STATE OF CALIFORNIA

THE RESOURCES AGENCY

DEPARTMENT OF FISH AND GAME

MITIGATED NEGATIVE DECLARATION

FOR

THE 2010 FISHERIES RESTORATION GRANT PROGRAM
IN
DEL NORTE, HUMBOLDT, MARIN, MENDOCINO, MONTEREY, SAN LUIS OBISPO, SISKIYOU, SONOMA, AND TRINITY COUNTIES
AND
REQUIRED AGREEMENT REGARDING PROPOSED STREAM OR LAKE ALTERATION

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

INITIAL STUDY
AND
MITIGATED NEGATIVE DECLARATION
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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 nine-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:

- **Introduction - Project Description and Background Information**
- **Initial Study Environmental Checklist Form**
- **Explanation of Response to Initial Study Environmental Checklist Form**
- **Appendix A.**
    - **Table A-1 Exempt Items**
    - **Table A-2 Action Items**

- **Appendix B. Mitigation Measures, Monitoring and Reporting Program For the 2010 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 Archaeological Resources**

DETAILED PROJECT DESCRIPTION AND BACKGROUND INFORMATION

FOR

THE 2010 FISHERIES RESTORATION GRANT PROGRAM
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INTRODUCTION

The 2010 Fisheries Restoration Grant Program, formally known as "The 2010 Fisheries Restoration Grant Program in Del Norte, Humboldt, Marin, Mendocino, Monterey, San Luis Obispo, Siskiyou, Sonoma, and Trinity counties" (Restoration Program), is a “project” subject to review under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). The Restoration Program involves funding, in whole or in part, 118 habitat restoration items. The 59 action items, which are discussed in detail in the environmental analysis that follows, and are listed in Appendix A, Table A-2, are the principal focus of the environmental analysis set forth below.

The Restoration Program also involves 59 non-physical habitat restoration-related activities, all of which are exempt from CEQA. These exempt 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 exempt items are identified in Appendix A, Table A-1.

This initial study and the mitigated negative declaration (MND) analyze the environmental impacts that might result from implementation of the proposed Restoration Program. The initial study and MND also serve to address potential environmental impacts that may occur to the extent an individual restoration activity requires a Streambed Alteration Agreement (SAA) from the Department of Fish and Game (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 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 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. Poor ocean conditions resulting in the collapse of the marine food chain along with the varioius factors stated above has culminated in the population crash of the Central Valley Chinook salmon in 2008 and 2009. This event prompted the closure of recreational and commercial ocean salmon season in 2008 and 2009. 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, 2006 and 2009), 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. After CEQA review is completed the Director of Fish and Game reviews the recommendations of the PRC, and makes the final funding decision. Grants are written for the approved items.

The Fisheries Restoration Grant Program operates Regional General Permit Number 12 (RGP12) (Corps File Number: 27922N) issued by San Francisco District of the U. S. Army Corps of Engineers (USACE). This permit 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, 2006 and 2009) that have been evaluated by DFG biologists. The National Oceanic and Atmospheric Administration (NOAA Fisheries - formerly NMFS) and the US Fish and Wildlife Service have issued biological opinions, which are incorporated into the RGP12, that address the impacts of the DFG's Restoration Program.

In addition to RGP12, the Fisheries Restoration Grant Program operates Regional General Permit Number 78 (RGP78) (Corps File Number: SPL-2003-01123-BAH) issued by the Los Angeles District of the USACE. Like RGP12, RGP78 allows the DFG, grantees, and other individuals and groups to conduct fishery habitat restoration activities using the methods described in the *California Salmonid Stream Habitat Restoration Manual* (Flosi et al 1998, 2003, 2006 and 2009) for projects located in San Luis Obispo County. NOAA and the US Fish and Wildlife Service have issued biological opinions which are incorporated into the RGP78, that address the impacts of the DFG's Restoration Grant Program in San Luis Obispo County.

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 items are considered to fall into two categories corresponding to similar activities and requirements for CEQA review. These two categories of items are as follows:

Public Involvement, Planning, Research, Monitoring, Education and Habitat Acquisition - Exempt Items

Items in this category will include watershed evaluation, assessment, planning, technical training, public education, and habitat acquisition projects. The names of 59 exempt items in this category are presented in a list in Appendix A, Table A-1. These exempt 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 exempt 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 exempt items will not be discussed further in this document.

Restoration Element - Action Items

There is a notable difference in the level of activity found under this category. The names of the 59 action items in this category are presented in a list in Appendix A, Table A-2. A detailed description of each action item in this element is also located in Appendix A, sorted by county.

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 to stabilize banks and slopes, promote long-term shade and channel stability, and enhance large-wood recruitment. Indigenous stocks (when available) will be used for all planting projects. Upslope earthmoving and

culvert replacement require large size material and increased volumes to be moved by heavy equipment and, in so doing, involve certain limited construction activities. 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.

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. 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.

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.

Action items that stabilize stream banks or small stream-side landslides 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.*

Appendix A contains a list of 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 action item will be conditioned and controlled to prevent any potentially significant impacts under CEQA.

Complete site plans and prescriptions for action and exempt items located in Del Norte, Humboldt, Mendocino, Siskiyou, and Trinity 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 and exempt items located in Marin and Sonoma counties are available for review at the Department of Fish and Game, Bay Delta Region, office of Senior Biologist Supervisor, Gail Seymour, 7329 Silverado Trail, Yountville, California 94559. Appointments may be made by telephoning (707) 944-5579, Monday through Friday, between the hours of 9 a.m. and 4 p.m.

Complete site plans and prescriptions for action and exempt 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, 20 Lower Ragsdale Dr. Ste. 100, Monterey, California 93940. Appointments may be made by telephoning (831) 649-2882, Monday through Friday, between the hours of 9 a.m. and 4 p.m.

Complete site plans and prescriptions for exempt items in Los Angeles, Orange, San Bernadino, San Diego, 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 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 - 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 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 nine-county programmatic project area is attached to the statement of work for each 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. Archaeological 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 nine-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 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 ten-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 DFG 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 action items will be avoided or mitigated to below a level of significance under CEQA. Additional details regarding implementation of 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 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.