solid waste disposal needs?				X
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X
See attached explanations.				

EXPLANATION OF RESPONSES TO INITIAL STUDY ENVIRONMENTAL CHECKLIST

I. AESTHETICS

a) The project will not have an adverse effect on a scenic vista. Such an impact will not occur because the project will stabilize, restore, and revegetate damaged and eroded sites to produce a more natural and esthetically pleasing appearance.

b) The project will not damage scenic resources such as trees, rock outcroppings, and historic buildings. Such an impact will not occur because the project will not disturb large trees or other scenic features in the process of restoring damaged sites.

c) The project will not substantially degrade the existing visual character or quality of the work sites and their surroundings. Such an impact will not occur because in most cases the restoration project will restore the natural character of disturbed sites. Where non-natural structures (such as fish screens) are constructed, they will be of small size and compatible with the appearance of with their surroundings.

d) The project will not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area of the worksites. Such an impact will not occur because none of the restoration project action items require installation of artificial lighting.

II. AGRICULTURE RESOURCES

a) The project will not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. Such an impact will not occur because most project worksites are located away from FMMP designated farmland. Project actions associated with farmland (such as fish screens) are designed to allow continued use of farmland with reduced impacts to anadromous salmonids.

b) The project will not conflict with existing zoning for agricultural use or a Williamson Act contract. Fish habitat restoration actions will not change existing land use.

c) The project will not involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland to non-agricultural use. Fish habitat restoration actions are either away from, or are compatible with, existing agricultural uses.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE --				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			X	
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				X
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				X
See attached explanations.				

III. AIR QUALITY

a) The project will not conflict with or obstruct implementation of the applicable air quality plan. Such an impact will not occur because implementation of the project does not create any features that would be a source of air pollution. Use of vehicles and heavy equipment during construction will be on a limited scope and a short duration and is not expected to adversely affect air quality.

b) The project will not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Such an impact will not occur because of the limited scope of construction activities and the fact that work sites are located in rural areas that are in overall attainment of air quality standards.

c) The project will not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors). Such an impact will not occur because the project involves no ongoing sources of air pollution.

d) The project will not expose sensitive receptors to substantial pollutant concentrations. Such an impact will not occur because the project will not significantly increase pollutant concentrations.

e) The project will not create objectionable odors affecting a substantial number of people. Project actions are designed to restore natural habitat conditions for salmonids, and will not create any stagnant water that might produce objectionable odors.

IV. BIOLOGICAL RESOURCES

a) The project will not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Fish and Wildlife Service. Such an impact will not occur because project activities are designed to improve and restore stream habitat, to provide a long-term benefit to both anadromous salmonids and other fish and wildlife. The project will be implemented in a manner that will avoid short-term adverse impacts to rare plants and animals and cultural resources during construction; the mitigation measures that will be implemented to avoid short-term impacts to rare plants and animals and cultural resources are described in Appendix B, Mitigation Measures, Monitoring and Reporting Program. As a result, mitigation measures will ensure that any potentially significant impacts are avoided or mitigated to below a level of significance.

b) The project will not have a substantial adverse effect on any riparian habitat or other sensitive natural communities identified in local or regional plans, policies and regulations, or by the California Department of Fish and Game or U. S. Fish and Wildlife Service. Such an impact will not occur because the project actions are designed to correct past habitat degradation and restore and enhance riparian habitat and associated upland habitats.

c) The project will not have a substantial adverse effect on Federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. The project actions will have either no effect on wetlands or will be beneficial to wetlands.

d) The project will not substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. The project will enhance the movement of anadromous fish by the replacement or removal of culverts and bridges that are barriers to fish migration.

e) The project will not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Such an impact will not occur because project actions are designed to restore and enhance biological resources. Some minor disturbance of grasses and shrubs will occur where stream structures are keyed into the streambanks. Care will be taken not to disturb any mature trees. Riparian vegetation will be reestablished where construction activities disturb existing plants, and additional native plants will be planted to enhance the riparian vegetation.

f) The project will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. Such a conflict will not occur because the project restoration actions will not have a significant adverse impact on any species or habitat. Project actions are designed to restore the natural character of the fish and wildlife habitat at the project work sites. The project specifically supports the California Salmon, Steelhead Trout and Anadromous Fisheries Program Act (Fish and Game Code Section 6900 et. seq.)

g) Species Impacts for the following species include (mitigation measures are included in Appendix B):

g i) Point Arena Mountain Beaver (*Aplodontia rufa nigra*). The Point Arena mountain beaver (PAMB) is a burrowing rodent found in coastal Mendocino County, in an area of approximately 24 square miles (from about 2 miles north of Bridgeport Landing south to about 5 miles south of the town of Point Arena, and from the coast to about 5 miles inland). Mountain beaver inhabit underground burrow systems, associated with moist areas with well drained soils and lush herbaceous vegetation. PAMB populations are typically found in riparian, coastal scrub, or dune scrub habitats; however they may occur in any habitat with brushy or herbaceous cover. PAMB presence is

evaluated by surveying for burrows of characteristic size and shape, with signs of recent activity.

Potential impacts to PAMB from salmonid habitat improvement projects include disruption of nesting or other activities due to equipment noise; collapse or damage to burrows from heavy equipment, riparian planting, or foot traffic; and removal of vegetation (such removal is usually temporary, but may nonetheless impact PAMB).

g ii) California freshwater shrimp (*Syncaris pacifica*). As an aquatic species California freshwater shrimp (CAFS) depend on the availability of slow moving perennial water and suitable habitat to survive. Habitat for CAFS as described in the Recovery Plan consists of:

- -Slow moving streams 12-36 inches in depth
- -Exposed live roots of trees such as willow or alder
- -Undercut banks greater than 6 inches
- -Overhanging woody debris or stream vegetation and vines including stinging nettles, grasses, vine maple and mint.

Migration of CAFS is not well understood, however it is speculated that CAFS require access to slow moving waters adjacent to continuous, stable, well vegetated stream banks, or deep stable undercuts banks during winter high flows.

Salmonid restoration projects typically enhance or create habitat that is also suitable for CAFS. Stable undercut banks, well vegetated with a variety of native plant species, alongside deep perennial pools, are components of healthy riparian ecology and the end result of many restoration projects. In addition, salmonid restoration projects can remove existing threats to CAFS by:

- Eliminating grazing in the riparian corridor
- Reclaiming riparian vegetation through plantings and increased setbacks in agricultural settings
- Removing summer dams (and culvert) and replacing summer crossings with bridges
- Improving road drainange and maintenance that reduces water and sediment delivery to streams
- Reversing the impacts of flood control practices by replacing vegetation and large woody debris, and by helping restore flood plains to reduce channelization
- Stabilizing banks with vegetation that promotes CAFS habitat
- Removing migration barriers

While salmonid restoration projects typically enhance or create these habitat and instream conditions that are favorable for CAFS and associated native aquatic species, project activities in wetted stream habitats may directly impact individuals when present. Whereas project activities in dry stream

habitats, will not have a direct impact on individuals. Where habitat exists, instream project activities may indirectly impact the species through the loss of habitat. Mitigation measures are implemented to avoid directly impacting individuals when present, however, some short term direct and indirect impacts can occur.

Direct impacts may include

- Short term degradation of water quality at project site resulting in reduction in feeding temporarily
- Addition of instream complex shelter (large and small woody debris, boulders, aquatic vegetation) resulting in temporary dislodgement from undercut banks and vegetation
- Dewatering of project site and movement of animals from preferred habitat to nearby suitable habitat during the project

Indirect impacts may include

- Short term loss of habitat until riparian responds
- Short term degradation of habitat
  - √ loss of unstable undercut banks
  - √ short term loss or degradation of overhanging riparian vegetation
- Introduction of migration barriers on one side of the stream

g iii) California Red-legged Frog *(Rana aurora draytonii)*. As an aquatic species, frogs are generally present in the riparian corridor year-round, utilizing both stream and bank habitat. Impacts to the species have the potential to occur during project implementation activities such as (but not limited to) channel dewatering, unscreened pumping, heavy equipment usage, work with hand tools, removal of riparian vegetation, spills from refueling vehicles, and reintroduction of non-native species into stream. Habitat removal and/or degradation is not the result of restoration projects. Typically removal of riparian vegetation for the purpose of implementing a project does not occur, but it minimal when it does. Many projects involve restoring the riparian corridor that is absent. More often, dewatering, heavy equipment usage, and work with hand tools occurs during project implementation. All impacts are temporary and can be minimized to avoid take of the species.

g iv) Least Bell's Vireo (*Vireo bellii pusillus*). Impacts to the species have the potential to occur when as a result of removal of riparian vegetation (willows and low shrubs) during the spring and summer or from disturbance within a 0.25 mile radius of next sites. Typically removal of riparian vegetation for the purpose of implementing a project does not occur, but is minimal when it does. Many projects involve restoring the riparian corridor that is absent. Removal of willow branches for revegetation at restoration sites has the potential to degrade existing vireo habitat. Noise from heavy equipment has to potential to cause nesting birds to abandon nests. All impacts are temporary and can be minimized to avoid take of the species.

g v) Tiger salamander (*Ambystoma tigrinum*). Impacts to the species are highly unlikely as most implementation projects occur in or near the stream and riparian corridor. Upslope projects are typically limited to road upgrading and decommissioning in areas that are steep, eroding, and often in areas vegetated with trees and shrubs. The species uses ponds and vernal pools for breeding and grassland habitat for estivation, both of which are usually not in proximity to anadromous fish-bearing streams.

V. CULTURAL RESOURCES

a) The project will not cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5. While ground disturbance will be required to implement the project at some work sites that have the potential to affect historical resources, this potential impact will be avoided through implementation of the protective measures presented in Appendix B, Mitigation Measures, Monitoring and Reporting Program. Resources identified during site-specific surveys will be protected before ground-disturbing activities are permitted at a site. As a result, mitigation measures will ensure that any potentially significant impacts are avoided or mitigated to below a level of significance.

b) The project will not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. While ground disturbance will be required to implement the project at some work sites that have the potential to affect archaeological resources, this potential impact will be avoided through implementation of the protective measures presented in Appendix B, Mitigation Measures, Monitoring and Reporting Program. Resources identified during site-specific surveys will be protected before ground-disturbing activities are permitted at a site. As a result, mitigation measures will ensure that any potentially significant impacts are avoided or mitigated to below a level of significance.

c) The project will not directly or indirectly destroy any unique paleontological resources or sites, or unique geologic features. While ground disturbance to implement the project at some work sites has the potential to affect these resources, this potential impact will be avoided through implementation of the protective measures presented in Appendix B, Mitigation Measures, Monitoring and Reporting Program. Resources identified during site-specific surveys will be protected before ground-disturbing activities are permitted at a site. As a result, mitigation measures will ensure that any potentially significant impacts are avoided or mitigated to below a level of significance.

d) The project will not disturb any human remains, including those interred outside of formal cemeteries. While ground disturbance will be required to implement the project at some work sites that have the potential to affect

these resources, this potential impact will be avoided through implementation of the protective measures presented in Appendix B, Mitigation Measures, Monitoring and Reporting Program. Resources identified during site-specific surveys will be protected before ground-disturbing activities are permitted at a site. As a result, mitigation measures will ensure that any potentially significant impacts are avoided or mitigated to below a level of significance.

VI. GEOLOGY AND SOILS

a i) The project will not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area, or based on other substantial evidence of a known fault. Such an impact will not occur because the project does not create any structures for human habitation.

a ii) The project will not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. Such an impact will not occur because the project does not create any structures for human habitation.

a iii) The project will not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction. Such an impact will not occur because the project does not create any structures for human habitation.

a iv) The project will not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. Such an impact will not occur because the project does not create any structures for human habitation.

b) The project will not result in substantial soil erosion or the loss of topsoil. Such an impact will not occur because implementation of the restoration project is designed to 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. The potential for substantial soil loss associated with road improvement and decommissioning will be avoided through implementation of the mitigation measures presented in Appendix B, Mitigation Measures, Monitoring and Reporting Program. As a result, mitigation measures will ensure that any potentially significant impacts are avoided or mitigated to below a level of significance.

c) Some project worksites are on unstable soils; however, the project will not increase the risk of landslides, lateral spreading, subsidence, liquefaction, or collapse. The project actions are designed to stabilize conditions at these sites in order to reduce sediment delivery to salmonid habitat. Actions implemented to stabilize sites may not be successful in all cases, but site instability will not be increased when compared to existing conditions.

d) Some project work sites will be located on expansive soil; however, the project will not create substantial risks to life or property. Such an impact will not occur because the project will create no habitations, and the majority of the restoration actions will not create rigid structures that could be damaged by expansive soils. The few rigid structures to be created by the project (such as fish screens) will be engineered to withstand expansive soils, if they are present.

e) The project will not create any sources of waste water requiring a septic system.

VII. HAZARDS AND HAZARDOUS MATERIALS

a) The project will not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Any potential significant hazard associated with the accidental release of coolant and petroleum products used with equipment during construction will be avoided through implementation of the mitigation measures presented in Appendix B, Mitigation Measures, Monitoring and Reporting Program. As a result, mitigation measures will ensure that any potentially significant impacts are avoided or mitigated to below a level of significance.

b) The project will not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into 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. The potential for accidental release will be reduced to a less than significant level through implementation of the mitigation measures presented in Appendix B, Mitigation Measures, Monitoring and Reporting Program. As a result, mitigation measures will ensure that any potentially significant impacts are avoided or mitigated to below a level of significance.

c) The project will not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Such impact is avoided because the project will not create any feature that will emit hazardous substances.

d) The project worksites are not located on any site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

e) No project work site is located within an airport land use plan or within two miles of a public airport or public use airport.

f) No project work site is located within the vicinity of a private airstrip.

g) The project will not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Except for the case of road decommissioning, the project has no effect on access. The planned decommissioning of selected unused wildland roads will not have a significant impact on emergency vehicle access.

h) The project will not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. At work sites requiring the use of heavy equipment, there is a small risk of an accidental spark from equipment igniting a fire. The potential for accidental fire will be reduced to a less than significant level through implementation of the mitigation measures presented in Appendix B, Mitigation Measures, Monitoring and Reporting Program. As a result, mitigation measures will ensure that any potentially significant impacts are avoided or mitigated to below a level of significance.

VIII. HYDROLOGY AND WATER QUALITY

a) The project will not violate any water quality standards or waste discharge requirements. There is the potential for minor short-term increase in turbidity during installation of instream structures or culvert removal, however the mitigation measures described in Appendix B Mitigation, Monitoring and Reporting will assure that the project actions are in compliance with water quality standards. As a result, mitigation measures will ensure that any potentially significant short-term impacts are avoided or mitigated to below a level of significance.

b) The project will not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. Upslope restoration activities will return drainage to historic patterns thereby decreasing surface runoff and increasing infiltration to the ground water.

c) The project will not substantially alter the existing drainage pattern of the work sites in a manner that would result in substantial erosion or siltation on- or off-site. Such an impact will not occur because the project actions are designed to produce decreased erosion overall. Instream habitat structures, such as boulder weirs or flow deflectors, will produce local redistribution of sediments. These structures will produce a local redistribution of bedload, facilitating the

deposition of spawning gravel in riffles, and improving scour to maintain pools for juvenile fish habitat. This local redistribution of bedload will not produce a net increase of erosion.

d) The project will not substantially alter the existing drainage pattern of the work sites, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. The project will decrease the risk of flooding through upslope restoration activities that will return drainage to historic patterns, thereby increasing infiltration and decreasing surface runoff.

e) The project will not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems, or provide substantial additional sources of polluted runoff. Such an impact will not occur because upslope restoration activities will stabilize slopes and return drainage to historic patterns, thereby decreasing surface runoff and decreasing the silt load delivered to streams in the area of the project.

f) The project will not substantially degrade water quality. During placement of stream habitat structures and culvert replacement, some minor turbidity may be generated. The potential for degradation of water quality will be reduced to a less than significant level through implementation of the mitigation measures presented in Appendix B, Mitigation Measures, Monitoring and Reporting Program. Some short-term minor increase in turbidity may also occur as the streambed around instream structures adjusts during the first high stream flow following activity completion. However, this is not expected to produce a significant increase over background turbidity. As a result, mitigation measures will ensure that any potentially significant short-term impacts to water quality are avoided or mitigated to below a level of significance.

g) The project will not place housing within a 100-year flood hazard area as mapped on any flood hazard delineation map. No housing will be created as part of this project.

h) The project will not place within a 100-year flood hazard area structures which would significantly impede or redirect flood flows. Culvert removal and replacement to be done as part of the project will remove existing impediments to flood flows. Instream habitat structures, such as boulder weirs, deflectors, and bank armor, are built to change the direction and velocity of stream flow. However, these structures are small (sized to affect conditions in the low flow channel) and will not impede flood flows.

i) The project will not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam. Such an impact will be avoided because all instream structures to be created are small and will not significantly impede flood flows.

j) The project will not expose people or structures to a significant risk of inundation by seiche, tsunami, or mudflow. Such an impact will not occur because project actions are designed to improve or stabilize conditions at the work sites. Upslope restoration actions will reduce the chance of mudflow by stabilizing disturbed areas, and restoring natural drainage patterns. Project work sites are not located in areas at risk to inundation by seiche or tsunami.

IX. LAND USE AND PLANNING

a) The project will not physically divide an established community. This impact will not occur because no culvert removal or road decommissioning is proposed in any established community.

b) The restoration activities that comprise this project do not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. Such an impact will not occur because the project's restoration activities are designed to be compatible with local land use plans and ordinances.

c) The project will not conflict with any applicable habitat conservation plans or natural community conservation plans. Such an impact will not occur because project actions are designed to improve aquatic habitat conditions without adversely affecting any other species or their habitats

X. MINERAL RESOURCES

a) The project will not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. Such an impact will not occur because project actions are only designed to stabilize and restore habitat and soils within the actions area.

b) The project will not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Such an impact will not occur because no mineral resource recovery sites occur at the project work sites.

XI. NOISE

a) The project will not result in exposure of persons to, or generation of noise levels in excess of, standards established in the local general plan or noise ordinance, or applicable standards of other agencies. There may be a minor temporary increase in noise levels at those work sites requiring the use of heavy equipment. While such short-term increase in noise will not produce a significant increase in the noise level in the general environment, there is a potential for equipment noise to affect workers in close proximity to equipment

producing noise levels ≥85 db, such as chainsaws or back-hoes. However, such an impact will not occur because personnel operating noisy equipment will be required to wear hearing protection. As a result, mitigation measures will ensure that any potentially significant noise impacts are avoided or mitigated to below a level of significance.

b) The project will not result in exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels. Such an impact will not occur because only minor amounts of groundborne vibration or noise will be generated short-term at those work sites requiring the use of heavy equipment.

c) The project will not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Such an impact will not occur because most project structures are passive (i.e., contain no moving parts). The only exceptions are the proposed fish screens, which will contain moving brushes to clean the screens. These brushes are driven by slow speed (10-15 RPM) water wheels and will not substantially increase ambient noise levels where installed.

d) The project will not result in a substantial temporary, or periodic, increase in ambient noise levels in the project vicinity above levels existing without the project. Such an impact will not occur because only minor amounts of noise will be generated temporarily at those work sites requiring the use of heavy equipment. At those sites near nesting or breeding sites for listed species, heavy equipment will only be used outside the sensitive periods for nesting or breeding, as described in Appendix B, Mitigation Measures, Monitoring and Reporting Program. As a result, mitigation measures will ensure that any potentially significant noise impacts are avoided or mitigated to below a level of significance.

e) None of the project work sites are located within two miles of a public airport or public use airport.

f) None of the project work sites are located within the vicinity of a private airstrip.

XII. POPULATION AND HOUSING

a) The project will not induce substantial population growth in an area, either directly or indirectly. Such an impact will not occur because the project will not construct any new homes, businesses, roads, or other human infrastructure.

b) The project will not displace any existing housing and will not necessitate the construction of replacement housing elsewhere.

c) The project will not displace any people and will not necessitate the construction of replacement housing elsewhere.

XIII. PUBLIC SERVICES

a) The project will not have any significant environmental impacts associated with new or physically altered governmental facilities. Issuance of restoration grants to government agencies could, in some cases, lead to minor increases in staffing to complete projects. Such increases will not lead to any significant adverse impacts, because the increases are short term, and no significant construction will be required to accommodate additional staff.

XIV. RECREATION

a) The project would not increase the use of existing neighborhood and regional parks, or other recreational facilities. Such an impact will not occur because the project actions will restore anadromous fish habitat and do not significantly alter human use or facilities at existing parks or recreational facilities. Overall, the Restoration Program is expected to increase recreation opportunities by assisting in restoring populations of anadromous fish.
b) The project does not include recreational facilities and does not require the construction or expansion of recreational facilities.

XV. TRANSPORTATION/TRAFFIC

a) The project will not cause a substantial increase of traffic, in relation to the existing traffic load and capacity of the street system. Such an impact will not occur because the project will result in only minor temporary increases in traffic to primarily wildland sites during implementation of habitat improvement measures.

b) The project will not exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways. Such an impact will not occur because the habitat improvement actions will not generate a significant amount of traffic at each individual work site and because the work sites are dispersed throughout the coastal counties.

c) The project will not result in any change in air traffic patterns.

d) The project will not alter roads in any way that will substantially increase hazards to transportation. The proposed project will reduce hazards to transportation, because the proposed project will correct and reduce landslide and erosion damage on the selected rural roads.

e) The project will not result in inadequate emergency access. Such an impact will not occur because during replacement of small road crossings, an alternate route for traffic will be provided around the construction.

f) The project will not significantly affect parking capacity or demand for parking.

g) The project will not conflict with adopted policies, plans, or programs supporting alternative transportation.

XVI. UTILITIES AND SERVICE SYSTEMS

a) The project will not produce wastewater.

b) The project will not require, or result in the construction of, new water or wastewater treatment facilities or expansion of existing facilities. Such an impact will not occur because the project will not produce wastewater.

c) The project will not cause significant adverse environmental effects associated with the construction of new storm water drainage facilities or expansion of existing facilities.

d) The project will have sufficient water supplies available to serve the project from existing entitlements and resources.

e) The project will not produce wastewater.

f) The project will not generate solid waste requiring disposal in a landfill.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE

a) The project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. Such a potential does not exist because the project will be implemented in a manner that will avoid short-term adverse impacts to rare plants and animals, and cultural resources during construction; the mitigation measures that will be implemented to avoid short-term impacts to rare plants and animals, and cultural resources are described in Appendix B, Mitigation Measures, Monitoring and Reporting Program. The Project activities will provide a long-term benefit to both anadromous salmonids and other fish and wildlife.

b) The project does not have adverse impacts that are individually limited, but cumulatively considerable. Cumulative adverse impacts will not occur because potential adverse impacts of the project are only minor and temporary in nature. It is the goal of the project that the beneficial effects of habitat enhancement actions will be cumulative over time and contribute to the recovery of listed anadromous salmonids.

c) The project does not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly. The habitat enhancement measures implemented as part of this project will contribute to improved water quality, increased soil stability, and the recovery of listed salmonids, all of which will be beneficial to human beings.

APPENDIX A

ACTION ITEMS PROPOSED FOR FUNDING

Table A-1. Exempt Project List

Proj #	Proj Type*	Project Title	Grant Recipient
100	AC	AmeriCorps - WSP	CCC - Fortuna
47	ALL	Adaptive Watershed Improvements 2003	DFG
118	CC	CCC Salmon Restoration Program	CCC - Fortuna
4	ED	Scott River Restoration/Education Project	Etna Union Elementary School
172	ED	Salmonid Riparian Education Project	Trinity County RCD
220	ED	Salmon in the Classroom Program	Eel River Salmon Restoration Project
226	ED	Mattole Watershed, Salmon, and Education Project	Mattole Restoration Council
250	ED	CCSE Education Program	Central Coast Salmon Enhancement, Inc.
261	ED	Salmonid Curriculum Development	Humboldt State University Foundation
61	MD	Coho Presence / no Presence Final Phase	DFG
62	MD	Juvenile Salmonid Use Freshwater Slough	DFG
71	MD	Sci Aid for Monitoring Program	DFG
75	MD	Salmon River Watershed Monitoring	Salmon River Restoration Council
170	MD	Regional Approach to Monitoring Abundance Trends	HSU Foundation
190	MD	Scott River Adult Coho & Steelhead Spawning Surveys	Siskiyou RCD
212	MD	Salmon River Community Weak Stocks Assessment	Salmon River Restoration Council
234	MD	Long-Term Coho Monitoring - Coastal Marin County	Point Reyes National Seashore Assn.
235	MD	Topanga Creek Watershed Monitoring	RCD Santa Monica Mountains
284	MD	Gualala River Assessment and Monitoring	Sotoyome RCD
290	MD	Russian River Coho Release and Monitoring	California Sea Grant
305	MD	Ancestry and Gene Flow O. mykiss Southern CA	Derek Girman
127	MO	Implementation and Effectiveness Restoration Projects	UC Cooperative Extension Sonoma County
137	MO	Watershed Mapping Lower Klamath River Tribs.	CCC - Del Norte
173	MO	Monitoring Changes in Stream Health	Mary Ann Madej
78	OR	Salmon River Watershed Organization Support	Salmon River Restoration Council
80	OR	Mid Klamath Watershed Council Organization Support	Mid Klamath Watershed Council
87	OR	Napa River - Rutherford Reach Organization Support	Napa County RCD
123	OR	ERWIG Organization and Support 04-06	ERWIG
133	OR	Coastal Streams Coordination Program	Rural Human Services
188	OR	Scott River Watershed Organization Support	Siskiyou RCD
251	OR	Rincon Creek Organization Support	Community Environmental Council
315	OR	CA Habitat Restoration Project Database 04-06	DFG NAFWB
86	PI	FishNet 4C	County of Marin
95	PI	Fish Habitat Specialists	CCC
224	PI	Five Counties Salmonid Conservation Program	County of Trinity
229	PI	Salt River Restoration - Feasibility Phase	Humboldt County RCD
277	PI	Tri-County Fish Team	Santa Barbara County Water Agency
51	PL	Archeological and Rare Plant Surveys	DFG
77	PL	Phase II Instream Restoration Design Lower Redwood	NPS - Golden Gate NRA
79	PL	Sugar Creek Watershed Road Assessment	Resource Management
101	PL	Shasta Groundwater Mgt. Planning Phase 1	Great Northern Corp
112	PL	Klamath - Shasta Water Substitution	Great Northern Corp
208	PL	Yontocket Slough Access and Estuarine Habitat	Michael Love and Associates
214	PL	Rincon Creek Watershed Plan	Santa Barbara County Water Agency
257	PL	County of Sonoma Department of Transportation	Sonoma County Roads Assessment
266	PL	Hollow Tree Creek Assessment Phase II	Trout Unlimited
274	PL	Big Springs Irrigation District Water Use Efficiency	Great Northern Corp
275	PL	Six Rivers Conservation Easement Planning	Northwest Resources
306	PL	Fish Habitat Inventory Sonoma Creek	Sonoma Ecology Center
318	PL	CA Coastal Watershed Assessment	DFG - NCNCR
30	RE	Upper Eel River Steelhead Hatchery Program	DFG
55	TE	Salmon River Watershed Education Program	Salmon River Restoration Council
85	TE	Bioengineering Techniques	Salmonid Restoration Federation
152	TE	SRF Conference 2005	Salmonid Restoration Federation
155	TE	Culvert and Road Drainage Practice Central Coast	Salmonid Restoration Federation

Table A-1. Exempt Project List

*	Project Type
AC	AmeriCorps Program only
ED	Education
HI	Instream Habitat Restoration
HR	Riparian Restoration
MD	Monitoring Projects (data)
MO	Project Monitoring Following Project Completion
OR	Watershed Organization Support
PI	Public Involvement
PL	Watershed Evaluation, Assessment, and planning
PM	Project Maintenance
RE	Cooperative Rearing
TE	Technical training
WC	Water Conservation Measures

Table A-2. Minor Action Items

Proj #	Proj Type*	Project Title	Grant Recipient
NOAA	HI	Elk River LWD Placement Habitat Improvement	CCC - North Coast District
Adapt	HR	Walker Creek Riparian Restoration	CCC - North Coast District
FEMA	PM	Ah Pah Creek Instream Structure Maintenance	CCC - North Coast District
FEMA	PM	High Prairie Creek Instream Structure Maintenance	CCC - North Coast District
FEMA	PM	Hunter Creek Instream Structure Maintenance	CCC - North Coast District
FEMA	PM	Maple Creek Instream Structure Maintenance	CCC - North Coast District
FEMA	PM	McGarvey Creek Instream Structure Maintenance	CCC - North Coast District
FEMA	PM	SF Winchuck River Instream Structure Maintenance	CCC - North Coast District
FEMA	PM	Sultan Creek Instream Structure Maintenance	CCC - North Coast District
FEMA	PM	Wilson Creek Instream Structure Maintenance	CCC - North Coast District
140	WC	Upper Mattole River Water Conservation	Mattole Restoration Council

*	Project Type
AC	AmeriCorps Program only
ED	Education
HI	Instream Habitat Restoration
HR	Riparian Restoration
MD	Monitoring Projects (data)
MO	Project Monitoring Following Project Completion
OR	Watershed Organization Support
PI	Public Involvement
PL	Watershed Evaluation, Assessment, and planning
PM	Project Maintenance
RE	Cooperative Rearing
TE	Technical training
WC	Water Conservation Measures

Total Trees = 10

Table A-3. Major Action Item List

Del Norte

Alexandre EcoDairy Farms Riparian - Morrison Creek
Elk Creek Instream Habitat Enhancement
Fourth Switchback Watershed Rehabilitation
Lower Terwer Creek Riparian Restoration
Morrison Creek Fish Passage Improvement
Peacock Creek LDA Modification
Rowdy Creek Instream Bank Stabilization
Salt Creek Riparian Restoration
South Fork Winchuck Watershed Improvement

Humboldt

Bear River Channel Restoration
Belleview Creek Crossing Replacement
Bull Creek Salmonid Restoration and Riparian Revegetation
Burr Creek Stream Bank Stabilization
China Creek Sediment Reduction Project
Coyote Creek Watershed Improvement
Daylighting of Jolly Giant Creek
E. Branch S. Fork Eel River Bank Stabilization
Golf Course Creek Bank Stabilization
Graham Gulch Culvert Replacement
Grizzly Creek Tributary Stream Restoration
Gunderth/Yager Creek Bank Stabilization
Hall/Mil Creek Fish Passage Improvement
Indian Creek Culvert Replacement with Bridge
Jacoby Creek Stream Bank Stabilization and Habitat Enhancement
Leggett Creek Road and Pond Decommissioning
Leggit Creek Fish Passage Project
Lindsay Creek at Burnt Stump Lane Restoration
Lindsay Creek Coho Overwintering
Lonestar Creek Site D-2 Crossing Replacement
Middle Van Duzen River Watershed Restoration
Painter Creek Culvert Replacement
Redwood Creek Road Decommissioning
Redwood Creek/Schroeder Property Bank Stabilization
Rex's Wingdam Enhancement
Salmon Creek Upslope Sediment Reduction HU-2004
Seely Creek Watershed Association 2003 Implementation
South Fork Bear Creek Culvert Replacement
South Fork Janes Creek Dam Removal
South Humboldt Bay Coastal Resources Protection Project
SouthMayd, Hollister Road Improvement
Upper Mattole Bank Stabilization
Upper Mattole LWD and Boulder Placement, 2004
Washington Gulch Crossing Replacement
Yager Creek Channel Restoration

Table A-3. Major Action Item List

Marin

Lagunitas Creek Sediment Control
Redwood Creek Sediment Control MMWD Lands
Redwood Creek Sediment Control within Mt. Tamalpais State Park
San Geronimo Creek Bank Stabilization Project
Walker Creek Watershed Enhancement Program (2)

Mendocino

8.5 Mile Road Decommissioning
Dooley Creek Restoration
Feliz Creek Road Erosion Implementation Project
Feliz Creek Stream Habitat Improvement Project
Forsythe Creek Riparian Revegetation Project
Frykman Gulch Migration Barrier and Erosion Control
Garcia River - Lower Mainstem Bank Stabilization
Gualala River Wood in the Stream Phase IV
Hayworth Creek and NF Noyo River LWD
Hollow Tree Creek Restoration - Phase Two
Little River Habitat Restoration
Lost River Creek Road Decommissioning
McNab Creek Road Erosion Project
Mill Creek Upslope Road Sediment Reduction
Robinson Creek Riparian Restoration Project
York Creek Road Erosion Implementation Project

Monterey

Garrapata Creek Watershed Restoration

Napa

Eticuera Creek Bioengineering

San Luis Obispo

Burton Bridge Barrier Removal Project
Dairy Creek Upslope Ersion Control
Fiscalini Bank Stabilization
Wolff Vineyards Bank Restoration Project

San Mateo

Alpine Creek Fish Ladder Maintenance
Pescadero Creek Park Complex
Tarwater Creek Sediment Reduction

Santa Barbra

El Capitan Canyon Arizona Crossing Replacement

Siskiyou

Indian Creek Sediment Control
Newton Enhancement Project
Young's Dam Fish Ladder Construction

Sonoma

Cloud Ridge Road Upslope Sediment Reduction Project
Dutch Bill Creek Fish-Way Access Project
Dutch Bill Creek Road Erosion Prevention
Green Valley Creek Coho Enhancement
Hulbert Creek Pool Enhancement

Table A-3. Major Action Item List

Lower Austin Creek Migration Improvement 2003-2004
Old Cazadero Road Erosion Control
Quarry Bridge Restoration Project
Salmon Creek Pool Habitat Project
SSCRCD Carriger Creek Habitat Barrier Modification 1
Sweetwater Springs Passage Improvement
Upper Wine Creek Passage Improvement
Willow Creek Project: Watershed Sediment Reduction
Willow Creek Road Erosion Control

Trinity

Hartman Erosion Control

EXHIBIT A
Garrapata Creek Watershed Restoration Implementation Project
STATEMENT OF WORK

Under direction from the Department of Fish and Game, the Contractor will:

1. The mouth of Garrapata Creek is located ten miles south of Carmel, California, immediately downstream of Highway 1. The project consists of the permanent decommissioning of 1.5 miles and upgrading 12.42 miles of inner gorge, mid-slope, and ridge-top roads in the Garrapata Creek Watershed. The estimate reduction of sediment to the steelhead stream as a result of the project is 24,270 cubic yards.

2. The project addresses 16 identified sites along 1.5 miles of road which will be decommissioned. The project addresses 74 identified sites along 12.42 miles of maintained road which will be upgraded. Of the total 90 sites identified, 34 sites are stream crossings, 28 sites are landslides, and 28 sites are other problems.

3. Road upgrading will consist of a variety of treatments including, but not limited to, installing rolling dips, berm drains, ditch relief culverts, and downspouts; rock road surfacing; and outsloping and insloping road surfaces. Road upgrades at stream crossings also employ a variety of treatments including, but not limited to, installing new culverts and replacing old culverts appropriately sized to accommodate the 100-year storm event, installing critical dips, and armoring stream crossings with rock to protect fill slopes.

4. Road decommissioning will consist of a variety of treatments including, but not limited to, installing cross drains, and excavation of fill slopes and crossings. Decommissioned sites will be stabilized by using a variety of techniques including, but not limited to, revegetation of locally obtained native species, hydroseeding with local native species, straw mulching, and armoring.

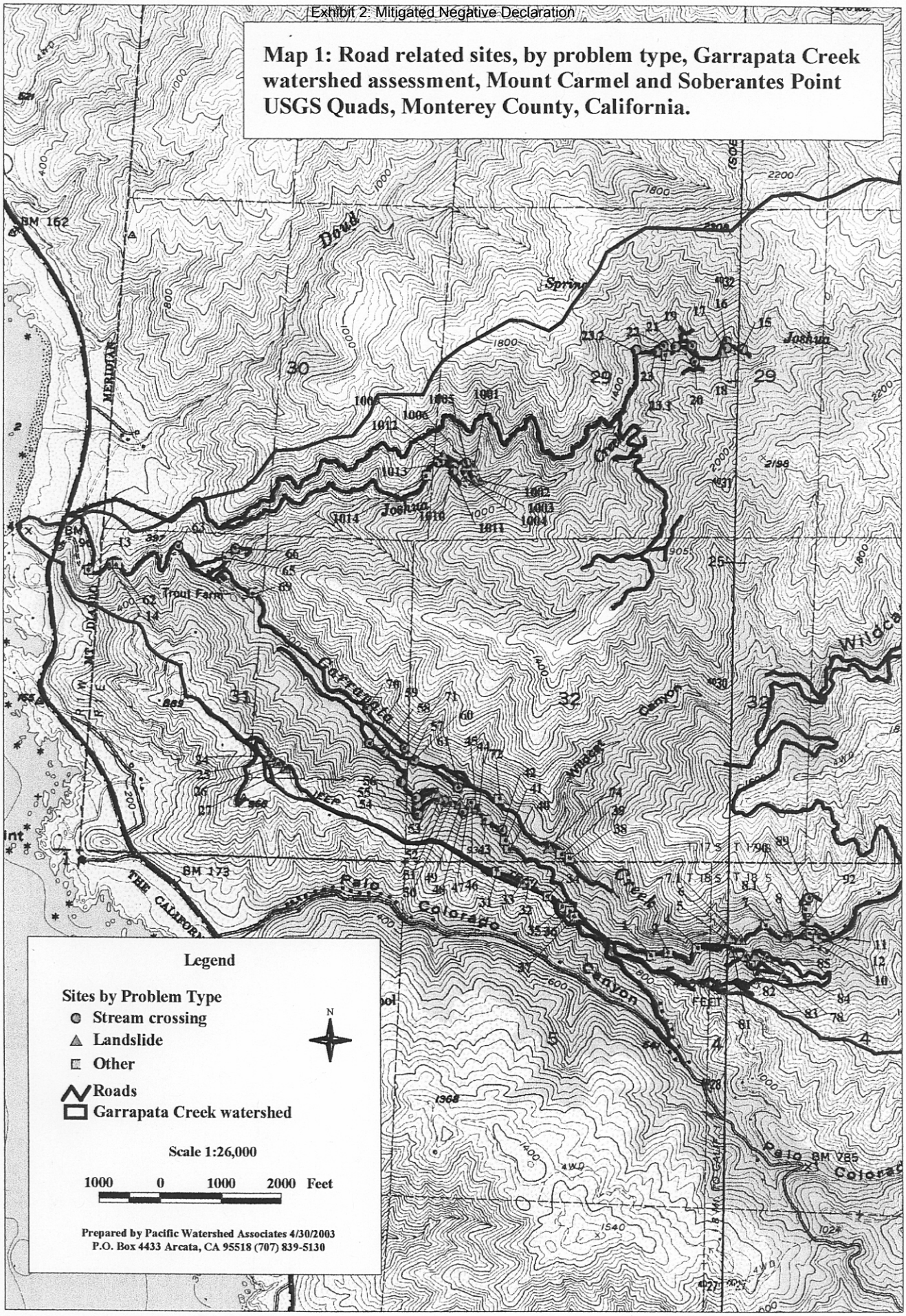
5. All fill soils will be compacted and stabilized to prevent erosion.

Table 2. Site specific treatment priorities for all road-related sediment sources in the Garrapata Creek watershed assessment area, Monterey, California.

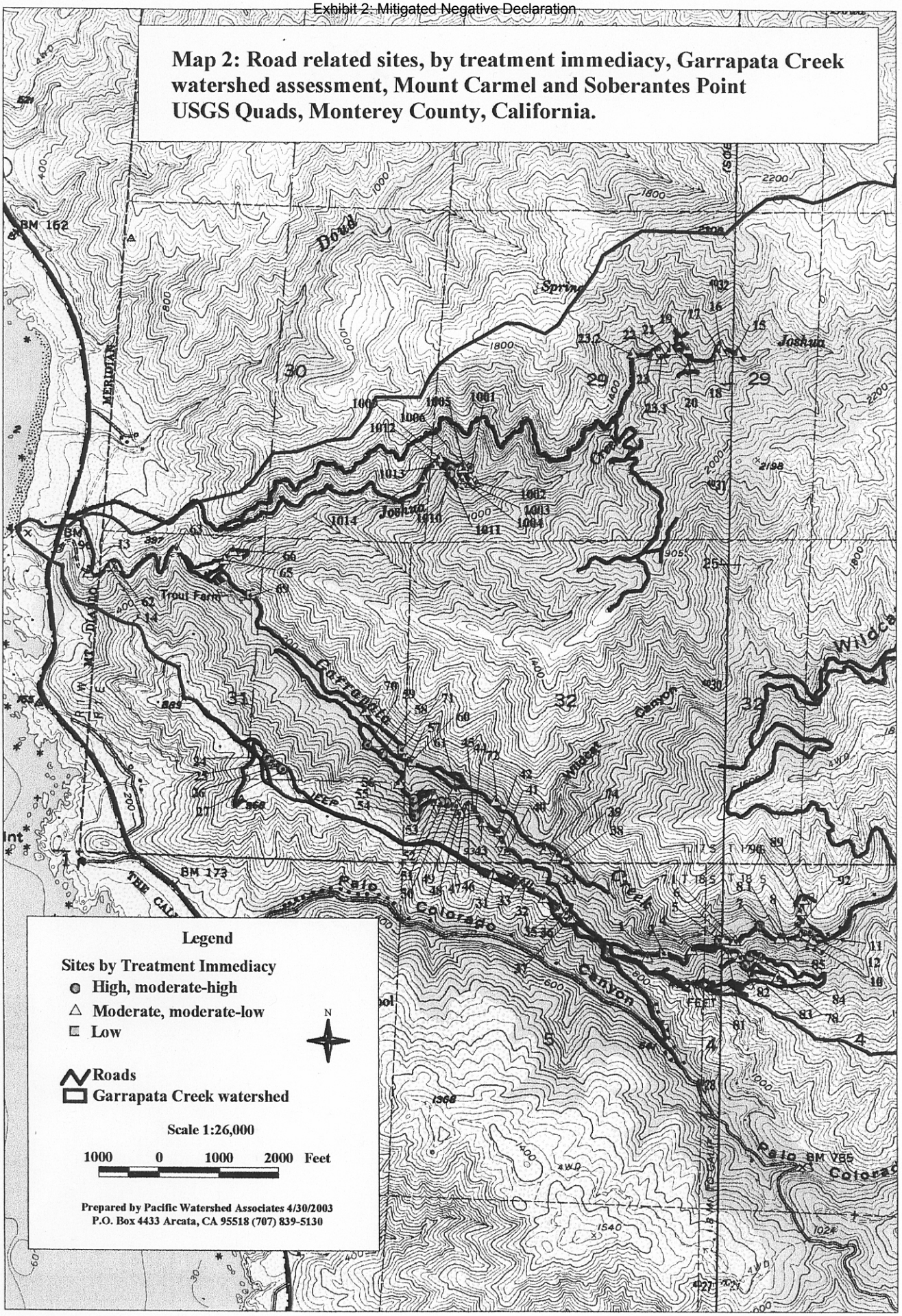
Treatment Priority	Upgrade sites (# and site #)	Decommission sites (# and site #)	Problem	Future sediment delivery (yds^3)	
				Site specific	Road surface
High	**5** (site #: 51, 54, 55, 58, 1012)	**2** (site #: 83, 1011)	7 stream crossings	1,668	1,806
Moderate High	**10** (site #: 5, 7, 24, 25, 27, 50, 56, 59, 1001, 1010)	**1** (site #: 84)	3 stream crossings, 7 landslides, 1 other	2,415	1,986
Moderate	**30** (site #: 4, 8.1, 11, 23.1, 31, 32, 33, 35, 36, 37, 38, 39, 41, 42, 44, 45, 47, 48, 52, 53, 57, 62, 65, 74, 78, 89, 92, 1002, 1004, 1013)	**8** (site #: 16, 17, 20, 21, 23.2, 81, 82, 85)	10 stream crossings, 13 landslides, 15 others	2,521	4,197
Moderate Low	**25** (site #: 1, 6, 7.1, 8, 10, 12, 13, 14, 26, 34, 40, 43, 46, 49, 61, 63, 66, 70, 72, 90, 1003, 1005, 1006, 1009, 1014)	**5** (site #: 15, 18, 19, 22, 23)	12 stream crossings, 8 landslide, 10 others	2,146	6,210
Low	**4** (site #: 2, 60, 69, 71)	**0**	2 stream crossings, 2 others	67	1,254
Total	**74**	**16**	**34 stream crossings, 28 landslides, 28 others**	**8,817**	**15,453**
				24,270	

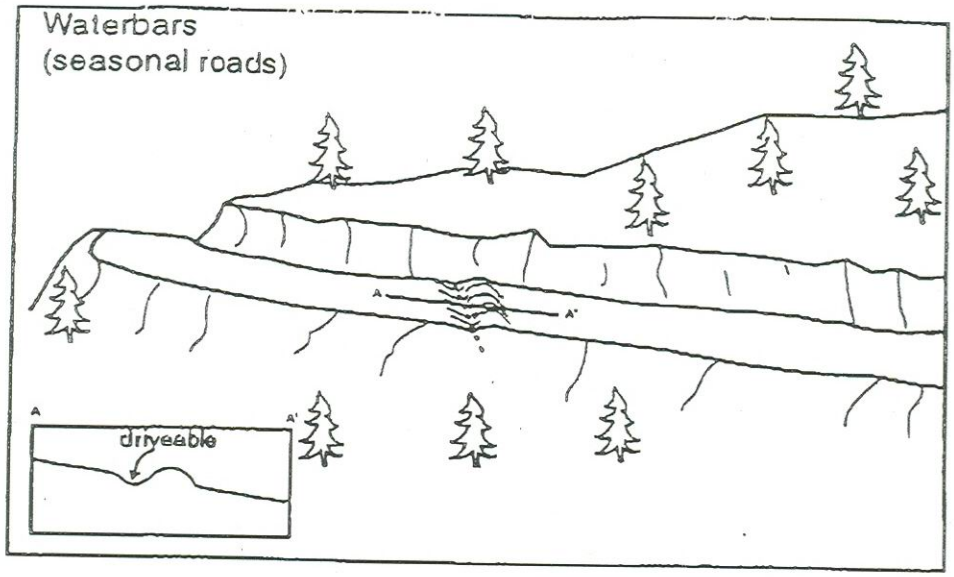
Table 3. Recommended treatments along all inventoried roads in the Garrapata Creek watershed assessment area, Monterey, California.

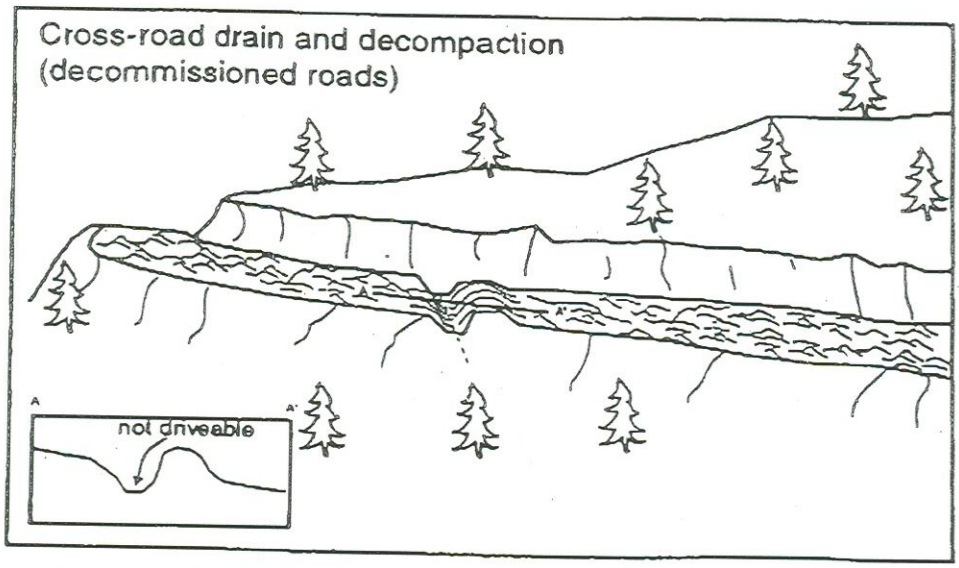
Treatment	No.	Comment	Treatment	No.	Comment
Critical dip	13	To prevent stream diversions	Outslope road	11	Outslope 4,118 feet of road to improve road surface drainage
Install CMP	4	Install a CMP at an unculverted fill	Inslope road	4	Inslope 370 feet of road to improve road surface drainage
Replace CMP	7	Upgrade an undersized CMP	Install rolling dips	109	Install rolling dips to improve road drainage
Excavate soil and remove	50	Typically fillslope & crossing excavations; excavate and remove a total of 10,656 yds^3	Remove berm	7	Remove 2,893 feet of berm with excavator improve road surface drainage
Engineered fill	1	Install reinforced wall to protect road outboard edge of road	Berm drains	29	Install berm drains to drain road surface runoff beyond outboard fillslope
Downspouts	5	Installed to protect the outlet fillslope from erosion	Install/replace ditch relief CMP	10	Install/replace ditch relief culverts to improve road surface drainage
Wet crossing	6	Rock armor stream crossing to protect fillslope from erosion using 266 yds^3 of rock	Clean/cut ditch	1	Clean/cut 90 feet of ditch
Flared inlet	4	Add flared inlet to increase capacity of culvert	Cross road drains	59	Install cross road drains to improve surface drainage on abandoned roads
Clean CMP	2	Remove debris and/or sediment from CMP inlet	Rock road surface	34	Rock road surface using 1,379 yds^3 road rock
Armor fill face, bank or headcut	1	Rock armor to protect fillslope and bank from erosion using 7 yds^3 of rock	Other	5	Miscellaneous treatments

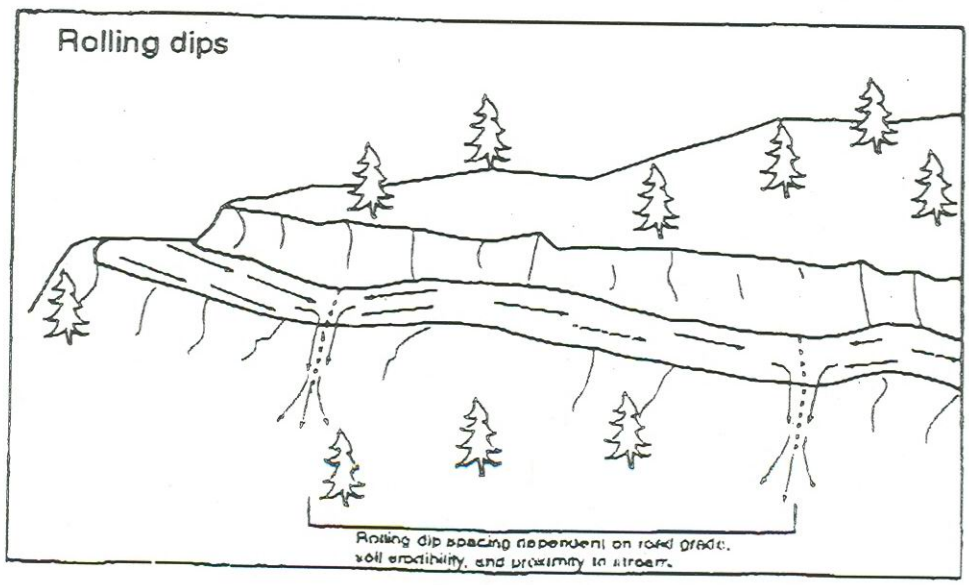

Map 1: Road related sites, by problem type, Garrapata Creek watershed assessment, Mount Carmel and Soberantes Point USGS Quads, Monterey County, California.
Legend
Sites by Problem Type
Stream crossing
Landslide
Other
Roads
Garrapata Creek watershed
N
Scale 1:26,000
1000 0 1000 2000 Feet
Prepared by Pacific Watershed Associates 4/30/2003
P.O. Box 4433 Arcata, CA 95518 (707) 839-5130
Garrapata Creek
Joshua
Trout Farm
Palo Colorado Canyon
Mt. Diablo
MERIDIAN
BM 162
BM 173
Palo BM 785

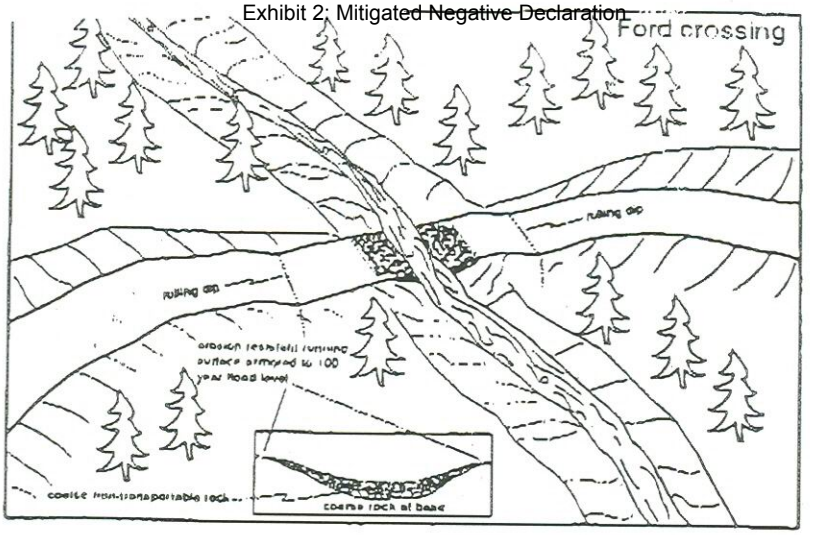
Map 2: Road related sites, by treatment immediacy, Garrapata Creek watershed assessment, Mount Carmel and Soberantes Point USGS Quads, Monterey County, California.

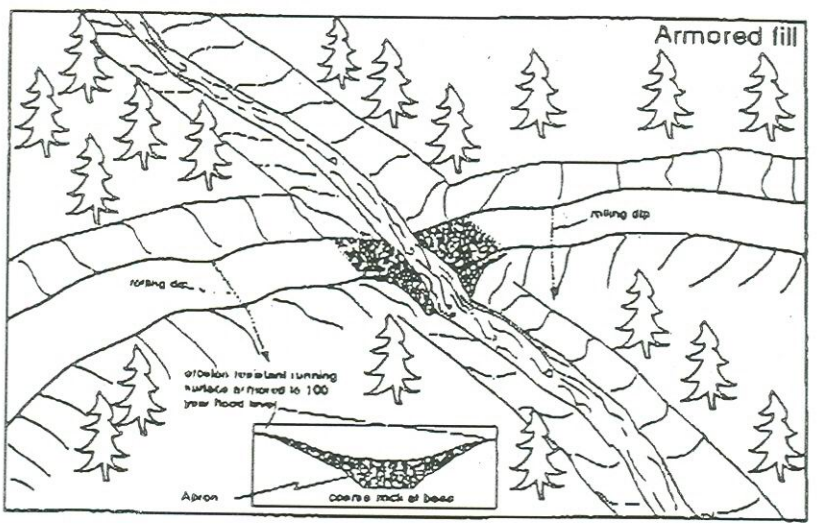


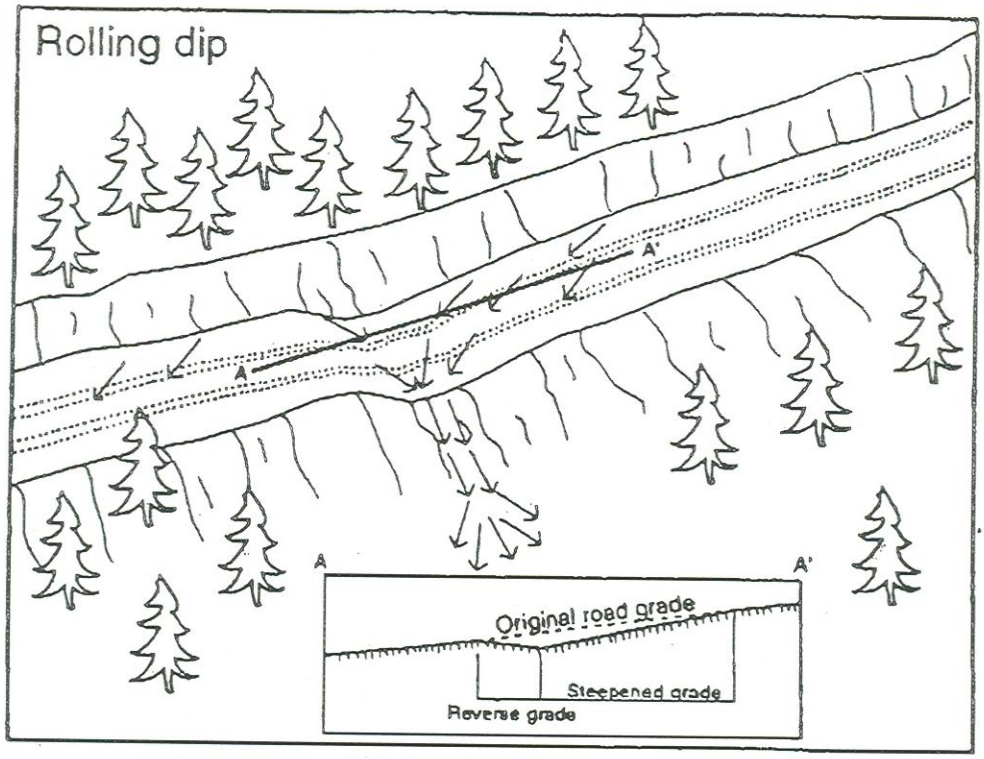

Waterbars
(seasonal roads)
A
A'
driveable


Cross-road drain and decompaction
(decommissioned roads)
A
A'
not driveable

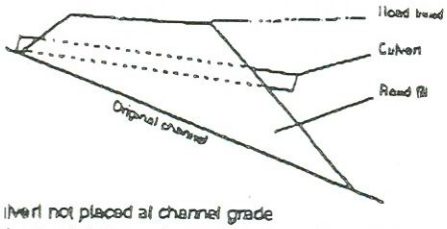

Rolling dips
Rolling dip spacing dependent on road grade,
soil erodibility, and proximity to stream.


Ford crossing
rolling dip
rolling dip
erosion resistant running surface armored to 100 year flood level
coarse non-transportable rock
coarse rock at base


Armored fill
rolling dip
rolling dip
erosion resistant running surface armored to 100 year flood level
Apron
coarse rock at base

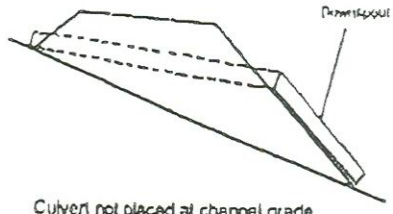

Rolling dip
A
A'
A
A'
Original road grade
Steepened grade
Reverse grade

Existing



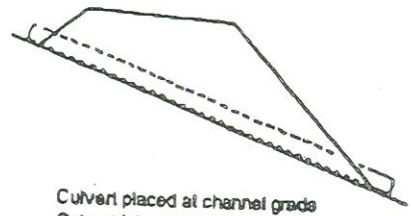
ilvert not placed at channel grade
ilvert outlet does not extend past base of road fill

Upgraded



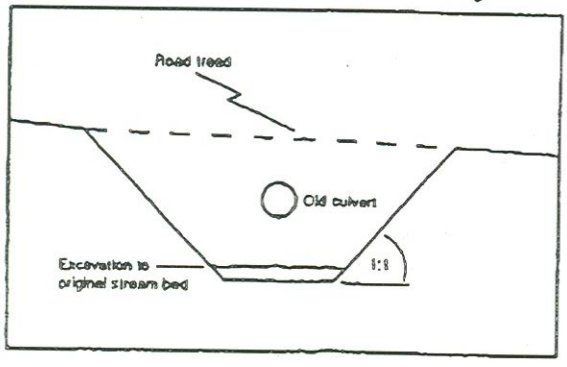
Culvert not placed at channel grade
Downspout added to extend outlet past road fill

Upgraded (preferred design option)

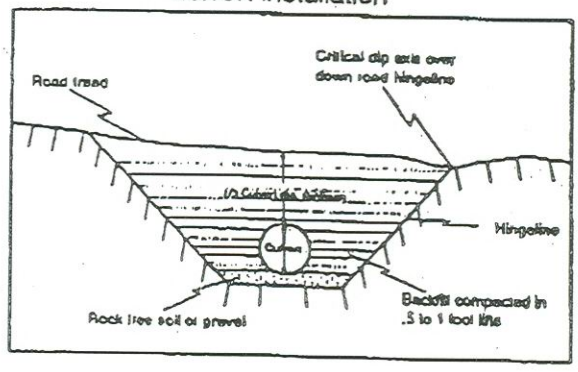


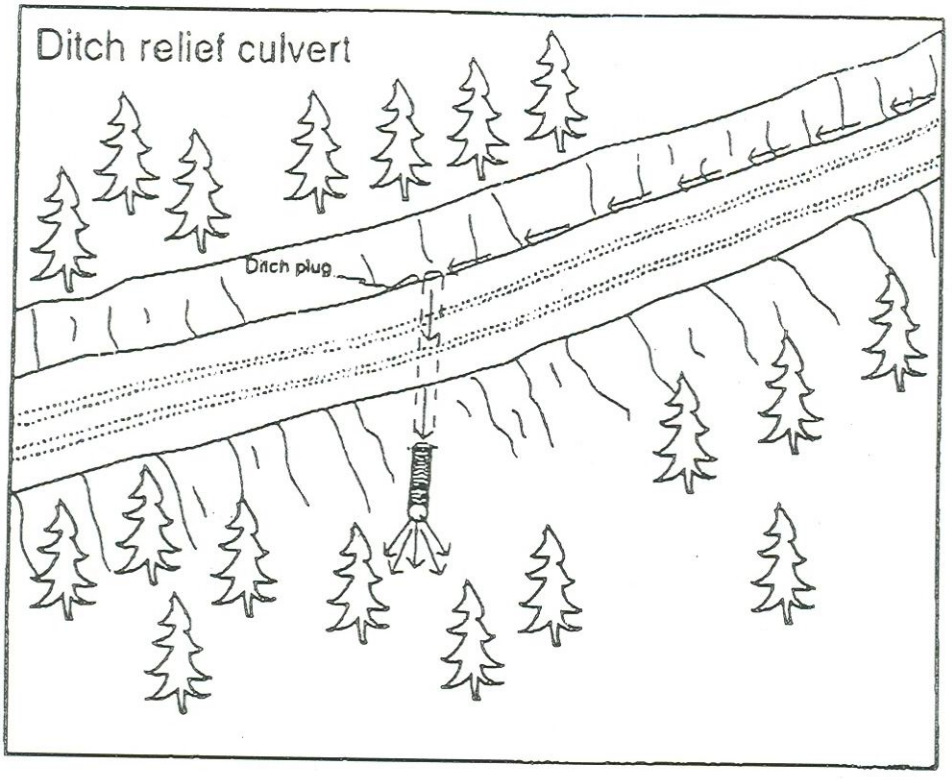
Culvert placed at channel grade
Culvert inlet and outlet resting on or partially in the original stream bed

Excavation in preparation for upgrading culverted stream crossing

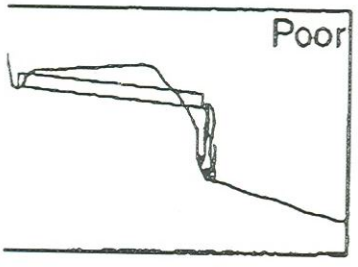


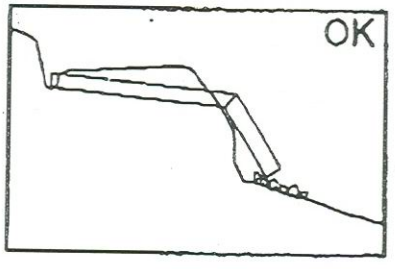
Upgraded stream crossing culvert installation

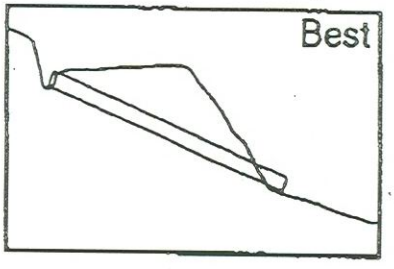


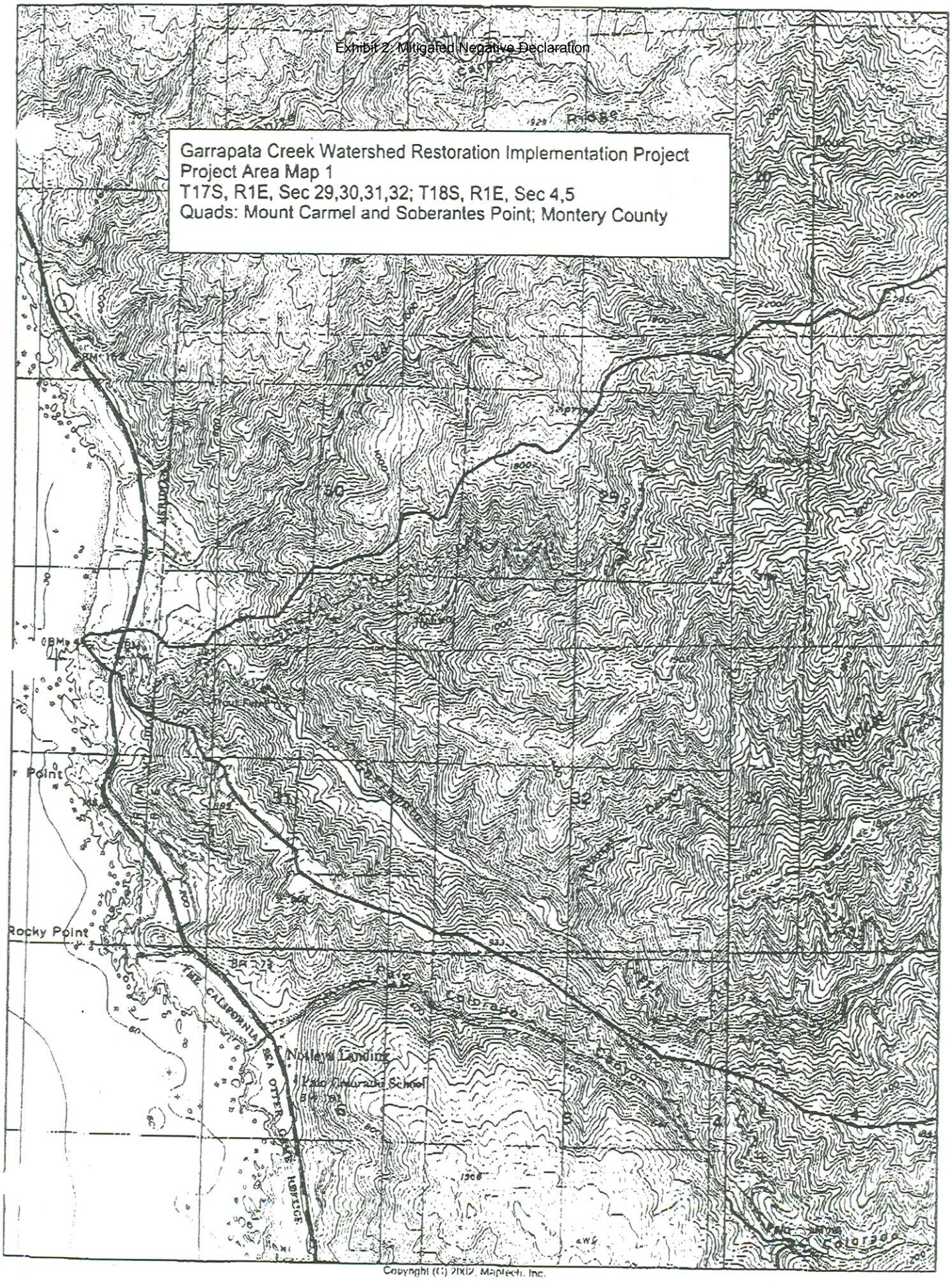


Cross sections of typical installations









California Department of Fish and Game
Natural Diversity Database
Selected Elements by Common Name
Possible Species within the Soberanes Point and Surrounding Quads for:
Garrapata Creek Watershed Restoration Implementation Project
T17S, R1E, Sec 29-32, and T18S, R1E, Sec 4-5; Monterey County

	Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS/R-E-D
1	Arroyo Seco bush mallow *Malacothamnus palmeri var. lucianus*	PDMAL0Q0B2			G3T1Q	S1.2	1B/3-2-3
2	California brown pelican *Pelecanus occidentalis californicus*	ABNFC01021	Endangered	Endangered	G4T3	S1S2	
3	California linderiella *Linderiella occidentalis*	ICBRA06010	Species of Concern		G2G3	S2S3	
4	California red-legged frog *Rana aurora draytonii*	AAABH01022	Threatened		G4T2T3	S2S3	SC
5	California tiger salamander *Ambystoma californiense*	AAAAA01147	Proposed Threatened		G2G3	S2S3	SC
6	Carmel Valley bush mallow *Malacothamnus palmeri var. involucratus*	PDMAL0Q0B1	Species of Concern		G3T2Q	S2.2	1B/2-2-3
7	Carmel Valley malacothrix *Malacothrix saxatilis var. arachnoidea*	PDAST660C2			G5T2	S2.2	1B/3-2-3
8	Central Dune Scrub	CTT21320CA			G2	S2.2	
9	Central Maritime Chaparral	CTT37C20CA			G2	S2.2	
10	Coast Range newt *Taricha torosa torosa*	AAAAF02032			G5T4	S4	SC
11	Cone Peak bedstraw *Galium californicum ssp. luciense*	PDRUB0N0E3			G5T2	S2.3	1B/3-1-3
12	Congdon's tarplant *Centromadia parryi ssp. congdonii*	PDAST4R0P1	Species of Concern		G4?T2	S2.1	1B/3-3-3
13	Dolloff Cave spider *Meta dolloff*	ILARA17010			G1	S1	
14	Dudley's lousewort *Pedicularis dudleyi*	PDSCR1K0D0	Species of Concern	Rare	G2	S2.2	1B/3-2-3
15	Eastwood's goldenbush *Ericameria fasciculata*	PDAST3L080			G2	S2.1	1B/3-3-3
16	Gowen cypress *Cupressus goveniana ssp. goveniana*	PGCUP04031	Threatened		G2T1	S1.2	1B/3-2-3
17	Hickman's cinquefoil *Potentilla hickmanii*	PDROS1B0U0	Endangered	Endangered	G1	S1.1	1B/3-3-3
18	Hickman's onion *Allium hickmanii*	PMLIL02140	Species of Concern		G2	S2.2	1B/2-2-3
19	Hooker's manzanita *Arctostaphylos hookeri ssp. hookeri*	PDERI040J1			G3T2?	S2?	1B/2-2-3
20	Hutchinson's larkspur *Delphinium hutchinsoniae*	PDRAN0B0V0			G2	S2.1	1B/3-2-3
21	Jones's layia *Layia jonesii*	PDAST5N090	Species of Concern		G1	S1.1	1B/3-2-3

	Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS/R-E-D
22	Kellogg's horkelia *Horkelia cuneata ssp. sericea*	PDROS0W043	Species of Concern		G4T1	S1.1	1B/3-3-3
23	Little Sur manzanita *Arctostaphylos edmundsii*	PDERI04260			G2	S2.2	1B/3-2-3
24	Menzies's wallflower *Erysimum menziesii ssp. menziesii*	PDBRA160E1	Endangered	Endangered	G2T2	S2.1	1B/3-3-3
25	Monterey Cypress Forest	CTT83150CA			G1	S1.2	
26	Monterey Pine Forest	CTT83130CA			G1	S1.1	
27	Monterey Pygmy Cypress Forest	CTT83162CA			G1	S1.1	
28	Monterey clover *Trifolium trichocalyx*	PDFAB402J0	Endangered	Endangered	G1	S1.1	1B/3-3-3
29	Monterey cypress *Cupressus macrocarpa*	PGCUP04060			G1	S1.2	1B/3-2-3
30	Monterey manzanita *Arctostaphylos montereyensis*	PDERI040R0			G2	S2.1	1B/3-2-3
31	Monterey pine *Pinus radiata*	PGPIN040V0			G1	S1.1	1B/3-3-2
32	Monterey spineflower *Chorizanthe pungens var. pungens*	PDPGN040M2	Threatened		G2T2	S2.2	1B/2-2-3
33	Muir's tarplant *Carlquistia muirii*	PDASTDU010			G2	S2.3	1B/2-1-3
34	North Central Coast Fall-Run Steelhead Stream	CARA2631CA			G?	S?	
35	Northern Bishop Pine Forest	CTT83121CA			G2	S2.2	
36	Pacific Grove clover *Trifolium polyodon*	PDFAB402H0		Rare	G1Q	S1.1	1B/3-3-3
37	Pajaro manzanita *Arctostaphylos pajaroensis*	PDERI04100			G2	S2.1	1B/2-3-3
38	Pinnacles buckwheat *Eriogonum nortonii*	PDPGN08470			G2	S2.3	1B/2-1-3
39	Santa Cruz clover *Trifolium buckwestiorum*	PDFAB402W0	Species of Concern		G1	S1.1	1B/3-3-3
40	Santa Cruz microseris *Stebbinsoseris decipiens*	PDAST6E050	Species of Concern		G2	S2.2	1B/2-2-3
41	Smith's blue butterfly *Euphilotes enoptes smithi*	IILEPG2026	Endangered		G5T1T2	S1S2	
42	Tidestrom's lupine *Lupinus tidestromii*	PDFAB2B3Y0	Endangered	Endangered	G2	S2.1	1B/3-3-3
43	Valley Needlegrass Grassland	CTT42110CA			G1	S3.1	
44	Yadon's rein orchid *Piperia yadonii*	PMORC1X070	Endangered		G1	S1.1	1B/3-3-3
45	adobe sanicle *Sanicula maritima*	PDAPI1Z0D0	Species of Concern	Rare	G2	S2.2	1B/3-3-3

	Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS/R-E-D
46	beach layia *Layia carnosa*	PDAST5N010	Endangered	Endangered	G1	S1.1	1B/3-3-3
47	black legless lizard *Anniella pulchra nigra*	ARACC01011			G3G4T2T3Q	S2	SC
48	black swift *Cypseloides niger*	ABNUA01010	Species of Concern		G4	S2	SC
49	burrowing owl *Athene cunicularia*	ABNSB10010	Species of Concern		G4	S2	SC
50	coast wallflower *Erysimum ammophilum*	PDBRA16010	Species of Concern		G2	S2.2	1B/2-2-3
51	coastal dunes milk-vetch *Astragalus tener var. titi*	PDFAB0F8R2	Endangered	Endangered	G1T1	S1.1	1B/3-3-3
52	compact cobwebby thistle *Cirsium occidentale var. compactum*	PDAST2E1Z1	Species of Concern		G3G4T2	S2.1	1B/2-2-3
53	fragrant fritillary *Fritillaria liliacea*	PMLIL0V0C0	Species of Concern		G2	S2.2	1B/2-2-3
54	hooked popcorn-flower *Plagiobothrys uncinatus*	PDBOR0V170	Species of Concern		G2	S2.2	1B/2-2-3
55	maple-leaved checkerbloom *Sidalcea malachroides*	PDMAL110E0	Species of Concern		G3	S3.2	1B/2-2-2
56	marsh microseris *Microseris paludosa*	PDAST6E0D0	Species of Concern		G2	S2.2	1B/2-2-3
57	monarch butterfly *Danaus plexippus*	IILEPP2010			G4	S3	
58	pine rose *Rosa pinetorum*	PDROS1J0W0	Species of Concern		G2Q	S2.2	1B/3-2-3
59	prairie falcon *Falco mexicanus*	ABNKD06090			G5	S3	SC
60	robust spineflower *Chorizanthe robusta var. robusta*	PDPGN040Q2	Endangered		G2T1	S1.1	1B/3-3-3
61	sand gilia *Gilia tenuiflora ssp. arenaria*	PDPLM041P2	Endangered	Threatened	G3?T2	S2.2	1B/3-2-3
62	sandmat manzanita *Arctostaphylos pumila*	PDERI04180			G2	S2.2	1B/3-2-3
63	seaside bird's-beak *Cordylanthus rigidus ssp. littoralis*	PDSCR0J0P2		Endangered	G5T1	S1.1	1B/2-3-3
64	southwestern pond turtle *Emys (=Clemmys) marmorata pallida*	ARAAD02032	Species of Concern		G3G4T2T3	S2	SC

	Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS/R-E-D
65	steelhead - south/central California coast esu *Oncorhynchus mykiss irideus*	AFCHA0209H	Threatened		G5T2	S2	
66	talus fritillary *Fritillaria falcata*	PMLIL0V070	Species of Concern		G2	S2.2	1B/3-2-3
67	tricolored blackbird *Agelaius tricolor*	ABPBXB0020	Species of Concern		G2G3	S2	SC
68	tufted puffin *Fratercula cirrhata*	ABNNN12010			G5	S2	SC
69	two-striped garter snake *Thamnophis hammondii*	ARADB36160			G3	S2	SC
70	western pond turtle *Emys (=Clemmys) marmorata*	ARAAD02030			G3G4	S3	SC
71	western snowy plover *Charadrius alexandrinus nivosus*	ABNNB03031	Threatened		G4T3	S2	SC

EXHIBIT A - STATEMENTS OF WORK
UNNUMBERED PAGES 1-28
AND UNNUMBERED PAGES 44 –172
PERTAINING TO OTHER PROJECTS WITHIN
THE 2004 DFG FISHERIES RESTORATION GRANT PROGRAM

can be reviewed by appointment at the offices of the State Coastal Conservancy
1330 Broadway, Suite 1100, Room 13
8:00am - 5:00pm

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, SSCRCD 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.