STATE OF CALIFORNIA

THE RESOURCES AGENCY

DEPARTMENT OF FISH AND GAME

MITIGATED NEGATIVE DECLARATION

FOR

THE 2008 FISHERIES RESTORATION GRANT PROGRAM IN DEL NORTE, HUMBOLDT, LOS ANGELES, MENDOCINO, MARIN, MONTEREY, NAPA, SAN LUIS OBISPO, SAN MATEO, SANTA BARBARA, SISKIYOU, SONOMA, TRINITY, AND VENTURA COUNTIES AND REQUIRED AGREEMENT REGARDING PROPOSED STREAM OR LAKE ALTERATION

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

INITIAL STUDY
AND
MITIGATED NEGATIVE DECLARATION
FOR
THE 2008 FISHERIES RESTORATION GRANT PROGRAM
IN
DEL NORTE, HUMBOLDT, LOS ANGELES, MENDOCINO, MARIN, MONTEREY, NAPA,
SAN LUIS OBISPO, SAN MATEO, SANTA BARBARA, SISKIYOU, SONOMA, TRINITY, AND VENTURA 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 within California's watersheds which combined with natural events has altered native habitats. This has 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 to increase survival for eggs, embryos, rearing juveniles, and downstream migrants. Bank erosion and riparian enhancement 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 migration barriers at stream crossings 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 habitat improvement 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 fourteen-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 2008 Fisheries Restoration Grant Program
- Appendix C. Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities
- Appendix D. Procedure for the Programmatic Evaluation of Paleontological Resources
- Appendix E. Procedure for the Programmatic Evaluation of Archeology Resources

DETAILED PROJECT DESCRIPTION AND BACKGROUND INFORMATION

FOR

THE 2008 FISHERIES RESTORATION GRANT PROGRAM
IN
DEL NORTE, HUMBOLDT, LOS ANGELES, MARIN, MENDOCINO, MONTEREY, NAPA, SAN LUIS OBISPO, SAN MATEO, SANTA BARBARA, SISKIYOU, SONOMA, TRINITY, AND VENTURA COUNTIES
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INTRODUCTION

The 2008 Fisheries Restoration Grant Program, formally known as "The 2008 Fisheries Restoration Grant Program in Del Norte, Humboldt, Los Angeles, Marin, Mendocino, Monterey, Napa, San Luis Obispo, San Mateo, Santa Barbara, Siskiyou, Sonoma, Trinity, and Ventura 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, 113 habitat restoration action items (68 major, 3 minor, and 42 exempt items) in the fourteen identified counties. The 68 major action items, which are discussed in detail in the environmental analysis that follows, and are listed in Appendix A, are the principal focus of the environmental analysis set forth below.

The Restoration Program also involves 42 non-physical habitat restoration-related activities, all of which are exempt from CEQA. These action items have no prospect of direct or indirect physical changes to the existing environment, and 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, Table A-1.

The Restoration Program also involves three minor-action items identified in Appendix A, Table A-2, which have no potential to adversely affect existing environmental conditions. These three minor-action items, which are not discussed in detail in the environmental analysis that follows, involve small-scale salmonid habitat improvement projects implemented solely with hand labor, 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., tilte 14, §§ 15300, 15306, 15307.)

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 DFG (See Fish and Game Code, § 1600 et seq.). 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 DFG.

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

This restoration program was established in 1981 and is administered by the DFG. 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. Since 1997, a more holistic restoration approach has been emphasized that facilitates habitat enhancement 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 exacerbated these problems and accelerated the alteration of habitat further. The resulting decline in fish populations has caused extreme financial hardship to a once thriving commercial fishery and drastically reduced, or in some cases eliminated, a very popular sport fishery. Most 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 habitat was recognized. Guided by the *California Salmonid Stream Habitat Restoration Manual* (Flosi et al., 1998, 2003 and 2006), hundreds of habitat restoration actions in this Restoration Program have been completed by government agencies and nonprofit groups. Activities have included revegetation with livestock exclusion 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. Road crossings 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 June 15 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 affected 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 DFG 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 by the DFG Technical Review Team (TRT), 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, the benefit for targeted species, project costs, and positive or negative impacts to the environment. The need for work in particular drainages or sites is evaluated and reviewed by the TRT utilizing the watershed assessment and planning work funded through the program, and from other DFG and agency programs at work in California. The proposals, technical scores, and comments are forwarded to the California Coastal Salmonid Restoration Grants Peer Review Committee (PRC). The PRC also evaluates and scores each proposal, and makes the final recommendations for funding priorities. The Director of Fish and Game reviews the recommendations of the PRC, and makes the final funding decision. Grants and contracts are written for the approved action items and environmental documents are completed.

The Fisheries Restoration Grant Program operates Regional General Permit Number 12 (Corps File Number: 27922N) issued by San Francisco District of the U. S. Army Corps of Engineers (USACE). This permits allows the DFG, grantees, 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, 2003 and 2006) that have been evaluated by DFG biologists. NOAA Fisheries (formerly NMFS) and the US Fish and Wildlife Service have issued biological opinions, which are incorporated into the RGP, that address the impacts of the DFG's Restoration Program.

All projects listed in this document will operate under the current RGP except for the dam removal portions of major action items Project ID# 722794 Glenbrook Gulch Anadromous Fish Habitat Restoration and Project ID# 722715 East Mill Creek Barrier Removal Downstream. Therefore the grantee will be responsible for securing all required permits for the dam removal portion of these two major action items including but not limited to ACOE 404, North Coast Regional Water Quality Control Board 401 and DFG 1600. The Grantee will not proceed with on the ground implementation until all necessary permits and consultations are secured.

Grantee's 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 will submit an annual 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 DFG'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 the DFG Lake and Streambed Alteration Program (1600) webpage http://www.dfg.ca.gov/habcon/1600/. Activities such as installing replacement 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, and all required measures for species protection discussed in this document are incorporated into the agreement for each project.

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 42 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 three 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 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 habitat restoration actions include: installation of digger logs, spider logs, 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. California Conservation Corps (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) or Section 15333, Class 33 “Small Habitat Restoration Projects”. 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. The names of the 68 action items in this category are presented in a list in Appendix A, Table A-3. A detailed description of each action item in this element is also located in Appendix A, sorted by county.

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 extend 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 fill cut failure. 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 DFG and NOAA criteria concerning fish passage. Current NOAA fish passage guidelines can be found on the web at: http://swr.nmfs.noaa.gov/hcd/NMFSSCG.PDF . DFG fish passage guidelines can be found in Part IX of the *California Salmonid Stream Habitat Restoration Manual*, available at http://www.dfg.ca.gov/fish/Resources/HabitatManual.asp.

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 NOAA and DFG fish screen criteria can be found in Appendix S of the *California Salmonid Stream Habitat Restoration Manual.*

Small dam removal requires plan details regarding location of stream and channel armor, stream channel cross sections and a longitudinal profile, as well as specifics on sediment control, water diversion and fish relocation. Appropriately sized boulders are used when necessary to stabilize disturbed and /or erodible stream banks. Excess fill materials will be hauled to a site from which they will not reenter the stream channel and all anthropogenic trash is hauled offsite to an appropriate disposal site. Any additional disturbed soils will be seeded, mulched and planted with native plants. The goal is to reestablish the stream morphology through the project reach.

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 DFG and are implemented by grantees utilizing heavy equipment and some hand labor crews. During a pre-project inspection, the grantee and the DFG 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 grantee's signature, as a required element of the activity. The DFG 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/fish/Resources/HabitatManual.asp. 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.

Complete site plans and prescriptions for action items located in Del Norte, Humboldt, Siskiyou, Trinity, and Mendocino counties are available for review at the Department of Fish and Game, Northern Regional Office at 1455 Sandy Prairie Court, Suite J, Fortuna, California 95540. For an appointment to view this information, contact Gary Flosi at (707) 725-1072, Monday through Friday, between the hours of 9 a.m. and 4 p.m.

Complete site plans and prescriptions for action items located in San Mateo, Sonoma, Marin, and Napa counties are available for review at the Department of Fish and Game, Bay Delta Region, office of Senior Biologist Supervisor, Bob Coey, 7329 Silverado Trail, Yountville, California 94559. Appointments may be made by telephoning (707) 944-5572, Monday through Friday, between the hours of 9 a.m. and 4 p.m.

Complete site plans and prescriptions for action items located in Monterey and San Luis Obispo counties are available for review at the Department of Fish and Game, Central Region, office of Senior Biologist Supervisor, Margaret Paul, 3196 S. Higuera Street, Suite A, San Luis Obispo, California 93401. Appointments may be made by telephoning (805) 594-6175, Monday through Friday, between the hours of 9 a.m. and 4 p.m.

Complete site plans and prescriptions for the action item located in Los Angeles, Santa Barbara, and Ventura counties, 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 and 1933 Cliff Drive, Suite 9, Santa Barbara, CA 93109. Appointments may be made by telephoning (562) 342-7186, Monday through Friday, between the hours of 9 a.m. and 4 p.m.

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 DFG 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 DFG's current Natural Diversity Data Base (NDDB) for each project located in the entire fourteen-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 DFG biologist, or other qualified biological consultant, to avoid any potentially significant impacts shall become part of the work plan and incorporated into the measures required in the issued streambed alteration agreement (Fish and Game Code Section 1600 et seq.). The DFG’s grant managers will ensure that the grantee or responsible party is aware of, and implements, these site specific conditions during routine inspections. The DFG 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.

Second, a review of the DFG's NDDB for the entire fourteen-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 grants for each site will be conditioned to avoid impacts to any special status species that could potentially be affected at that site. The DFG will ensure that the grantee or responsible party is aware of all specific conditions that apply to their work site. Also, the DFG 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.

Third, all major action items listed in Appendix A will comply with DFG policies to conduct a paleontological survey. A qualified paleontologist(s) will be contracted to complete the surveys using current accepted protocols. Research will be done on available paleontological data repositories, review fossil resources with regional experts to identify possible areas of importance within the fourteen-county programmatic project area. Site specific detailed research will be done for projects sites deemed likely to encounter paleontological resources (Appendix D). There will be communication links between DFG grant managers and review of evaluation 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 qualified paleontologist(s), or other qualified consultant, to avoid any potentially significant impacts shall become part of the work plan and incorporated into the measures required in the issued streambed alteration agreement (Fish and Game Code Section 1600 et seq.). The DFGs grant managers will ensure that the grantee or responsible party is aware of, and implements, these site specific conditions during routine inspections. The DFG 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.

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 helps provide a measure of the benefits, insight, and guidance for future projects.

Activity during implementation is overseen by a DFG grant manager and 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 and that the correct materials and techniques are used so

that the objectives of the activities are met while 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 is designed to assess the effectiveness of project work types and should occur within one to three years after an action item is complete. The DFG 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 as described in the *California Salmonid Stream Habitat Restoration Manual*, Part VIII, Project Monitoring and Evaluation, or using new monitoring procedures developed under a DFG grant. Effectiveness monitoring addresses the physical response associated with an activity, such responses are generally more easily measured and interpreted. Biological response data especially that for anadromous fish, is more difficult to collect and interpret. Reliable assessment of anadromous salmonid response to habitat improvement prescriptions generally require many years of trend data. The DFG intends to address the biological response to habitat improvement through a coastal salmonid population monitoring plan which is currently under development in association with the National Oceanic Atmospheric Administration.

Complete monitoring specifications are included in the *California Salmonid Stream Habitat Restoration Manual* and on the DFG's web site, http://www.dfg.ca.gov/fish/Resources/HabitatManual.asp. Additional details on monitoring and reporting requirements are presented in Appendix B.

REFERENCES:

California Department of Fish and Game. Lake and Streambed Alteration Program (1600) webpage http://www.dfg.ca.gov/habcon/1600/

California Department of Fish and Game. 2000. Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities. The Resources Agency, State of California, Sacramento, CA.

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/fish/Resources/HabitatManual.asp.

Flosi, G, S. Downie, M. Bird, R. Coey, and B. Collins. 2003, 2006. *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/fish/Resources/HabitatManual.asp.

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.

APPENDIX A, Table A-3. Major Action Items

County	Project ID#	Project Type	Project Title	Agency
Del Norte	722824	HI	Sultan Creek Habitat Improvement	Rural Human Services
Del Norte	722825	HU	Terwer Creek Training and Sediment Control Project	Yurok Tribe Watershed Restoration Department
Del Norte	722885	HI	Wilson Creek Instream Habitat Enhancement	California Conservation Corps, Northern Service District, Fortuna Center
Del Norte	723013	HU	Terwer USFWS	Yurok Tribe
Del Norte	723038	HU	Wilson Creek Phase 2 Additional Sites	Pacific Coast Fish Wildlife and Wetlands Restoration Association
Humboldt	722715	HB	East Mill Creek Barrier Removal Downstream	Mattole Salmon Group
Humboldt	722716	HB	East Mill Creek Barrier Removal Upstream (was FRGP FP028)	Mattole Salmon Group
Humboldt	722730	HU	Francis Creek	Eel River Watershed Improvement Group
Humboldt	722735	HI	Redwood Creek Salmonid Habitat Improvement Project	Eel River Watershed Improvement Group
Humboldt	722738	HU	Road Decommissioning-Bluff Creek Watershed at Fish Lake	U.S. Forest Service Six Rivers National Forest
Humboldt	722808	HU	Middle VDR Phase 3 Upslope	Yager Environmental Stewards
Humboldt	722814	FP	North Fork Lost Man Creek Fish Passage Project	Redwood National Park
Humboldt	722840	HU	The 2007 Blue Goo Slide Stabilization Project	Eel River Salmon Restoration Project, PCFFA

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Humboldt	722841	HS	The 2007 Leggett Creek Bank Stabilization & Fish Habitat Project	Eel River Salmon Restoration Project, PCFFA
Humboldt	722871	FP	Mill (Watek) Creek Culvert Replacement	Humboldt County Public Works Department
Humboldt	722872	FP	South Fork Bear Creek Culvert Removal for Fish Passage	Mattole Restoration Council
Humboldt	722887	HR	Eel River Arundo Eradication	Eel River Watershed Improvement Group
Humboldt	722888	HR	Lower Maple Creek Riparian Corridor` Enhancement	Humboldt Fish Action Council
Humboldt	722889	HU	Ettersburg Area Sediment Reduction Project for Coho Recovery (FRGP HU130 Blue Slide)	Mattole Restoration Council
Humboldt	722897	HU	Iaqua Ranch Roads Sediment Reduction	Humboldt County Resource Conservation District
Humboldt	722899	HU	Rocky Gulch Road Decommissioning	Pacific Coast Fish Wildlife and Wetlands Restoration Association
Humboldt	722900	HU	Mattole Esturary Area Sediment Reduction (FRGP HU170 lower Mattole)	Mattole Restoration Council
Humboldt	722901	HU	Freshwater Creek Road Decommissioning, Phase III	Humboldt County Resource Conservation District
Humboldt	722902	HU	Elk River Road Decommissioning and Sediment Control, Phase II	Humboldt County Resource Conservation District
Humboldt	722903	HU	2008 Salmon Creek Road Decommissioning	Pacific Coast Fish Wildlife and Wetlands Restoration Association
Humboldt	723006	HB	Hall Creek Fish Passage	Caltrans

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Humboldt	723007	HB	Lindsey Creek Fish Passage	Caltrans
Humboldt	723010	HU	Mattole Bear Creek	Mattole Restoration Council
Humboldt	723011	HU	Coyote Creek Watershed Improvement additional Sites Project	Pacific Coast Fish Wildlife and Wetlands Restoration Association
Humboldt	723012	HU	Upper Redwood Lacks Creek Erosion Control additional sites	Pacific Coast Fish Wildlife and Wetlands Restoration Association
Humboldt	723014	HU	Upper Mattole Stream Crossing Decommissioning Project	Restoration Forestry
Humboldt	723015	HU	YES Sediment Reduction Project	Yager Environmental Stewards
Los Angeles	722834	HI	Solstice Creek Habitat Enhancement Project	California Conservation Corps
Marin	722772	HU	San Geronimo Creek Upland Habitat Restoration Project	Marin Open Space District
Mendocino	722767	HS	Lower Forsythe Creek Restoration Project	Bioengineering Institute
Mendocino	722781	HI	Upper Noyo River Wood Project	CCC Ukiah
Mendocino	722783	HI	Albion River Spawning Habitat Enhancement	California Conservation Corps
Mendocino	722794	HB	Glenbrook Gulch Anadromous Fish Habitat Restoration	California Department of Parks and Recreation
Mendocino	722831	HU	Kenny Creek and Mud Creek Sediment Reduction	Mendocino County RCD
Mendocino	722883	HI	Kenny Creek Habitat Improvement	Eel River Watershed Improvement Group
Mendocino	722894	HU	2008 Standley Creek Watershed Implementation Phase I, SF Eel River	Trout Unlimited

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Mendocino	722896	HU	Garcia Forest Signal Creek Watershed Implementation Project, Phase 1	The Conservation Fund
Mendocino	722927	FP	2008 Little Jack Creek Fish Passage	Trout Unlimited
Mendocino	722928	FP	Ancestor Creek Migration Barrier Removal Project	Mendocino County Department of Transportation
Mendocino	723009	HU	Hollow Tree Additional Sites	Trout Unlimited
Monterey	722803	HU	Williams Creek Erosion Prevention Implementation Project	Big Sur Land Trust
Napa	723017	HU	Demonstration Roads Improvements in the Napa River Watershed (includes Garden-Heath Canyon Roads 722826)	Napa Co. RCD/PWA
San Luis Obispo	722875	HR	San Luis Obispo Creek Watershed Arundo Management Program	Land Conservancy of San Luis Obispo County
San Mateo	722740	HB	Pescadero Creek Riparian Habitat Improvement Project	San Mateo County Parks and Recreation Division
San Mateo	722807	HU	Big Dipper Ranch Road Project	Midpeninsula Regional Open Space District
Santa Barbara	722838	HB	Gobernador Creek - Widdoes Fish Passage Enhancement Project	Community Environmental Council
Siskiyou	722806	SC	Little Shasta Fish Passage and Screening Project	Shasta Valley Resource Conservation District
Siskiyou	722886	HI	Scott River Off-Channel Habitat Enhancement	Siskiyou Resource Conservation District
Siskiyou	723004	WC	Shackleford Measuring Weir	DWR

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Siskiyou	723005	WD	Montague Measuring Weir	DWR
Siskiyou	723008	PM	Youngs' Fish Passage Project	Siskiyou RCD
Siskiyou	723016	SC	Jenner Lower Pump Fish Screen	Siskiyou RCD
Sonoma	722725	FP	Dutch Bill Creek Fish Passage Barrier Elimination	Gold Ridge Resource Conservation District
Sonoma	722731	HI	Fay Creek Pool Habitat Project	Gold Ridge Resource Conservation District
Sonoma	722788	HS	Green Valley Coho Enhancement IV	Gold Ridge Resource Conservation District
Sonoma	722789	HR	Riparian Restoration for Salmonid Recovery, Sonoma Creek	Sonoma Ecology Center
Sonoma	722882	HI	Salmon Creek Estuary Habitat Structures	Occidental Arts and Ecology Center
Trinity	722205	HU	Upper South Fork Road Decommissioning	Trinity County RCD
Trinity	722804	FP	Conner Creek Fish Passage Improvement Project	Trinity County Planning Department
Trinity	722816	FP	Packers Creek Bridge Fish Passage	USFS Shasta-Trinity NF
Trinity	723024	FP	Hall City Creek	Trinity County Public Works Department
Trinity/Humboldt	722199	HU	Monroe and Big slide creek Road Decommissioning Project	Trinity County RCD
Ventura	722764	FP	Lion Creek Bridge Replacement Project	Ventura County Resource Conservation District

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FP – Fish Passage at Stream Crossings
HB – Instream Barrier Modification
HI – Instream Habitat Restoration
HR – Riparian Restoration
HS – Bank stabilization
HU – Upslope Watershed Restoration
PM – Maintenance
SC – Fish Screening
WC – Water Conservation Measures
WD – Water Measuring Devices

California Department of Fish and Game
Natural Diversity Database
Selected Elements by Common Name - Portrait
Possible species within the Dedrick and surrounding quads for the Conner Creek Fish Passage Improvement Project

	Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1	American (=pine) marten *Martes americana*	AMAJF01010			G5	S3S4	
2	American badger *Taxidea taxus*	AMAJF04010			G5	S4	SC
3	Baker's globe mallow *Iliamna bakeri*	PDMAL0K010			G4	S3.2	4.2
4	Big Bar hesperian *Vespericola pressleyi*	IMGASA4170			G1	S1	
5	Canyon Creek stonecrop *Sedum paradisum*	PDCRA0A0U3			G1	S1.3	1B.3
6	Cascades frog *Rana cascadae*	AAABH01060			G3G4	S3	SC
7	Darlingtonia Seep	CTT51120CA			G4	S3.2	
8	Dudley's rush *Juncus dudleyi*	PMJUN01390			G5	S2.3?	2.3
9	English Peak greenbriar *Smilax jamesii*	PMSMI010D0			G3	S3.2	1B.3
10	Heckner's lewisia *Lewisia cotyledon var. heckneri*	PDPOR04052			G4T2	S2.2	1B.2
11	Humboldt marten *Martes americana humboldtensis*	AMAJF01012			G5T2T3	S2S3	SC
12	Klamath Mountain catchfly *Silene salmonacea*	PDCAR0U2D0			G1G2	S1S2.2	1B.2
13	Lyall's tonestus *Tonestus lyallii*	PDASTE0050			G5	S1.3?	2.3
14	Oregon fireweed *Epilobium oreganum*	PDONA060P0			G2	S2.2	1B.2
15	Oregon snowshoe hare *Lepus americanus klamathensis*	AMAEB03011			G5T3T4Q	S2?	SC
16	Pacific fisher *Martes pennanti (pacifica) DPS*	AMAJF01021	Candidate		G5	S2S3	SC
17	Regel's rush *Juncus regelii*	PMJUN012D0			G4?	S1.3?	2.3
18	Shasta chaenactis *Chaenactis suffrutescens*	PDAST200H0			G3	S3.2?	1B.3
19	Siskiyou fireweed *Epilobium siskiyouense*	PDONA06100			G3	S2.2	1B.3
20	Tinity Alps ground beetle *Nebria sahlbergii triad*	IICOL6L081			G1G3T1T3	S1S3	
21	Tracy's beardtongue *Penstemon tracyi*	PDSCR1L6A0			G1	S1.3	1B.3
22	Trinity Spot *Punctum hannai*	IMGAS47080			G1	S1S3	
23	Trinity bristle snail *Monadenia infumata setosa*	IMGASC7080		Threatened	G2T2	S2	

California Department of Fish and Game
Natural Diversity Database
Selected Elements by Common Name - Portrait
Possible species within the Dedrick and surrounding quads for the Conner Creek Fish Passage Improvement Project

	Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
24	Trinity shoulderband *Helminthoglypta talmadgei*	IMGASC2630			G1G3	S1S3	
25	Wilkin's harebell *Campanula wilkinsiana*	PDCAM020Z0			G2	S2.2	1B.2
26	buttercup-leaf suksdorfia *Suksdorfia ranunculifolia*	PDSAX0W010			G5	S2	2
27	elongate copper moss *Mielichhoferia elongata*	NBMUS4Q022			G4?	S2.2	2.2
28	flagella-like atractylocarpus *Atractylocarpus flagellaceus*	NBMUS84010			G5	S1.2	2.2
29	foothill yellow-legged frog *Rana boylii*	AAABH01050			G3	S2S3	SC
30	golden eagle *Aquila chrysaetos*	ABNKC22010			G5	S3	
31	hooded lancetooth *Ancotrema voyanum*	IMGAS36130			G1G2	S1S2	
32	northwestern pond turtle *Actinemys marmorata marmorata*	ARAAD02031			G3G4T3	S3	SC
33	showy raillardella *Raillardella pringlei*	PDAST7X030			G2	S2.2	1B.2
34	spring-run chinook salmon *Oncorhynchus tshawytscha spring-run*	AFCHA0205A	Threatened	Threatened	G5	S1	
35	summer-run steelhead trout *Oncorhynchus mykiss irideus*	AFCHA0213B			G5T4Q	S2	SC
36	thread-leaved beardtongue *Penstemon filiformis*	PDSCR1L2A0			G3	S3.3	1B.3
37	western tailed frog *Ascaphus truei*	AAABA01010			G4	S2S3	SC
38	white-flowered rein orchid *Piperia candida*	PMORC1X050			G3	S3.2	1B.2
39	woolly pussy-toes *Antennaria lanata*	PDAST0H0B0			G5	S1.2	2.2

Exhibit A
Conner Creek Fish Passage Improvement Project
Statement of Work

Under direction of the Department of Fish and Game, and under the following conditions and terms, the Grantee will:

1. Improve fish passage for coho salmon and steelhead trout in Conner Creek, tributary to the Trinity River in Trinity County. The objective is to improve access to approximately 2.5 miles of habitat, to increase spawning habitat for adult salmonids and rearing habitat for juvenile salmonids.

2. Conduct work on two locations of Conner Creek. The project sites are on Conner Creek Road (#1) and Red Hill Road (#2). Crossing #1 is located 4,080 feet upstream of its confluence with the Trinity River and crossing #2 is approximately 1,100 feet upstream of crossing #1. The projects are located in Township 33N, Range 11W, Section 02 of the U.S.G.S. Quadrangle. Crossing #1 is at 40.7495^{0} N and 123.0813^{0} W; Crossing #2 is at 40.7486^{0} N and 123.0845^{0} W as depicted in Exhibit C, Project Location Map, which is attached and made part of this agreement by this reference.

3. Improve fish passage in Conner Creek by completing the following work:
   - Design plans for the stream crossing installation to be submitted to the Grant Manager prior to project commencement. The plans will include details of construction, scaled drawings of the new crossing structure, stream channel cross sections and a longitudinal profile, as well as specifics on traffic detour, sediment control, water diversion and fish relocation if necessary.
   - Implement plans for fish removal, water diversion, sediment control and traffic detour.
   - Crossing #1 – Temporary shoring will be installed in the concrete box culvert and the concrete bottom and existing side-baffles will be excavated. A new bottom and sides will be framed and poured. A detour will not be required at this site since the road will remain open with traffic control. The new bottom of the culvert will be approximately 2.5 feet lower than the existing bottom with the sides sloping at 1:1. The finished crossing will be a 14 feet wide and 8.75 feet tall concrete box culvert with a finished grade of approximately 6%.
   - Crossing #2 – The existing ramp baffles will be removed and steel corner baffles will be installed in a 6 inch thick concrete lining throughout the culvert. Five outlet jump pools consisting of boulder weirs will be constructed below the outlet to back-flood the culvert. An overflow culvert 5 feet in diameter will be installed higher in the road fill to allow for increased flow capacity up to the 50 year flow.
   - Treat disturbed and /or erodible stream banks at the project site with appropriately sized boulders. Any additional disturbed soils will be seeded, mulched and planted with native plants.

4. The Grantee will not proceed with on the ground implementation until all necessary permits and consultations are secured.

5. The Grantee shall notify the Grant Manager a minimum of five working days before the project site is de-watered and the stream flow diverted. The notification will provide a reasonable time for Department personnel to supervise the implementation of the water diversion plan and oversee the safe removal and relocation of salmonids and other fish life from the project area. If the project requires dewatering of the site, and the relocation of salmonids, the Grantee will implement the following measures to minimize harm and mortality to listed salmonids:
   - Fish relocation and dewatering activities shall only occur between June 15 and October 31 of each year.
   - The Grantee shall minimize the amount of wetted stream channel dewatered at each individual project site to the fullest extent possible.
   - All electrofishing shall be performed by a qualified fisheries biologist and conducted according to the National Marine Fisheries Service, *Guidelines for Electrofishing Waters Containing Salmonids Listed Under the Endangered Species Act*, June 2000.
   - The Grantee will provide fish relocation data to the Grant Manager on a form provided by the Department of Fish and Game.
   - Additional measures to minimize injury and mortality of salmonids during fish relocation and dewatering activities shall be implemented as described in Part IX, pages 52 and 53 of the *California Salmonid Stream Habitat Restoration Manual.*

6. The stream crossing design and installation will meet flow carrying capacity required for a 100-year flood event as identified by specifications determined by NOAA Fisheries and the Department of Fish and Game, for adult and juvenile salmonid fish passage.

7. The project will follow the National Marine Fisheries Service (NMFS 2001) Guidelines for Salmonid Passage at Stream Crossings and DFG criteria for fish passage as described in the Third Edition, Volume II, Part IX, February 2003, of the *California Salmonid Stream Habitat Restoration Manual*. Designs shall be visually reviewed and authorized by NOAA Fisheries (or DFG) engineers prior to commencement of work.

8. All habitat improvements will be in accordance with techniques described in the Third Edition, January 1998, of the *California Salmonid Stream Habitat Restoration Manual*.

9. Work in flowing streams is restricted to June 15 through October 31. Actual project start and end dates, within this timeframe, are at the discretion of the Department of Fish and Game. Planting of tree seedlings will take place after December 1 or when sufficient rainfall has occurred to insure the best chance of survival of the seedlings.

The standard for success is 80% survival of plantings or 80% ground cover for broadcast planting of seed, after a period of three years.

10. The Grantee will maintain the new crossings, inspect the crossing in a timely manner and remove debris as necessary during the storm season.

11. If the project will not be completed by March 31, 2010, and therefore the grantee will be requesting an amendment for time, this request and a justification for the delay resulting in the time request must also be submitted no later than December 1, 2009.

12. An annual report will be submitted each year, no later than December 1, detailing the work completed that field season. The annual report will include, but not necessarily be limited to the following where applicable:

    - implementation start and end dates
    - percentage of the project completed to date
    - dewatering and fish relocation data on DFG data sheet (to be provided by the DFG grant manager upon request)
    - projected start and end dates for work to be implemented the following season.

    The annual report will also include, on a site by site basis:

    - number of stream crossings upgraded
    - stream crossings treated for fish passage
    - length of stream habitat made accessible by fish passage treatment
    - sediment savings
    - spoils volumes
    - number of stream bank sites treated
    - length of stream bank protected or stabilized
    - area of feature installed within bankfull width
    - number of trees planted
    - area treated with planting.

13. Upon completion of the project, the Grantee shall submit two hard copies of a final written report and one electronic, *Microsoft Word* compatible, copy on a CD. The report shall include, but not necessarily be limited to the following information:

    - Grant number
    - Project name
    - Geographic area (e.g., watershed name)
    - Location of work – show project location using U.S.G.S. 7.5 minute topographical map or appropriately scaled topographical map
    - Geospatial reference/location (lat/long is preferred – defined as point, line, or polygon)

- Project start and end dates and the number of person hours expended
- Total of each fund source, by line item, expended to complete the project, breaking down Grant dollars, by line item, and any other funding, including type of match (cash or in-kind service)
- Expected benefits to anadromous salmonids from the project
- Labeled before and after photographs of any restoration activities and techniques
- Specific project access using public and private roads and trails, with landowner name and address
- Complete as built project description
- Report measurable metrics for the project by responding to the restoration project metrics listed below.

Habitat Protection and Restoration Projects– Reporting Metrics (HB) (Report N/A to those that do not apply)

Habitat Projects: (all)

- Identify the watershed/sub-basin plan or assessment in which the project is identified as a priority.
- Name the priority habitat limiting factors identified in that plan that are addressed by the project
- Type of monitoring included in the project
    - Design spec achieved
    - Fish movement/abundance
- Number of stream miles treated/affected by the project within the project boundaries.

Fish Passage Improvement Projects (HB):

- Number of blockages removed or made passable.
- Number of miles made accessible to salmonids.

Instream Habitat Projects (HI)

- Description of instream treatments used, including site locations referenced to an established landmark, number of treatment sites, and any modifications to site/treatment design.

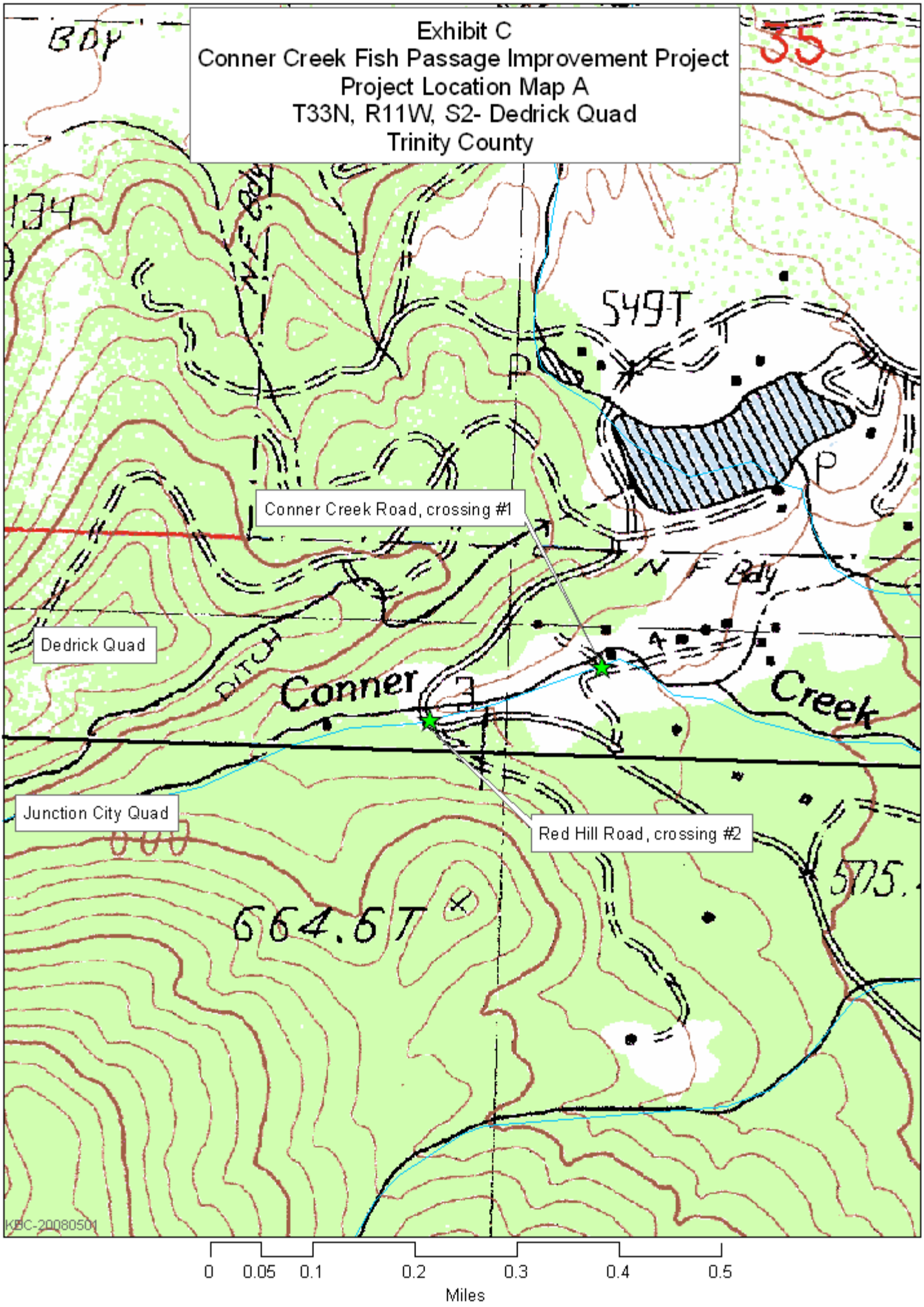
Riparian Habitat Projects (HR, HS)

- Number of acres treated (e.g., planted) according to plan
- Species and size of trees planted
- Number of trees/density of plantings
- Feet of stream bank stabilized and treatments used.

14. The Grantee will acknowledge the participation of the Department of Fish and Game, Fisheries Restoration Grant funds on any signs, flyers, or other types of

written communication or notice to advertise or explain the Conner Creek Fish Passage Improvement Project.

Exhibit 4: 2008 Mitigated Negative Declaration (Connor and Ancestor Creeks)



STATE OF CALIFORNIA

THE RESOURCES AGENCY

DEPARTMENT OF FISH AND GAME

MITIGATED NEGATIVE DECLARATION

FOR

THE 2008 FISHERIES RESTORATION GRANT PROGRAM IN DEL NORTE, HUMBOLDT, LOS ANGELES, MENDOCINO, MARIN, MONTEREY, NAPA, SAN LUIS OBISPO, SAN MATEO, SANTA BARBARA, SISKIYOU, SONOMA, TRINITY, AND VENTURA COUNTIES AND REQUIRED AGREEMENT REGARDING PROPOSED STREAM OR LAKE ALTERATION

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Fisheries Restoration Grant Program

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 2008 FISHERIES RESTORATION GRANT PROGRAM
IN
DEL NORTE, HUMBOLDT, LOS ANGELES, MENDOCINO, MARIN, MONTEREY, NAPA,
SAN LUIS OBISPO, SAN MATEO, SANTA BARBARA, SISKIYOU, SONOMA, TRINITY, AND VENTURA 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 within California's watersheds which combined with natural events has altered native habitats. This has 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 to increase survival for eggs, embryos, rearing juveniles, and downstream migrants. Bank erosion and riparian enhancement 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 migration barriers at stream crossings 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 habitat improvement 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 fourteen-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 2008 Fisheries Restoration Grant Program
- Appendix C. Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities
- Appendix D. Procedure for the Programmatic Evaluation of Paleontological Resources
- Appendix E. Procedure for the Programmatic Evaluation of Archeology Resources

DETAILED PROJECT DESCRIPTION AND BACKGROUND INFORMATION

FOR

THE 2008 FISHERIES RESTORATION GRANT PROGRAM
IN
DEL NORTE, HUMBOLDT, LOS ANGELES, MARIN, MENDOCINO, MONTEREY, NAPA, SAN LUIS OBISPO, SAN MATEO, SANTA BARBARA, SISKIYOU, SONOMA, TRINITY, AND VENTURA COUNTIES
AND
REQUIRED AGREEMENT REGARDING PROPOSED STREAM OR LAKE ALTERATION

INTRODUCTION

The 2008 Fisheries Restoration Grant Program, formally known as "The 2008 Fisheries Restoration Grant Program in Del Norte, Humboldt, Los Angeles, Marin, Mendocino, Monterey, Napa, San Luis Obispo, San Mateo, Santa Barbara, Siskiyou, Sonoma, Trinity, and Ventura 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, 113 habitat restoration action items (68 major, 3 minor, and 42 exempt items) in the fourteen identified counties. The 68 major action items, which are discussed in detail in the environmental analysis that follows, and are listed in Appendix A, are the principal focus of the environmental analysis set forth below.

The Restoration Program also involves 42 non-physical habitat restoration-related activities, all of which are exempt from CEQA. These action items have no prospect of direct or indirect physical changes to the existing environment, and 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, Table A-1.

The Restoration Program also involves three minor-action items identified in Appendix A, Table A-2, which have no potential to adversely affect existing environmental conditions. These three minor-action items, which are not discussed in detail in the environmental analysis that follows, involve small-scale salmonid habitat improvement projects implemented solely with hand labor, 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., tilte 14, §§ 15300, 15306, 15307.)

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 DFG (See Fish and Game Code, § 1600 et seq.). 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 DFG.

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

This restoration program was established in 1981 and is administered by the DFG. 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. Since 1997, a more holistic restoration approach has been emphasized that facilitates habitat enhancement 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 exacerbated these problems and accelerated the alteration of habitat further. The resulting decline in fish populations has caused extreme financial hardship to a once thriving commercial fishery and drastically reduced, or in some cases eliminated, a very popular sport fishery. Most 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 habitat was recognized. Guided by the *California Salmonid Stream Habitat Restoration Manual* (Flosi et al., 1998, 2003 and 2006), hundreds of habitat restoration actions in this Restoration Program have been completed by government agencies and nonprofit groups. Activities have included revegetation with livestock exclusion 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. Road crossings 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 June 15 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 affected 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 DFG 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 by the DFG Technical Review Team (TRT), 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, the benefit for targeted species, project costs, and positive or negative impacts to the environment. The need for work in particular drainages or sites is evaluated and reviewed by the TRT utilizing the watershed assessment and planning work funded through the program, and from other DFG and agency programs at work in California. The proposals, technical scores, and comments are forwarded to the California Coastal Salmonid Restoration Grants Peer Review Committee (PRC). The PRC also evaluates and scores each proposal, and makes the final recommendations for funding priorities. The Director of Fish and Game reviews the recommendations of the PRC, and makes the final funding decision. Grants and contracts are written for the approved action items and environmental documents are completed.

The Fisheries Restoration Grant Program operates Regional General Permit Number 12 (Corps File Number: 27922N) issued by San Francisco District of the U. S. Army Corps of Engineers (USACE). This permits allows the DFG, grantees, 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, 2003 and 2006) that have been evaluated by DFG biologists. NOAA Fisheries (formerly NMFS) and the US Fish and Wildlife Service have issued biological opinions, which are incorporated into the RGP, that address the impacts of the DFG's Restoration Program.

All projects listed in this document will operate under the current RGP except for the dam removal portions of major action items Project ID# 722794 Glenbrook Gulch Anadromous Fish Habitat Restoration and Project ID# 722715 East Mill Creek Barrier Removal Downstream. Therefore the grantee will be responsible for securing all required permits for the dam removal portion of these two major action items including but not limited to ACOE 404, North Coast Regional Water Quality Control Board 401 and DFG 1600. The Grantee will not proceed with on the ground implementation until all necessary permits and consultations are secured.

Grantee's 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 will submit an annual 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 DFG'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 the DFG Lake and Streambed Alteration Program (1600) webpage http://www.dfg.ca.gov/habcon/1600/. Activities such as installing replacement 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, and all required measures for species protection discussed in this document are incorporated into the agreement for each project.

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 42 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 three 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 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 habitat restoration actions include: installation of digger logs, spider logs, 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. California Conservation Corps (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) or Section 15333, Class 33 “Small Habitat Restoration Projects”. 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. The names of the 68 action items in this category are presented in a list in Appendix A, Table A-3. A detailed description of each action item in this element is also located in Appendix A, sorted by county.

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 extend 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 fill cut failure. 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 DFG and NOAA criteria concerning fish passage. Current NOAA fish passage guidelines can be found on the web at: http://swr.nmfs.noaa.gov/hcd/NMFSSCG.PDF . DFG fish passage guidelines can be found in Part IX of the *California Salmonid Stream Habitat Restoration Manual*, available at http://www.dfg.ca.gov/fish/Resources/HabitatManual.asp.

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 NOAA and DFG fish screen criteria can be found in Appendix S of the *California Salmonid Stream Habitat Restoration Manual.*

Small dam removal requires plan details regarding location of stream and channel armor, stream channel cross sections and a longitudinal profile, as well as specifics on sediment control, water diversion and fish relocation. Appropriately sized boulders are used when necessary to stabilize disturbed and /or erodible stream banks. Excess fill materials will be hauled to a site from which they will not reenter the stream channel and all anthropogenic trash is hauled offsite to an appropriate disposal site. Any additional disturbed soils will be seeded, mulched and planted with native plants. The goal is to reestablish the stream morphology through the project reach.

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 DFG and are implemented by grantees utilizing heavy equipment and some hand labor crews. During a pre-project inspection, the grantee and the DFG 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 grantee's signature, as a required element of the activity. The DFG 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/fish/Resources/HabitatManual.asp. 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.

Complete site plans and prescriptions for action items located in Del Norte, Humboldt, Siskiyou, Trinity, and Mendocino counties are available for review at the Department of Fish and Game, Northern Regional Office at 1455 Sandy Prairie Court, Suite J, Fortuna, California 95540. For an appointment to view this information, contact Gary Flosi at (707) 725-1072, Monday through Friday, between the hours of 9 a.m. and 4 p.m.

Complete site plans and prescriptions for action items located in San Mateo, Sonoma, Marin, and Napa counties are available for review at the Department of Fish and Game, Bay Delta Region, office of Senior Biologist Supervisor, Bob Coey, 7329 Silverado Trail, Yountville, California 94559. Appointments may be made by telephoning (707) 944-5572, Monday through Friday, between the hours of 9 a.m. and 4 p.m.

Complete site plans and prescriptions for action items located in Monterey and San Luis Obispo counties are available for review at the Department of Fish and Game, Central Region, office of Senior Biologist Supervisor, Margaret Paul, 3196 S. Higuera Street, Suite A, San Luis Obispo, California 93401. Appointments may be made by telephoning (805) 594-6175, Monday through Friday, between the hours of 9 a.m. and 4 p.m.

Complete site plans and prescriptions for the action item located in Los Angeles, Santa Barbara, and Ventura counties, 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 and 1933 Cliff Drive, Suite 9, Santa Barbara, CA 93109. Appointments may be made by telephoning (562) 342-7186, Monday through Friday, between the hours of 9 a.m. and 4 p.m.

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 DFG 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 DFG's current Natural Diversity Data Base (NDDB) for each project located in the entire fourteen-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 DFG biologist, or other qualified biological consultant, to avoid any potentially significant impacts shall become part of the work plan and incorporated into the measures required in the issued streambed alteration agreement (Fish and Game Code Section 1600 et seq.). The DFG’s grant managers will ensure that the grantee or responsible party is aware of, and implements, these site specific conditions during routine inspections. The DFG 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.

Second, a review of the DFG's NDDB for the entire fourteen-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 grants for each site will be conditioned to avoid impacts to any special status species that could potentially be affected at that site. The DFG will ensure that the grantee or responsible party is aware of all specific conditions that apply to their work site. Also, the DFG 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.

Third, all major action items listed in Appendix A will comply with DFG policies to conduct a paleontological survey. A qualified paleontologist(s) will be contracted to complete the surveys using current accepted protocols. Research will be done on available paleontological data repositories, review fossil resources with regional experts to identify possible areas of importance within the fourteen-county programmatic project area. Site specific detailed research will be done for projects sites deemed likely to encounter paleontological resources (Appendix D). There will be communication links between DFG grant managers and review of evaluation 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 qualified paleontologist(s), or other qualified consultant, to avoid any potentially significant impacts shall become part of the work plan and incorporated into the measures required in the issued streambed alteration agreement (Fish and Game Code Section 1600 et seq.). The DFGs grant managers will ensure that the grantee or responsible party is aware of, and implements, these site specific conditions during routine inspections. The DFG 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.

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 helps provide a measure of the benefits, insight, and guidance for future projects.

Activity during implementation is overseen by a DFG grant manager and 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 and that the correct materials and techniques are used so

that the objectives of the activities are met while 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 is designed to assess the effectiveness of project work types and should occur within one to three years after an action item is complete. The DFG 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 as described in the *California Salmonid Stream Habitat Restoration Manual*, Part VIII, Project Monitoring and Evaluation, or using new monitoring procedures developed under a DFG grant. Effectiveness monitoring addresses the physical response associated with an activity, such responses are generally more easily measured and interpreted. Biological response data especially that for anadromous fish, is more difficult to collect and interpret. Reliable assessment of anadromous salmonid response to habitat improvement prescriptions generally require many years of trend data. The DFG intends to address the biological response to habitat improvement through a coastal salmonid population monitoring plan which is currently under development in association with the National Oceanic Atmospheric Administration.

Complete monitoring specifications are included in the *California Salmonid Stream Habitat Restoration Manual* and on the DFG's web site, http://www.dfg.ca.gov/fish/Resources/HabitatManual.asp. Additional details on monitoring and reporting requirements are presented in Appendix B.

REFERENCES:

California Department of Fish and Game. Lake and Streambed Alteration Program (1600) webpage http://www.dfg.ca.gov/habcon/1600/

California Department of Fish and Game. 2000. Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities. The Resources Agency, State of California, Sacramento, CA.

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/fish/Resources/HabitatManual.asp.

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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.

APPENDIX A, Table A-3. Major Action Items

County	Project ID#	Project Type	Project Title	Agency
Del Norte	722824	HI	Sultan Creek Habitat Improvement	Rural Human Services
Del Norte	722825	HU	Terwer Creek Training and Sediment Control Project	Yurok Tribe Watershed Restoration Department
Del Norte	722885	HI	Wilson Creek Instream Habitat Enhancement	California Conservation Corps, Northern Service District, Fortuna Center
Del Norte	723013	HU	Terwer USFWS	Yurok Tribe
Del Norte	723038	HU	Wilson Creek Phase 2 Additional Sites	Pacific Coast Fish Wildlife and Wetlands Restoration Association
Humboldt	722715	HB	East Mill Creek Barrier Removal Downstream	Mattole Salmon Group
Humboldt	722716	HB	East Mill Creek Barrier Removal Upstream (was FRGP FP028)	Mattole Salmon Group
Humboldt	722730	HU	Francis Creek	Eel River Watershed Improvement Group
Humboldt	722735	HI	Redwood Creek Salmonid Habitat Improvement Project	Eel River Watershed Improvement Group
Humboldt	722738	HU	Road Decommissioning-Bluff Creek Watershed at Fish Lake	U.S. Forest Service Six Rivers National Forest
Humboldt	722808	HU	Middle VDR Phase 3 Upslope	Yager Environmental Stewards
Humboldt	722814	FP	North Fork Lost Man Creek Fish Passage Project	Redwood National Park
Humboldt	722840	HU	The 2007 Blue Goo Slide Stabilization Project	Eel River Salmon Restoration Project, PCFFA

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Humboldt	722841	HS	The 2007 Leggett Creek Bank Stabilization & Fish Habitat Project	Eel River Salmon Restoration Project, PCFFA
Humboldt	722871	FP	Mill (Watek) Creek Culvert Replacement	Humboldt County Public Works Department
Humboldt	722872	FP	South Fork Bear Creek Culvert Removal for Fish Passage	Mattole Restoration Council
Humboldt	722887	HR	Eel River Arundo Eradication	Eel River Watershed Improvement Group
Humboldt	722888	HR	Lower Maple Creek Riparian Corridor` Enhancement	Humboldt Fish Action Council
Humboldt	722889	HU	Ettersburg Area Sediment Reduction Project for Coho Recovery (FRGP HU130 Blue Slide)	Mattole Restoration Council
Humboldt	722897	HU	Iaqua Ranch Roads Sediment Reduction	Humboldt County Resource Conservation District
Humboldt	722899	HU	Rocky Gulch Road Decommissioning	Pacific Coast Fish Wildlife and Wetlands Restoration Association
Humboldt	722900	HU	Mattole Esturary Area Sediment Reduction (FRGP HU170 lower Mattole)	Mattole Restoration Council
Humboldt	722901	HU	Freshwater Creek Road Decommissioning, Phase III	Humboldt County Resource Conservation District
Humboldt	722902	HU	Elk River Road Decommissioning and Sediment Control, Phase II	Humboldt County Resource Conservation District
Humboldt	722903	HU	2008 Salmon Creek Road Decommissioning	Pacific Coast Fish Wildlife and Wetlands Restoration Association
Humboldt	723006	HB	Hall Creek Fish Passage	Caltrans

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Humboldt	723007	HB	Lindsey Creek Fish Passage	Caltrans
Humboldt	723010	HU	Mattole Bear Creek	Mattole Restoration Council
Humboldt	723011	HU	Coyote Creek Watershed Improvement additional Sites Project	Pacific Coast Fish Wildlife and Wetlands Restoration Association
Humboldt	723012	HU	Upper Redwood Lacks Creek Erosion Control additional sites	Pacific Coast Fish Wildlife and Wetlands Restoration Association
Humboldt	723014	HU	Upper Mattole Stream Crossing Decommissioning Project	Restoration Forestry
Humboldt	723015	HU	YES Sediment Reduction Project	Yager Environmental Stewards
Los Angeles	722834	HI	Solstice Creek Habitat Enhancement Project	California Conservation Corps
Marin	722772	HU	San Geronimo Creek Upland Habitat Restoration Project	Marin Open Space District
Mendocino	722767	HS	Lower Forsythe Creek Restoration Project	Bioengineering Institute
Mendocino	722781	HI	Upper Noyo River Wood Project	CCC Ukiah
Mendocino	722783	HI	Albion River Spawning Habitat Enhancement	California Conservation Corps
Mendocino	722794	HB	Glenbrook Gulch Anadromous Fish Habitat Restoration	California Department of Parks and Recreation
Mendocino	722831	HU	Kenny Creek and Mud Creek Sediment Reduction	Mendocino County RCD
Mendocino	722883	HI	Kenny Creek Habitat Improvement	Eel River Watershed Improvement Group
Mendocino	722894	HU	2008 Standley Creek Watershed Implementation Phase I, SF Eel River	Trout Unlimited

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Mendocino	722896	HU	Garcia Forest Signal Creek Watershed Implementation Project, Phase 1	The Conservation Fund
Mendocino	722927	FP	2008 Little Jack Creek Fish Passage	Trout Unlimited
Mendocino	722928	FP	Ancestor Creek Migration Barrier Removal Project	Mendocino County Department of Transportation
Mendocino	723009	HU	Hollow Tree Additional Sites	Trout Unlimited
Monterey	722803	HU	Williams Creek Erosion Prevention Implementation Project	Big Sur Land Trust
Napa	723017	HU	Demonstration Roads Improvements in the Napa River Watershed (includes Garden-Heath Canyon Roads 722826)	Napa Co. RCD/PWA
San Luis Obispo	722875	HR	San Luis Obispo Creek Watershed Arundo Management Program	Land Conservancy of San Luis Obispo County
San Mateo	722740	HB	Pescadero Creek Riparian Habitat Improvement Project	San Mateo County Parks and Recreation Division
San Mateo	722807	HU	Big Dipper Ranch Road Project	Midpeninsula Regional Open Space District
Santa Barbara	722838	HB	Gobernador Creek - Widdoes Fish Passage Enhancement Project	Community Environmental Council
Siskiyou	722806	SC	Little Shasta Fish Passage and Screening Project	Shasta Valley Resource Conservation District
Siskiyou	722886	HI	Scott River Off-Channel Habitat Enhancement	Siskiyou Resource Conservation District
Siskiyou	723004	WC	Shackleford Measuring Weir	DWR

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Siskiyou	723005	WD	Montague Measuring Weir	DWR
Siskiyou	723008	PM	Youngs' Fish Passage Project	Siskiyou RCD
Siskiyou	723016	SC	Jenner Lower Pump Fish Screen	Siskiyou RCD
Sonoma	722725	FP	Dutch Bill Creek Fish Passage Barrier Elimination	Gold Ridge Resource Conservation District
Sonoma	722731	HI	Fay Creek Pool Habitat Project	Gold Ridge Resource Conservation District
Sonoma	722788	HS	Green Valley Coho Enhancement IV	Gold Ridge Resource Conservation District
Sonoma	722789	HR	Riparian Restoration for Salmonid Recovery, Sonoma Creek	Sonoma Ecology Center
Sonoma	722882	HI	Salmon Creek Estuary Habitat Structures	Occidental Arts and Ecology Center
Trinity	722205	HU	Upper South Fork Road Decommissioning	Trinity County RCD
Trinity	722804	FP	Conner Creek Fish Passage Improvement Project	Trinity County Planning Department
Trinity	722816	FP	Packers Creek Bridge Fish Passage	USFS Shasta-Trinity NF
Trinity	723024	FP	Hall City Creek	Trinity County Public Works Department
Trinity/Humboldt	722199	HU	Monroe and Big slide creek Road Decommissioning Project	Trinity County RCD
Ventura	722764	FP	Lion Creek Bridge Replacement Project	Ventura County Resource Conservation District

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FP – Fish Passage at Stream Crossings
HB – Instream Barrier Modification
HI – Instream Habitat Restoration
HR – Riparian Restoration
HS – Bank stabilization
HU – Upslope Watershed Restoration
PM – Maintenance
SC – Fish Screening
WC – Water Conservation Measures
WD – Water Measuring Devices

California Department of Fish and Game

Natural Diversity Database

Selected Elements by Common Name

POSSIBLE SPECIES WITHIN THE BEAR HARBOR AND SURROUNDING QUADS FOR THE ANCESTOR CREEK MIGRATION BARRIER REMOVAL PROJECT LOCATED IN TOWNSHIP 5S R2E SECTION 33 MENDOCINO COUNTY.

	Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1	Cooper's hawk *Accipiter cooperii*	ABNKC12040			G5	S3	SC
2	Howell's montia *Montia howellii*	PDPOR05070			G3G4	S3.2	2.2
3	Humboldt County milk-vetch *Astragalus agnicidus*	PDFAB0F080		Endangered	G2	S2.1	1B.1
4	Mendocino Coast paintbrush *Castilleja mendocinensis*	PDSCR0D3N0			G2	S2.2	1B.2
5	Oregon coast paintbrush *Castilleja affinis ssp. litoralis*	PDSCR0D012			G4G5T4	S2.2	2.2
6	Pacific gilia *Gilia capitata ssp. pacifica*	PDPLM040B6			G5T3T4	S2.2?	1B.2
7	Point Reyes horkelia *Horkelia marinensis*	PDROS0W0B0			G2	S2.2	1B.2
8	Sonoma tree vole *Arborimus pomo*	AMAFF23030			G3	S3	SC
9	Whitney's farewell-to-spring *Clarkia amoena ssp. whitneyi*	PDONA05025			G5T2	S2.1	1B.1
10	coast fawn lily *Erythronium revolutum*	PMLIL0U0F0			G4	S2.2	2.2
11	coho salmon - central California ESU *Oncorhynchus kisutch*	AFCHA02034	Endangered	Endangered	G4	S2?	
12	foothill yellow-legged frog *Rana boylii*	AAABH01050			G3	S2S3	SC
13	leafy reed grass *Calamagrostis foliosa*	PMPOA170C0		Rare	G3	S3.2	4.2
14	leafy-stemmed mitrewort *Mitella caulescens*	PDSAX0N020			G5	S4.2	4.2
15	long-beard lichen *Usnea longissima*	NLLEC5P420			G4	S4.2	
16	maple-leaved checkerbloom *Sidalcea malachroides*	PDMAL110E0			G3G4	S3S4.2	4.2
17	marsh pea *Lathyrus palustris*	PDFAB250P0			G5	S2S3	2.2
18	osprey *Pandion haliaetus*	ABNKC01010			G5	S3	SC
19	pallid bat *Antrozous pallidus*	AMACC10010			G5	S3	SC
20	southern torrent salamander *Rhyacotriton variegatus*	AAAAJ01020			G3G4	S2S3	SC
21	summer-run steelhead trout *Oncorhynchus mykiss irideus*	AFCHA0213B			G5T4Q	S2	SC
22	western tailed frog *Ascaphus truei*	AAABA01010			G4	S2S3	SC
23	white-flowered rein orchid *Piperia candida*	PMORC1X050			G3	S3.2	1B.2

Exhibit A
Ancestor Creek Migration Barrier Removal Project
Statement of Work

Under direction of the Department of Fish and Game, and under the following conditions and terms, the Grantee will:

1. The goal of this project is to improve fish passage for Chinook and coho salmon and steelhead trout in Ancestor Creek, tributary to the upper Mattole River in Mendocino County. The objective is to improve access to approximately 2 miles of habitat, to increase spawning habitat for adult salmonids and rearing habitat for juvenile salmonids. In addition, the project will prevent 375 yds^3 of sediment from being delivered to the stream channel.

2. Conduct work on Ancestor Creek where it is crossed by Briceland Thorn Road. The project is located in Township 5S, Range 1E, Section 13 of the Shelter Cove 7.5 Minute U.S.G.S. Quadrangle, 40.0328707^0 N and 124.0201322^0 W, as depicted in Exhibit C, Project Location Map, which is attached and made part of this agreement by this reference.

3. Improve fish passage and prevent sediment delivery in Ancestor Creek by completing the following work:
   - Design engineered plans for the pipe arch installation to be submitted to the Grant Manager prior to project commencement. The plans will include details of construction, scaled drawings of the pipe arch, stream channel cross sections and a longitudinal profile, as well as specifics on traffic detour, sediment control, water diversion and fish relocation if necessary.
   - Implement plans for fish removal, water diversion and traffic detour.
   - Remove existing culvert and all associated fill including all instream stored sediment.
   - Excavate channel to designed width, depth and slope to expose natural channel morphology. Side slopes will be treated to match original contours above and below the road.
   - Construct and pour concrete footings on stable substrate.
   - Install pipe arch (16’-3” wide x 40’ long) on concrete footings.
   - Treat disturbed and /or erodible stream banks at the project site with appropriately sized boulders. Any additional disturbed soils will be seeded, mulched and planted with native plants.

4. The Grantee will not proceed with on the ground implementation until all necessary permits and consultations are secured.

5. The Grantee shall notify the Grant Manager a minimum of five working days before the project site is de-watered and the stream flow diverted. The notification will provide a reasonable time for Department personnel to supervise the

implementation of the water diversion plan and oversee the safe removal and relocation of salmonids and other fish life from the project area. If the project requires dewatering of the site, and the relocation of salmonids, the Grantee will implement the following measures to minimize harm and mortality to listed salmonids:

- Fish relocation and dewatering activities shall only occur between June 15 and October 31 of each year.
- The Grantee shall minimize the amount of wetted stream channel dewatered at each individual project site to the fullest extent possible.
- All electrofishing shall be performed by a qualified fisheries biologist and conducted according to the National Marine Fisheries Service, *Guidelines for Electrofishing Waters Containing Salmonids Listed Under the Endangered Species Act*, June 2000.
- The Grantee will provide fish relocation data to the Grant Manager on a form provided by the Department of Fish and Game.
- Additional measures to minimize injury and mortality of salmonids during fish relocation and dewatering activities shall be implemented as described in Part IX, pages 52 and 53 of the *California Salmonid Stream Habitat Restoration Manual.*

6. The stream crossing design and installation will meet flow carrying capacity required for a 100-year flood event as identified by specifications determined by NOAA Fisheries and the Department of Fish and Game, for adult and juvenile salmonid fish passage.

7. The project will follow the National Marine Fisheries Service (NMFS 2001) Guidelines for Salmonid Passage at Stream Crossings and DFG criteria for fish passage as described in the Third Edition, Volume II, Part IX, February 2003, of the *California Salmonid Stream Habitat Restoration Manual*. Designs shall be visually reviewed and authorized by NOAA Fisheries (or DFG) engineers prior to commencement of work.

8. All habitat improvements will be in accordance with techniques described in the Third Edition, January 1998, of the *California Salmonid Stream Habitat Restoration Manual*.

9. Work in flowing streams is restricted to June 15 through October 31. Actual project start and end dates, within this timeframe, are at the discretion of the Department of Fish and Game. Planting of tree seedlings will take place after December 1 or when sufficient rainfall has occurred to insure the best chance of survival of the seedlings. The standard for success is 80% survival of plantings or 80% ground cover for broadcast planting of seed, after a period of three years.

10. The Grantee will maintain the new crossing, inspect the crossing in a timely manner and remove debris as necessary during the storm season.

11. If the project will not be completed by March 31, 2010, and therefore the grantee will be requesting an amendment for time, this request and a justification for the delay resulting in the time request must also be submitted no later than December 1, 2009.

12. An annual report will be submitted each year, no later than December 1, detailing the work completed that field season. The annual report will include, but not necessarily be limited to the following where applicable:

    - implementation start and end dates
    - percentage of the project completed to date
    - dewatering and fish relocation data on DFG data sheet (to be provided by the DFG grant manager upon request)
    - projected start and end dates for work to be implemented the following season.

    The annual report will also include, on a site by site basis:

    - number of stream crossings upgraded
    - stream crossings treated for fish passage
    - length of stream habitat made accessible by fish passage treatment
    - sediment savings
    - spoils volumes
    - number of streambank sites treated
    - length of streambank protected or stabilized
    - area of feature installed within bankfull width
    - number of trees planted
    - area treated with planting.

13. Upon completion of the project, the Grantee shall submit two hard copies of a final written report and one electronic, *Microsoft Word* compatible, copy on a CD. The report shall include, but not necessarily be limited to the following information:
    - Grant number
    - Project name
    - Geographic area (e.g., watershed name)
    - Location of work – show project location using U.S.G.S. 7.5 minute topographical map or appropriately scaled topographical map
    - Geospatial reference/location (lat/long is preferred – defined as point, line, or polygon)
    - Project start and end dates and the number of person hours expended
    - Total of each fund source, by line item, expended to complete the project, breaking down grant dollars, by line item, and any other funding, including type of match (cash or in-kind service)
    - Expected benefits to anadromous salmonids from the project
    - Labeled before and after photographs of any restoration activities and techniques

- Specific project access using public and private roads and trails, with landowner name and address
- Complete as built project description
- Report measurable metrics for the project by responding to the restoration project metrics listed below.

Habitat Protection and Restoration Projects– Reporting Metrics (HB) (Report N/A to those that do not apply)

Habitat Projects: (all)
- Identify the watershed/sub-basin plan or assessment in which the project is identified as a priority.
- Name the priority habitat limiting factors identified in that plan that are addressed by the project
- Type of monitoring included in the project
    - Design spec achieved
    - Fish movement/abundance
- Number of stream miles treated/affected by the project within the project boundaries.

Fish Passage Improvement Projects (HB):
- Number of blockages removed or made passable.
- Number of miles made accessible to salmonids.

Upland Habitat Projects (HU)
- Number of cubic yards of sediment saved from entering the stream.

Instream Habitat Projects (HI)
- Description of instream treatments used, including site locations referenced to an established landmark, number of treatment sites, and any modifications to site/treatment design.

Riparian Habitat Projects (HR, HS)
- Number of acres treated (e.g., planted) according to plan
- Species and size of trees planted
- Number of trees/density of plantings
- Feet of stream bank stabilized and treatments used.

14. The Grantee will acknowledge the participation of the Department of Fish and Game, Fisheries Restoration Grant funds on any signs, flyers, or other types of written communication or notice to advertise or explain the Ancestor Creek Migration Barrier Removal Project.
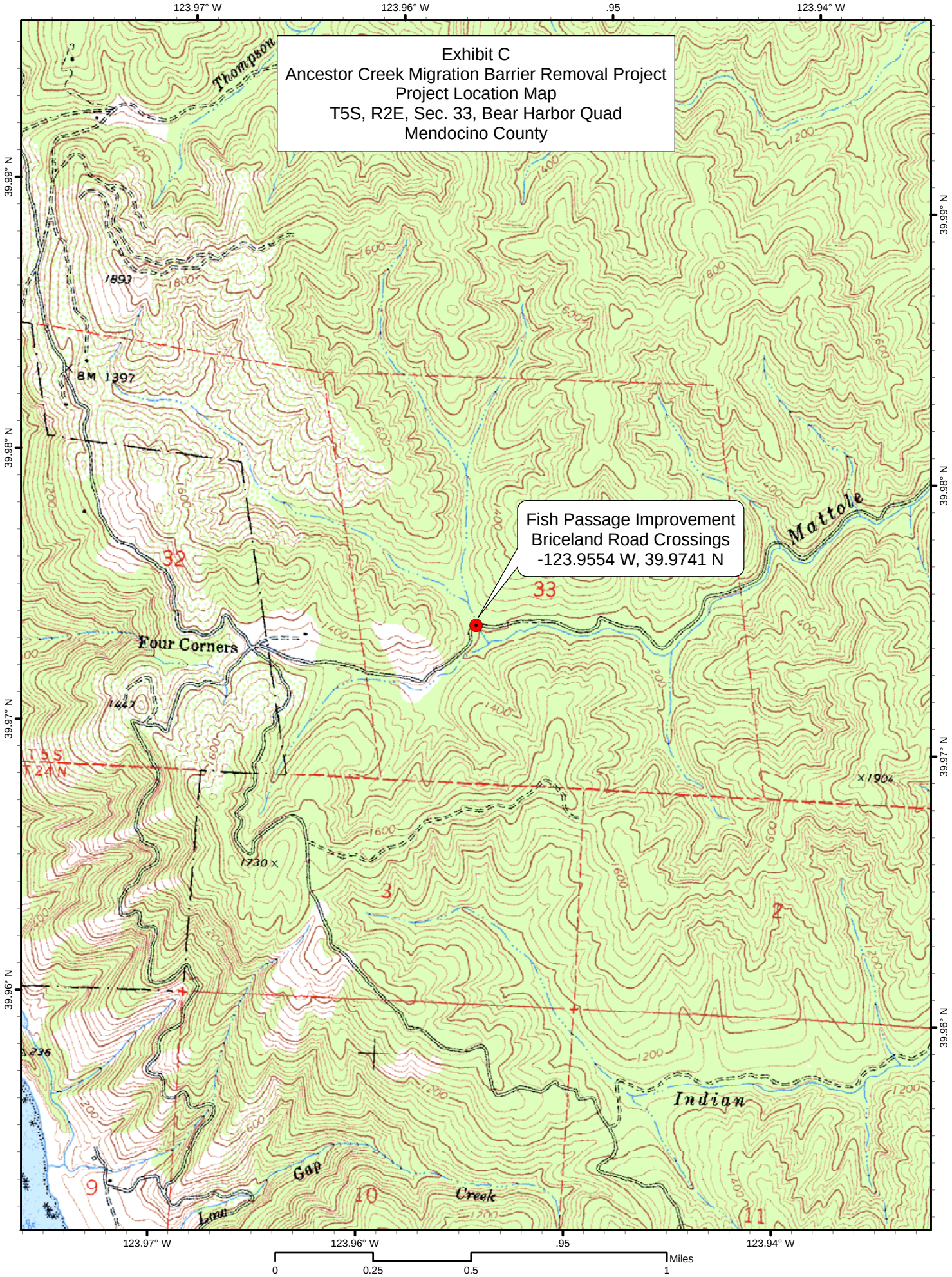
Exhibit 4: 2008 Mitigated Negative Declaration (Connor and Ancestor Creeks)