

Notice of Determination

Appendix D

To:  Office of Planning and Research
For U.S. Mail: P.O. Box 3044 Sacramento, CA 95812-3044
Street Address: 1400 Tenth St. Sacramento, CA 95814

From: Public Agency: California Dept of Fish and Game
Address: 830 S Street Sacramento, CA 95814
Contact: Holly Sheradin
Phone: (916) 327-9538

County Clerk
County of:
Address:

Lead Agency (if different from above):
Address:
Contact:
Phone:

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

State Clearinghouse Number (if submitted to State Clearinghouse): 2005042095

Project Title: California Department of Fish and Game - Year 2005 - Fisheries Restoration Grant Program Projects

Project Location (include county): Del Norte, Humboldt, Los Angeles, Marin, Mendocino, Napa, San Luis Obispo, San Mateo, Santa Barbara, Santa Cruz, Stanislaus, Sonoma, Trinity and Ventura Counties

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

This is to advise that the California Dept of Fish and Game has approved the above described project on May 19, 2005 and has made the following determinations regarding the above described project:

- 1. The project [ ] will [x] will not have a significant effect on the environment.
2. [ ] An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA. [x] A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [x] were [ ] were not made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [x] was [ ] was not adopted for this project.
5. A statement of Overriding Considerations [ ] was [x] was not adopted for this project.
6. Findings [ ] were [x] were not made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the Negative Declaration, is available to the General Public at: 830 S Street, Sacramento, CA 95814

Signature (Public Agency) [Handwritten Signature] Title Branch Chief
Date May 19, 2005

Date received for filing at OPR:



STATE OF CALIFORNIA  
THE RESOURCES AGENCY  
DEPARTMENT OF FISH AND GAME

PROPOSED MITIGATED NEGATIVE DECLARATION

FOR

THE 2005 FISHERIES RESTORATION GRANT PROGRAM  
IN  
DEL NORTE, HUMBOLDT, LOS ANGELES, MARIN, MENDOCINO, NAPA,  
SAN LUIS OBISPO, SAN MATEO, SANTA BARBARA, SANTA CRUZ, SISKIYOU,  
SONOMA, TRINITY AND VENTURA COUNTIES  
AND  
REQUIRED AGREEMENT REGARDING PROPOSED STREAM OR LAKE  
ALTERATION

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and

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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 2005 FISHERIES RESTORATION GRANT PROGRAM  
IN  
DEL NORTE, HUMBOLDT, LOS ANGELES, MARIN, MENDOCINO, NAPA,  
SAN LUIS OBISPO, SAN MATEO, SANTA BARBARA, SANTA CRUZ, 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 and natural events have limited the ability of fish to survive and successfully reproduce in coastal streams that historically produced large populations of salmon and steelhead. This proposed project is designed to increase populations of wild anadromous fish in coastal streams by restoring their habitat.

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

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

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

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

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

- Detailed Project Description and Background Information
- Initial Study Environmental Checklist Form
- Explanation of Response to Initial Study Environmental Checklist Form
- Appendix A. Project Action Items
- Appendix B. Mitigation Measures, Monitoring and Reporting Program For the 2005 Fisheries Restoration Grant Program
- Appendix C. Guidelines for Conducting Project Specific Endangered, Rare and Threatened Species Surveys

DETAILED PROJECT DESCRIPTION AND BACKGROUND INFORMATION  
FOR  
THE 2005 FISHERIES RESTORATION GRANT PROGRAM  
IN  
DEL NORTE, HUMBOLDT, LOS ANGELES, MARIN, MENDOCINO, NAPA,  
SAN LUIS OBISPO, SAN MATEO, SANTA BARBARA, SANTA CRUZ, SISKIYOU,  
SONOMA, TRINITY AND VENTURA COUNTIES  
AND  
REQUIRED AGREEMENT REGARDING PROPOSED STREAM OR LAKE  
ALTERATION  
INTRODUCTION

The proposed 2005 Fisheries Restoration Grant Program, formally known as "The 2005 Fisheries Restoration Grant Program in Del Norte, Humboldt, Los Angeles, Marin, Mendocino, Napa, San Luis Obispo, San Mateo, Santa Barbara, Santa Cruz, 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, of 111 habitat restoration action items in the fourteen identified counties. These action items, which are set forth in Appendix A, are the principal focus of the environmental analysis set forth below.

The Restoration Program also involves other restoration-related activities, all of which are exempt from CEQA. These other activities fall into two distinct categories. The first category includes 74 action items for which there is no prospect of direct or indirect physical changes to the existing environment. These activities, in particular, involve the award of grants for watershed evaluation, assessment, planning, technical training, and public education. (See generally *Id.*, § 21102; Cal. Code Regs., title 14, § 15262.) Each of these action items are identified in Appendix A.

The second category of Restoration Program action items not discussed in detail in the environmental analysis that follows involve small-scale salmonid habitat improvement projects implemented solely with hand labor. These 10 minor action items, all of which identified in Appendix A, have no potential to adversely affect existing environmental conditions. The actions, in turn, fall within a class of activities that are exempt from CEQA pursuant to a finding by the Secretary of the Resources Agency that the activities pose no risk of potentially significant environmental impacts. (Pub. Resources Code, § 21084; Cal. Code Regs., title 14, §§ 15300, 15306, 15307.) These individual action items are also identified in Appendix A.

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

#### PROJECT GOAL AND OBJECTIVES

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

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

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

#### BACKGROUND

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

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

There are many factors responsible for the decline of California coastal salmon and steelhead stocks. One important factor is the degradation of stream habitats. Activities in watersheds including logging, mining, road building, livestock grazing, water diversions, and dam construction have seriously impacted the ability of fish to survive

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

The Restoration Program was instituted as the critical need to restore salmon, and steelhead stream habitat was recognized. Guided by the *California Salmonid Stream Habitat Restoration Manual* (Flossi et al., 1998), hundreds of habitat restoration actions in this Restoration Program have been completed by government agencies and nonprofit groups. Activities have included revegetation with livestock 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 impacted by the avoidance of nesting or breeding seasons of birds and terrestrial animals.

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

#### PROJECT DESCRIPTION

The Department releases an annual Proposal Solicitation Notice (Solicitation) for proposals for fishery restoration, conservation education, and watershed assessment and planning work throughout California. Following initial review by the DFG Technical Review Team, proposals are sent to appropriate fishery staff for field review, comment, and scoring, using standardized evaluation criteria. The evaluation process requires consideration of benefits to the fishery resources, need for work in particular drainages or sites, benefit for targeted species, project costs, and positive or negative impacts to the environment. The resulting scored proposals and comments are forwarded to the California Coastal Salmonid Restoration Grants Peer Review Committee (PRC). The PRC evaluates and scores each proposal and makes recommendations for funding priorities. The Director of Fish and Game reviews the recommendations 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 permit allows the Department, contractors, and other individuals and groups to conduct fishery habitat restoration activities using methods described in the *California Salmonid Stream Habitat Restoration Manual* (Floss et al 1998 and 2003) that have been evaluated by Department biologists. NOAA Fisheries (formerly NMFS) and the US Fish and Wildlife Service have issued biological opinions that address the impacts of the Department's Restoration Program. The Regional General Permit will expire December 1, 2009.

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

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

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

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

Action items in this category will include watershed evaluation, assessment, planning, technical training, public education, and habitat acquisition projects. The names of 74 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 10 action items in this category are presented in a list in Appendix A, Table A-2. The designs of the action items have been reviewed by the Department and will be implemented by the California Conservation Corps (CCC) and other hand labor crews. These crews and their crew supervisors are trained by Department personnel on life cycle and habitat needs of salmon and steelhead trout, as well as other listed species within the geographic scope of the activity. The crews and their supervisors also attend workshops and technical training on salmonid stream habitat restoration techniques. Department personnel closely supervise all stream restoration actions implemented under this restoration element. Department personnel inspect each action item site for compliance at least once before work begins, once during implementation, and once at the end of a restoration activity.

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

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

#### Restoration Element - Major Action Items

There is a notable difference in the level of activity found under this category. A description of each action item (111 total) in this element is located in Appendix A. Complete site plans and prescriptions for action items located in Del Norte, Humboldt, Siskiyou, Trinity, and portions of Mendocino counties are available for review at the Department of Fish and Game Northern California-North Coast Regional Office at 601 Locust Street, Redding, California 96001. For an appointment to view this information, contact Kevin Gale at (530) 225-2462, Monday through Friday, between the hours of 8 a.m. and 5 p.m. This information is also available for review at the Fortuna Field office, 1455 Sandy Prairie Ct., Suite J, Fortuna, CA 95540. For an appointment to view this information, contact Gary Flosi at (707) 725-1072, Monday through Friday, between the hours of 8 a.m. and 5 p.m.

Complete site plans and prescriptions for action items located in Marin, Napa, San Luis Obispo, San Mateo, Santa Cruz, Sonoma, and portions of Mendocino counties, are available for review at the Department of Fish and Game, Central Coast Region, office of Senior Biologist Supervisor, Bob Coey, 7329 Silverado Trail, Yountville, California 94559. Appointments may be made by telephoning (707) 944-5573, Monday through Friday, between the hours of 8 a.m. and 5 p.m.

Complete site plans and prescriptions for the action item located in 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. Appointments may be made by telephoning (562) 342-7186, Monday through Friday, between the hours of 8 a.m. and 5 p.m.

These items require larger size material and increased volumes to be moved by heavy equipment and, in so, doing involve certain limited construction activities. This category uses many of the same instream habitat restoration techniques discussed in the previous element. In addition, upslope earthmoving and culvert replacement activities are also included.

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

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

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

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

All work, except for the revegetation, will take place during the summer and fall (low flow period) and shall be completed before the first significant seasonal rainfall. Planting of seedlings will take place after December 1, or when sufficient rainfall has occurred, to ensure the best chance of survival of the seedlings, but in no case later than April 1. All habitat improvements will be done in accordance with techniques described in the *California Salmonid Stream Habitat Restoration Manual*.

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

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

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

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

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

items. In all cases, disruption of existing vegetation will be minimized.

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

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

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

#### Environmental Assessment of Each Major Action Item

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

negative effects on the environment, including such effects on endangered, rare, or threatened species and their habitat.

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

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

Through careful design, scheduling, and monitoring, any and all potentially significant impacts associated with the major action items will be avoided or mitigated to below a level of significance under CEQA. Additional details regarding implementation of major action items, including required mitigation measures, are detailed in the environmental checklist section below.

#### Monitoring

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

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

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

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

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

B.

REFERENCES:

- California Department of Fish and Game. 1994. A Field Guide to Stream and Lake Alteration Agreements. Environmental Services Division. Calif. Fish Game.
- California Department of Fish and Game. 1997. Guidelines for Assessing the Effects of Proposed Developments on Rare and Endangered Plants and Plant Communities. Environmental Services Division. Calif. Fish Game.
- Flosi, G, S. Downie, J. Hopelain, M. Bird, R. Coey, and B. Collins. 1998. *California Salmonid Stream Habitat Restoration Manual*. Third Edition. Calif. Fish and Game. The most current version of the manual is available at: <http://www.dfg.ca.gov/nafwb/manual.html>. A hard copy of the manual may be requested from the California Department of Fish and Game, Native Anadromous Fish and Watershed Branch, attn. Habitat Restoration Coordinator, 830 S St., Sacramento, CA 95814.
- Flosi, G, S. Downie, M. Bird, R. Coey, and B. Collins. 2003. *California Salmonid Stream Habitat Restoration Manual*. Volume II, Third Edition. Calif. Fish and Game. The most current version of the manual is available at: <http://www.dfg.ca.gov/nafwb/manual.html>. A hard copy of the manual may be requested from the California Department of Fish and Game, Native Anadromous Fish and Watershed Branch, attn. Habitat Restoration Coordinator, 830 S St., Sacramento, CA 95814.
- Hagans and Weaver. 1994. Handbook for Forest and Ranch Roads. 161 p. Prepared by William E. Weaver, Ph.D. and Danny K. Hagans, Pacific Watershed Associates for the Mendocino County Resource Conservation District, 405 Orchard Ave., Ukiah, CA 95482.

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### ENVIRONMENTAL CHECKLIST FORM

1. Project Title: The 2005 Fishery Restoration Grants Program in Del Norte, Humboldt, Los Angeles, Marin, Mendocino, Napa, San Luis Obispo, San Mateo, Santa Barbara, Santa Cruz, Siskiyou, Sonoma, Trinity and Ventura counties
2. Lead Agency Name and Address:  
  
California Department of Fish and Game  
Native Anadromous Fish and Watershed Branch  
830 S Street  
Sacramento, CA 95814-7023
3. Contact Person and Phone Number:  

Bob Coey	Gary Fiosi	Mary Larson
(707) 944-5582	(707) 725-1072	(562) 342-7186
Central Coast Region	Northern California-	South Coast Region
Post Office Box 47	North Coast Region	4665 Lampson Avenue
Yountville, CA 94599	1455 Sandy Prairie Ct. Ste J	Los Alamitos, CA 90720
	Fortuna, CA 95540	
4. Project Location: Various sites in Del Norte, Humboldt, Los Angeles, Marin, Mendocino, Napa, San Luis Obispo, San Mateo, Santa Barbara, Santa Cruz, Siskiyou, Sonoma, Trinity and Ventura counties (Appendix A).
5. Project Sponsor's Name and Address:  
California Department of Fish and Game  
Native Anadromous Fish and Watershed Branch  
830 S Street  
Sacramento, CA 95814-7023
6. General Plan Designation: Various
7. Zoning: Various
8. Description of Project: Implementation of 111 major action items for restoration of anadromous salmonid habitat (Appendix A). These action items include measures to improve anadromous fish passage, reduce erosion and sedimentation, enhance instream habitat, improve water quality and improve juvenile survival.
9. Surrounding Land Uses and Setting: Briefly describe the project's surroundings: Primarily forest lands used for timber production. Some action items will be located in agricultural lands.
10. Other Public Agencies Whose Approval Is Required: U.S Army Corps of Engineers, North Coast Regional Water Quality Control Board, Bay Area Regional Water Quality Control Board, Central Coast Regional Water Quality Control Board, Los Angeles Regional Water Quality Control Board.

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**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

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

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

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

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

\_\_\_\_\_  
Larry Week, Chief, Native Anadromous Fish and Watershed Branch

\_\_\_\_\_  
Date

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

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

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

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

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

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

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

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

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

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

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

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



EXPLANATION OF RESPONSES TO  
INITIAL STUDY ENVIRONMENTAL CHECKLIST

I. AESTHETICS

- a) The project will not have an adverse effect on a scenic vista. Such an impact will not occur because the project will stabilize, restore, and revegetate damaged and eroded sites to produce a more natural and esthetically pleasing appearance.
- b) The project will not damage scenic resources such as trees, rock outcroppings, and historic buildings. Such an impact will not occur because the project will not disturb large trees or other scenic features in the process of restoring damaged sites.
- c) The project will not substantially degrade the existing visual character or quality of the work sites and their surroundings. Such an impact will not occur because in most cases the restoration project will restore the natural character of disturbed sites. Where non-natural structures (such as fish screens) are constructed, they will be of small size and compatible with the appearance of with their surroundings.
- d) The project will not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area of the worksites. Such an impact will not occur because none of the restoration project action items require installation of artificial lighting.

II. AGRICULTURE RESOURCES

- a) The project will not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. Such an impact will not occur because most project worksites are located away from FMMP designated farmland. Project actions associated with farmland (such as fish screens) are designed to allow continued use of farmland with reduced impacts to anadromous salmonids.
- b) The project will not conflict with existing zoning for agricultural use or a Williamson Act contract. Fish habitat restoration actions will not change existing land use.
- c) The project will not involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland to non-agricultural use. Fish habitat restoration actions are either away from, or are compatible with, existing agricultural uses.

### III. AIR QUALITY

- a) The project will not conflict with or obstruct implementation of the applicable air quality plan. Such an impact will not occur because implementation of the project does not create any features that would be a source of air pollution. Use of vehicles and heavy equipment during construction will be on a limited scope and a short duration and is not expected to adversely affect air quality.
- b) The project will not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Such an impact will not occur because of the limited scope of construction activities and the fact that work sites are located in rural areas that are in overall attainment of air quality standards.
- c) The project will not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors). Such an impact will not occur because the project involves no ongoing sources of air pollution.
- d) The project will not expose sensitive receptors to substantial pollutant concentrations. Such an impact will not occur because the project will not significantly increase pollutant concentrations.
- e) The project will not create objectionable odors affecting a substantial number of people. Project actions are designed to restore natural habitat conditions for salmonids, and will not create any stagnant water that might produce objectionable odors.

### IV. BIOLOGICAL RESOURCES

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

- b) The project will not have a substantial adverse effect on any riparian habitat or other sensitive natural communities identified in local or regional plans, policies and regulations, or by the California Department of Fish and Game or U. S. Fish and Wildlife Service. Such an impact will not occur because the project actions are designed to correct past habitat degradation and restore and enhance riparian habitat and associated upland habitats.
- c) The project will not have a substantial adverse effect on Federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. The project actions will have either no effect on wetlands or will be beneficial to wetlands.
- d) The project will not substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. The project will enhance the movement of anadromous fish by the replacement or removal of culverts and bridges that are barriers to fish migration.
- e) The project will not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Such an impact will not occur because project actions are designed to restore and enhance biological resources. Some minor disturbance of grasses and shrubs will occur where stream structures are keyed into the stream banks. Care will be taken not to disturb any mature trees. Riparian vegetation will be reestablished where construction activities disturb existing plants, and additional native plants will be planted to enhance the riparian vegetation.
- f) The project will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. Such a conflict will not occur because the project restoration actions will not have a significant adverse impact on any species or habitat. Project actions are designed to restore the natural character of the fish and wildlife habitat at the project work sites. The project specifically supports the California Salmon, Steelhead Trout and Anadromous Fisheries Program Act (Fish and Game Code Section 6900 et. seq.)
- g) Species Impacts for the following species include (mitigation measures are included in Appendix B):
  - g.i) Point Arena mountain beaver (*Aplodontia rufa nigra*). The Point Arena mountain beaver (PAMB) is a burrowing rodent found in coastal Mendocino County, in an area of approximately 24 square miles (from about 2 miles

north of Bridgeport Landing south to about 5 miles south of the town of Point Arena, and from the coast to about 5 miles inland). Mountain beaver inhabit underground burrow systems, associated with moist areas with well drained soils and lush herbaceous vegetation. PAMB populations are typically found in riparian, coastal scrub, or dune scrub habitats; however they may occur in any habitat with brushy or herbaceous cover. PAMB presence is evaluated by surveying for burrows of characteristic size and shape, with signs of recent activity.

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

- g ii) California freshwater shrimp (*Syncaris pacifica*). As an aquatic species California freshwater shrimp (CAFS) depend on the availability of slow moving perennial water and suitable habitat to survive. Habitat for CAFS as described in the Recovery Plan consists of:
- -Slow moving streams 12-36 inches in depth
  - -Exposed live roots of trees such as willow or alder
  - -Undercut banks greater than 6 inches
  - -Overhanging woody debris or stream vegetation and vines including stinging nettles, grasses, vine maple and mint.

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

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

- Eliminating grazing in the riparian corridor
- Reclaiming riparian vegetation through plantings and increased setbacks in agricultural settings
- Removing summer dams (and culvert) and replacing summer crossings with bridges
- Improving road drainage and maintenance that reduces water and sediment delivery to streams
- Reversing the impacts of flood control practices by replacing vegetation and large woody debris, and by helping restore flood plains and reducing channeling

- Stabilizing banks with vegetation that promotes CAFS habitat
- Removing migration barriers

While salmonid restoration projects typically enhance or create these habitat and instream conditions that are favorable for CAFS and associated native aquatic species, project activities in wetted stream habitats may directly impact individuals when present. Whereas project activities in dry stream habitats, will not have a direct impact on individuals. Where habitat exists, instream project activities may indirectly impact the species through the loss of habitat. Mitigation measures are implemented to avoid directly impacting individuals when present however, some short term direct and indirect impacts can occur.

Direct impacts may include

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

Indirect impacts may include

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

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

g iv) Least Bell's vireo (*Vireo bellii pusillus*). Impacts to the species have the potential to occur when as a result of removal of riparian vegetation (willows and low shrubs) during the spring and summer or from disturbance within a 0.25 mile radius of next sites. Typically removal of riparian vegetation for

the purpose of implementing a project does not occur, but is minimal when it does. Many projects involve restoring the riparian corridor that is absent. Removal of willow branches for revegetation at restoration sites has the potential to degrade existing vireo habitat. Noise from heavy equipment has the potential to cause nesting birds to abandon nests. All impacts are temporary and can be minimized to avoid take of the species.

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

#### V. CULTURAL RESOURCES

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

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

#### VI. GEOLOGY AND SOILS

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

- b) The project will not result in substantial soil erosion or the loss of topsoil. Such an impact will not occur because implementation of the restoration project is designed to contribute to an overall reduction in erosion and sedimentation. Existing roads will be used to access work sites. Ground disturbance at most work sites will be minimal, except for road improvements or decommissioning. Road improvements and decommissioning will involve moving large quantities of soil from road fills and stream crossings to restore historic land surface profiles and prevent chronic erosion and sediment delivery to streams. The potential for substantial soil loss associated with road improvement and decommissioning will be avoided through implementation of the mitigation measures presented in Appendix B, Mitigation Measures, Monitoring and Reporting Program. As a result, mitigation measures will ensure that any potentially significant impacts are avoided or mitigated to below a level of significance.
- c) Some project worksites are on unstable soils; however, the project will not increase the risk of landslides, lateral spreading, subsidence, liquefaction, or collapse. The project actions are designed to stabilize conditions at these sites in order to reduce sediment delivery to salmonid habitat. Actions implemented to stabilize sites may not be successful in all cases, but site instability will not be increased when compared to existing conditions.
- d) Some project work sites will be located on expansive soil; however, the project will not create substantial risks to life or property. Such an impact will not occur because the project will create no habitations, and the majority of the restoration actions will not create rigid structures that could be damaged by expansive soils. The few rigid structures to be created by the project (such as fish screens) will be engineered to withstand expansive soils, if they are present.
- e) The project will not create any sources of waste water requiring a septic system.

#### VII. HAZARDS AND HAZARDOUS MATERIALS

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

- b) The project will not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. At work sites requiring the use of heavy equipment, there is a small risk of an accident upsetting the machine and releasing fuel, oil, and coolant. The potential for accidental release will be reduced to a less than significant level through implementation of the mitigation measures presented in Appendix B, Mitigation Measures, Monitoring and Reporting Program. As a result, mitigation measures will ensure that any potentially significant impacts are avoided or mitigated to below a level of significance.
- c) The project will not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Such impact is avoided because the project will not create any feature that will emit hazardous substances.
- d) The project worksites are not located on any site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.
- e) No project work site is located within an airport land use plan or within two miles of a public airport or public use airport.
- f) No project work site is located within the vicinity of a private airstrip.
- g) The project will not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Except for the case of road decommissioning, the project has no effect on access. The planned decommissioning of selected unused wild land roads will not have a significant impact on emergency vehicle access.
- h) The project will not expose people or structures to a significant risk of loss, injury, or death involving wild land fires. At work sites requiring the use of heavy equipment, there is a small risk of an accidental spark from equipment igniting a fire. The potential for accidental fire will be reduced to a less than significant level through implementation of the mitigation measures presented in Appendix B, Mitigation Measures, Monitoring and Reporting Program. As a result, mitigation measures will ensure that any potentially significant impacts are avoided or mitigated to below a level of significance.

#### VIII. HYDROLOGY AND WATER QUALITY

- a) The project will not violate any water quality standards or waste discharge requirements. There is the potential for minor short-term increase in turbidity during installation of instream structures or culvert removal, however the mitigation measures described in Appendix B Mitigation, Monitoring and

Reporting will assure that the project actions are in compliance with water quality standards. As a result, mitigation measures will ensure that any potentially significant short-term impacts are avoided or mitigated to below a level of significance.

- b) The project will not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. Upslope restoration activities will return drainage to historic patterns thereby decreasing surface runoff and increasing infiltration to the ground water.
- c) The project will not substantially alter the existing drainage pattern of the work sites in a manner that would result in substantial erosion or siltation on- or off-site. Such an impact will not occur because the project actions are designed to produce decreased erosion overall. Instream habitat structures, such as boulder weirs or flow deflectors, will produce local redistribution of sediments. These structures will produce a local redistribution of bed load, facilitating the deposition of spawning gravel in riffles, and improving scour to maintain pools for juvenile fish habitat. This local redistribution of bed load will not produce a net increase of erosion.
- d) The project will not substantially alter the existing drainage pattern of the work sites, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. The project will decrease the risk of flooding through upslope restoration activities that will return drainage to historic patterns, thereby increasing infiltration and decreasing surface runoff.
- e) The project will not create or contribute runoff water that would exceed the capacity of existing or planned storm-water drainage systems, or provide substantial additional sources of polluted runoff. Such an impact will not occur because upslope restoration activities will stabilize slopes and return drainage to historic patterns, thereby decreasing surface runoff and decreasing the silt load delivered to streams in the area of the project.
- f) The project will not substantially degrade water quality. During placement of stream habitat structures and culvert replacement, some minor turbidity may be generated. The potential for degradation of water quality will be reduced to a less than significant level through implementation of the mitigation measures presented in Appendix B, Mitigation Measures, Monitoring and Reporting Program. Some short-term minor increase in turbidity may also occur as the streambed around instream structures adjusts during the first high stream flow following activity completion. However, this is not expected to produce a significant increase over background turbidity. As a result, mitigation measures will ensure that any potentially significant short-term impacts to water quality are avoided or mitigated to below a level of significance.

- g) The project will not place housing within a 100-year flood hazard area as mapped on any flood hazard delineation map. No housing will be created as part of this project.
- h) The project will not place within a 100-year flood hazard area structures which would significantly impede or redirect flood flows. Culvert removal and replacement to be done as part of the project will remove existing impediments to flood flows. Instream habitat structures, such as boulder weirs, deflectors, and bank armor, are built to change the direction and velocity of stream flow. However, these structures are small (sized to affect conditions in the low flow channel) and will not impede flood flows.
- i) The project will not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam. Such an impact will be avoided because all instream structures to be created are small and will not significantly impede flood flows.
- j) The project will not expose people or structures to a significant risk of inundation by seiche, tsunami, or mudflow. Such an impact will not occur because project actions are designed to improve or stabilize conditions at the work sites. Upslope restoration actions will reduce the chance of mudflow by stabilizing disturbed areas, and restoring natural drainage patterns. Project work sites are not located in areas at risk to inundation by seiche or tsunami.

#### IX. LAND USE AND PLANNING

- a) The project will not physically divide an established community. This impact will not occur because no culvert removal or road decommissioning is proposed in any established community.
- b) The restoration activities that comprise this project do not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. Such an impact will not occur because the project's restoration activities are designed to be compatible with local land use plans and ordinances.
- c) The project will not conflict with any applicable habitat conservation plan or natural community conservation plan. Such an impact will not occur because project actions are designed to improve aquatic habitat conditions without adversely affecting any other species or their habitats.

#### X. MINERAL RESOURCES

- a) The project will not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. Such an impact will not occur because project actions are only designed to stabilize and restore habitat and soils within the actions area.
- b) The project will not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Such an impact will not occur because no mineral resource recovery sites occur at the project work sites.

#### XI. NOISE

- a) The project will not result in exposure of persons to, or generation of noise levels in excess of, standards established in the local general plan or noise ordinance, or applicable standards of other agencies. There may be a minor temporary increase in noise levels at those work sites requiring the use of heavy equipment. While such short-term increase in noise will not produce a significant increase in the noise level in the general environment, there is a potential for equipment noise to affect workers in close proximity to equipment producing noise levels  $\geq 85$  db, such as chainsaws or backhoes. However, such an impact will not occur because personnel operating noisy equipment will be required to wear hearing protection. As a result, mitigation measures will ensure that any potentially significant noise impacts are avoided or mitigated to below a level of significance.
- b) The project will not result in exposure of persons to, or generation of, excessive ground-borne vibration or ground-borne noise levels. Such an impact will not occur because only minor amounts of ground-borne vibration or noise will be generated short-term at those work sites requiring the use of heavy equipment.
- c) The project will not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Such an impact will not occur because most project structures are passive (i.e., contain no moving parts). The only exceptions are the proposed fish screens, which will contain moving brushes to clean the screens. These brushes are driven by slow speed (10-15 RPM) water wheels and will not substantially increase ambient noise levels where installed.
- d) The project will not result in a substantial temporary, or periodic, increase in ambient noise levels in the project vicinity above levels existing without the project. Such an impact will not occur because only minor amounts of noise will be generated temporarily at those work sites requiring the use of heavy equipment. At those sites near nesting or breeding sites for listed species, heavy equipment will only be used outside the sensitive periods for nesting or

breeding, as described in Appendix B, Mitigation Measures, Monitoring and Reporting Program. As a result, mitigation measures will ensure that any potentially significant noise impacts are avoided or mitigated to below a level of significance.

- e) None of the project work sites are located within two miles of a public airport or public use airport.
- f) None of the project work sites are located within the vicinity of a private airstrip.

#### XII. POPULATION AND HOUSING

- a) The project will not induce substantial population growth in an area, either directly or indirectly. Such an impact will not occur because the project will not construct any new homes, businesses, roads, or other human infrastructure.
- b) The project will not displace any existing housing and will not necessitate the construction of replacement housing elsewhere.
- c) The project will not displace any people and will not necessitate the construction of replacement housing elsewhere.

#### XIII. PUBLIC SERVICES

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

#### XIV. RECREATION

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

#### XV. TRANSPORTATION/TRAFFIC

- a) The project will not cause a substantial increase of traffic, in relation to the existing traffic load and capacity of the street system. Such an impact will not occur because the project will result in only minor temporary increases in traffic to primarily wild land sites during implementation of habitat improvement measures.
- b) The project will not exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways. Such an impact will not occur because the habitat improvement actions will not generate a significant amount of traffic at each individual work site and because the work sites are dispersed throughout the coastal counties.
- c) The project will not result in any change in air traffic patterns.
- d) The project will not alter roads in any way that will substantially increase hazards to transportation. The proposed project will reduce hazards to transportation, because the proposed project will correct and reduce landslide and erosion damage on the selected rural roads.
- e) The project will not result in inadequate emergency access. Such an impact will not occur because during replacement of small road crossings, an alternate route for traffic will be provided around the construction.
- f) The project will not significantly affect parking capacity or demand for parking.
- g) The project will not conflict with adopted policies, plans, or programs supporting alternative transportation.

#### XVI. UTILITIES AND SERVICE SYSTEMS

- a) The project will not produce wastewater.
- b) The project will not require, or result in the construction of, new water or wastewater treatment facilities or expansion of existing facilities. Such an impact will not occur because the project will not produce wastewater.
- c) The project will not cause significant adverse environmental effects associated with the construction of new storm water drainage facilities or expansion of existing facilities.
- d) The project will have sufficient water supplies available to serve the project from existing entitlements and resources.
- e) The project will not produce wastewater.

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

XVII. MANDATORY FINDINGS OF SIGNIFICANCE

- a) The project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. Such a potential does not exist because the project will be implemented in a manner that will avoid short-term adverse impacts to rare plants and animals, and cultural resources during construction; the mitigation measures that will be implemented to avoid short-term impacts to rare plants and animals, and cultural resources are described in Appendix B, Mitigation Measures, Monitoring and Reporting Program. The Project activities will provide a long-term benefit to both anadromous salmonids and other fish and wildlife.
- b) The project does not have adverse impacts that are individually limited, but cumulatively considerable. Cumulative adverse impacts will not occur because potential adverse impacts of the project are only minor and temporary in nature. It is the goal of the project that the beneficial effects of habitat enhancement actions will be cumulative over time and contribute to the recovery of listed anadromous salmonids.
- c) The project does not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly. The habitat enhancement measures implemented as part of this project will contribute to improved water quality, increased soil stability, and the recovery of listed salmonids, all of which will be beneficial to human beings.



**Appendix A**

**Action Items Proposed for Funding**

Table A-1 Exempt Project List

<u>Proj #</u>	<u>Proj Type*</u>	<u>Project Title</u>	<u>Grant Recipient</u>
20	AC	AmeriCorps WSP Match	CCC - Fortuna
35	ALL	Adaptive Watershed Projects 2004	DFG - Sacramento
221	ED	CCSE Education Program	Central Coast Salmon Enhancement
56	ED	Scott River Restoration Education	Etna Union Elementary School
79	ED	Watershed Science Somoma Valley	Sonoma Ecology Center
250	ED	Salmon & Riparian Education	Trinity RCD
128	HA	Wolverton Gulch Easement Project	North Coast Regional Land Trust
259	HA	Arroyo Seco - McKinsey Ranch	The Nature Conservancy
196	MD	South Central Coast Coho Program	DFG - Aptos
12	MD	Mill Creek Fish Monitoring	Rowdy Creek Fish Hatchery
36	MD	Sci Aid Central & South Coast	DFG - Fortuna
208	MD	Validation Monitoring Prairie Creek	Humboldt State Foundation
40	MD	Sproul Cr. DSM	Eel River Salmon Restoration
153	MD	Life History Central Coast	NOAA Fisheries - Santa Cruz
9	MD	Topanga Creek Monitoring	RCD Santa Monica Mt.
10	MD	Malibu & Arroyo Sequit Creeks	RCD Santa Monica Mt.
205	MD	Scott River Flow Gaging	Siskiyou RCD
63	MD	Salmon River Weak Stocks Assess	Salmon River Restoration Council
200	MD	Scott River Water Quality	Siskiyou RCD
119	MD	Juvenile Monitoring Klamath Estuary	Yurok Tribal Fisheries
261	MD	Steelhead Distribution Salinas	UC Davis
48	MD	Juvenile Monitoring Humboldt Bay	DFG - Arcata
202	MD	Scott River DSM	Siskiyou RCD
54	MD	Coastal Mendocino Monitoring	DFG - AFRAMP
52	MD	Lower Redwood DSM	DFG - AFRAMP
51	MD	Upper Redwood DSM	DFG - AFRAMP
224	MD	Shasta & Scott Juvenile Emigration	Shasta Valley RCD
260	MD	Juvenile Abundance Trends	Humboldt State Foundation
71	MO	Effects Fire Canoe Creek	CA State Parks - North Coast Dist.
273	MO	Effectiveness Restoration Projects	Shasta Valley RCD
284	MO	Upper Mattole Monitoring Phase II	Mattole Restoration Council
211	OR	Lower Eel O & S	Humboldt County RCD
230	OR	Shasta Valley RCD Coordinator	Shasta Valley RCD
108	OR	Napa River Basin	Napa County RCD
39	OR	Passage Assessment Database	PSMFC
37	OR	Coho Recovery Data	DFG - WHDAB
33	OR	CHRPD 2005-2006	DFG - Sacramento
219	OR	Lindsay Creek Watershed Group	RCAA
120	OR	Smith River Watershed Coordinator	Del Norte County
276	OR	HBWAC Support	RCAA
129	OR	Jacoby & Freshwater Easements	Jacoby Creek Land Trust
141	PI	FishNet 4C	County of Marin
159	PI	Fish Habitat Specialist	CCC - Fortuna
16	PI	Tri-County FISH Team	Tri-County FISH Team
271	PL	SBNF Navarro Inventory	Mendocino County RCD
197	PL	Garcia River Forest, Phase 1	PWA
112	PL	Tombs & Wheatfield Fork Gualala	Sotoyome RCD
101	PL	Garcia River Watershed Support	Craig Bell
42	PL	Mendocino Coast Coho Data	Regents of UC

Table A-1 Exempt Project List

<u>Proj #</u>	<u>Proj Type*</u>	<u>Project Title</u>	<u>Grant Recipient</u>
70	PL	Lower Bull Cr. Planning	CA State Parks -North Coast Dist.
104	PL	Devils Elbow Landslide Assessment	CA State Parks - North Coast Dist.
73	PL	Beaver Creek Assessment	USFS - Scott River
232	PL	Shasta Water Assn Dam Removal	Shasta Valley RCD
34	PL	Arch & Plant Surveys	DFG - Sacramento
278	PL	Dutch Bill Market Street Passage	Gold Ridge RCD
209	PL	Arroyo Grande Fisheries Assess	Central Coast Salmon Enhancement
210	PL	Chorro & Stenner, Phase 1	PWA
23	PL	Quiota Creek Design	Santa Barbara County
152	PL	Steelhead Santa Barbara Coast	NOAA Fisheries - Santa Cruz
264	PL	San Juan & Trabuco Cr. Plan	Trout Unlimited, South Coast
62	PL	French Ranch Assessment	ERWIG
118	PL	Salt Creek (Klamath)	Yurok Tribal Fisheries
162	PL	Lower Jacoby Plan	City of Arcata
255	PL	NF Mad Inventory	PCFWWRA
256	PL	Smith River Tribs Inventory	PCFWWRA
82	PL	San Geronimo Assessment	Marin County Open Space District
47	PL	Salmon Creek Roads Assessment	Gold Ridge RCD
238	PL	Standley/Hollow Tree Assessment	Trout Unlimited
102	PL	Durphy Creek Planning	CA State Parks - North Coast Dist.
281	RE	Coho Restoration Program	MBSTP
207	TE	Culvert & Roads Central Coast	SRF
7	TE	Fish Passage Case Studies	Michael Love & Associates
60	TE	2005 Coho Confab	SRF
164	TE	Bioengineering Techniques	SRF

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

Table A-2 Minor Action Item List

<u>Proj #</u>	<u>Proj Type*</u>	<u>Project Title</u>	<u>Grant Recipient</u>
77	HR	Little Mill Creek Riparian	CCC - Fortuna
223/SFE2	HU	2004 Blue Goo Slide Program	Eel River Salmon Restoration
SFE 6	HU	Klien Gully Stabilization Project	Seely Watershed Association
→ 286	HR	Riparian in Mattole Headwaters	Mattole Restoration Council ←
EEL 3	HR	Skaggs Upper 80 Tree Planting Project	Skaggs Ranch
279	HR	Solar Irrigation Project	ERWIG
SFE 7	HS	Tooby Park Gully Rehabilitation Stage 2	Seely Watershed Association
172	HR	Shasta River Jim Rice Riparian	Resource Mgt.
na	HI	2005 Murray Camp Habitat Improvement	CCC
na	HI	Tyrells - Upper Austin Creek	CCC

Table A-3 Major Action Item List

<u>County</u>	<u>Type</u>	<u>Project Title</u>
<u>Del Norte</u>	HU	Bummer Spurs Rehab
	HU	Dominie Creek
	HR	Lower Terwer Riparian
	HI	Mynot Creek Instream Habitat Restoration
	HR	Salt Creek Riparian Habitat Enhancement
	HI	Sultan Creek Instream
	HI	Tryon Slough Anadromous Fish Habitat Recovery Project
	HI	Wilson Creek Instream
	HB	Yonkers Creek Fish Passage-Barrier Removal Project
	<u>Humboldt</u>	HU
HS		Ambrozini Hay Field Bank Stabilization
HU		Bear Creek County Road
HB		Beith Creek Culvert Barrier Modification
HU		Brightman/Diamond D
HB		Chadd Creek 101 Culvert Passage Project
HS		China Creek Bank Stabilization and Bridge Replacement
HU		Dean Creek Headwaters Erosion Control Project
HS		DelBiaggio /Reas Creek Restoration
HS		Diamond R Mill Field
HS		East Branch SF Eel Bank Stabilization Project Phase II
HI		Elk Creek Improvement
HU		Fort Seward Ranch Watershed Improvement Project Additional Sites
HU		JKR Ranch Upslope Sediment Reduction Project
HU		Larabee Creek Subdivision Upgrade
HR		Lower Eel HR 05 Howe
HR		Lower Eel HR 05 Price
HU		Lower Eel HU 05
HI		Maple Creek Cover
HU		Middle VDR Phase 2
HU		Mid-Mattole Coho
HI		Mill Creek Urban Stream Restoration
HI		North Fork Ah Pah Creek Instream Habitat Enhancement Project
HS		Nyberg/Noble Van Duzen River Erosion Control Project
HS		Ozanian Creek Restoration
HS		Paine Riparian Project
HU		Panther Gap-Mattole Restoration Council/SWRCB Project
HU		Quail Hollow Bio-engineering
HU		Redwood Cr - 1300 Roads North
HU		Redwood Creek Road DVA PCFWWRA/319
HU		Redwood Creek Road DVB PCFWWRA/319
HU		Redwood Creek Road O-3 PCFWWRA/319
HI		Rex's Wing Dam Phase III
HB		Rocky Gulch Culvert Replacement
HS		Salmon Cr. Stream Bank Stab
HU		Salmon Creek Upslope
HU		Sawmill Creek Road Upgrade Phase II
HB		SF Janes Creek Phase II
HU		Skaggs Upper 80 Culvert Upgrade Project
HB		South Fork Bear Creek Culvert Upgrade I
HB	South Fork Bear Creek Culvert Upgrade II	
HI	Strongs Creek Salmonid Habitat Restoration Phase 1	
HS	Teague II Van Duzen River Bank Stabilization	
HU	Upper Mattole Coho	
HI	Upper Mattole Large Wood 2005	
HU	Upper Mattole River Watershed Rehabilitation Project	
HS	VDR Mora	
HB	Warren Creek Culvert	
HS	Van Duzen River/Weare Bank Stabilization Project	
HU	Wilson Creek Crossing	
HU	YES Group Water Board Road Upgrade Project	

← "warren creek"  
 ← "upper Mattole Coho Recovery"

Table A-3 Major Action Item List

<u>County</u>	<u>Type</u>	<u>Project Title</u>
<u>Los Angeles</u>	HB	Solstice Creek/Corral Canyon
<u>Marin</u>	HU	Kent Canyon & Deer Park Roads Sediment Control
<u>Mendocino</u>	HU	Bradford Ranch Upslope Sediment Reduction Project Additional Sites
	HB	Camp Creek Fish Passage
	HU	Hansen Ranch Subdivision
	HU	Hollow Tree (Garcia River)
	HU	Hollow Tree Creek Watershed Restoration Project –Walters Creek Additional Sites
	HU	Hollow Tree Phase 3
	HU	Irmulco Road/Upper NF Noyo
	HI	South Fork Ten Mile River LWD Project
	HI	Usal Creek Channel Restoration
	HI	Walker Creek Restoration
<u>Napa</u>	HS	Dry Creek Bank, Project #1
	HR	Rutherford Society Arundo
<u>San Luis Obispo</u>	HR	Walters Creek Riparian, Phase II
<u>San Mateo</u>	HU	Bear Gulch Watershed Plan
<u>Santa Barbara</u>	HB	Arroyo Hondo Culvert Project
	HU	Gaviota State Park Roads Repair
	HB	Gobernador Creek Rremoval and Modification of Barriers #3 and #4
	HS	Santa Ynez Bank & Riparian
<u>Santa Cruz</u>	HB	Browns Valley Road PM 3.3
<u>Siskiyou</u>	HS	East Fork Scott River Bank Stabilization & Riparian
	SC	Farmers Ditch Diversion Improve
	HS	Hanna Brothers Bank Stabilization
	SC	Horse Creek Fish Passage
	HR	Marion Ranch Riparian Fence
	HS	Moffett Creek/Kraus Bank Stabilization and Riparian Project
	HR	Nelson Livestock Fence
	HR	Root Ranch Riparian Fence
	HS	Scott River Tailings Stabilization
	HB	Shackleford Creek Diversion
	HR	Shasta River Joe Rice Fencing
	SC	Stapleton Fish Screen Project
<u>Sonoma</u>	HS	Adobe Creek Restoration Project
	HI	Calabazas Creek Pool Enhancement Modifications
	HR	Dutch Bill Coho Habitat Improvement
	HS	Green Valley Enhancement II
	HB	Green Valley-Grub Creeks Retrofit
	HI	Middle Wine Creek Habitat Improvement- Schlumberge
	HS	Osmosis Bank Stabilization
	HI	Pena Creek Instream Restoration at Tevendale 2004
	HI	Redwood Cr. - Beringer 2004 Adaptive Watershed Project
	HI	Redwood Cr. - Beringer Adaptive Watershed Project
	HS	Salmon Creek Mackie II
	HS	Salmon Creek School Bank Stabilization
	HS	Sonoma Creek Stream Bank Stabilization & Pool Enhancement
	HS	Stuhmuller Bioengineering
	HU	Upper Mark West Creek Sediment Reduction Project
	HU	Willow Creek Phase 2
<u>Trinity</u>	WC	West Tule Water Conservation Project
<u>Ventura</u>	HS	Lion Creek Bank Stabilization Project

Exhibit A  
Rocky Gulch Barrier Culvert Replacement Project  
Statement of Work

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

1. Provide unimpeded access for anadromous salmonids to Rocky Gulch by removing a fish barrier culvert and replacing it with a bridge. The goal of this project is to re-establish fish passage for coho salmon, steelhead and coastal cutthroat trout to Rocky Gulch, a tributary to Humboldt Bay in Humboldt County. The objective is to provide access to  $\frac{3}{4}$  of a mile of stream, thus increasing spawning habitat for adult salmonids and rearing habitat for juvenile salmonids.
2. The Contractor will conduct work on Rocky Gulch on a private road crossing the stream approximately 0.3 miles upstream from the confluence with Old Arcata Road. The project is located in Township 5 North, Range 1 East, Section 16 of the Arcata South 7.5 Minute U.S.G.S. Quadrangle, 45.821 N, 124.076 W, as depicted in Exhibit C, Project Location Map, which is attached and made part of this agreement by this reference.
3. The Contractor will improve fish passage by providing access to instream habitat for salmonids by completing the following work:
  - Design engineered plans for the bridge installation to be submitted to the DFG Contract Manager prior to project implementation. The plans will include details of construction, scaled drawings of the bridge as well as specific detail on grade control structures, modification/ dismantling of a failed Humboldt crossing, stream bank armoring, erosion control, traffic management, water diversion and fish relocation if necessary.
  - Implement plans for fish removal, water diversion, erosion control and traffic control.
  - Remove existing culvert and all associated fill.
  - Excavate channel to original width, depth and slope to expose natural channel morphology and armor. Side slopes will be treated to match original contours above and below the road. Modify and or dismantle the upstream Humboldt crossing. Install instream grade control structures to maintain the integrity of the stream channel, the Contractor will use large quarry rock boulders secured to each other.
  - Install a bridge with a minimum dimension of 16 feet wide and 45 feet long. The bridge will have sufficiently designed guard rails to protect vehicle and pedestrian traffic.
  - Treat disturbed and /or erodible stream banks at the project site with boulders and rock riprap. Any additional disturbed soils will be seeded, mulched and planted with native plants.

4. The Contractor will not proceed with on the ground implementation until all necessary permits and consultations are secured.
5. The Contractor shall notify the DFG Contract 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 Contractor 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 Contractor 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 Contractor will provide fish relocation data to the DFG Contract 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 bridge 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 California 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*. Culvert replacement or modification designs shall be visually reviewed and authorized by NOAA Fisheries (or CDFG) 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 Contractor will prepare and provide an agreement from the landowner identifying and clarifying the responsibility of the landowner to maintain the new crossing through out its life span, and inspect the crossing regularly for unimpeded fish passage. An example of the Landowner Agreement will to be provided by the Contract Manager.
11. The Contractor will perform baseline habitat monitoring and photographic documentation prior to, during and after instream structure implementation. The Contractor will follow current DFG project monitoring protocol which will be provided and reviewed by the Contract Manager. The monitoring information will be provided to the Contract Manager by December 31 of each year through out the duration of the Contract.
12. Upon completion of the project, the Contractor shall submit two hard copies of a final written report and one electronic, *Microsoft Word* compatible, copy on 3.5 inch floppy disk(s) or CD. If the project is not completed in the current year, the Contractor will submit a summary of the completed portion no later than December 31 and again each year until completed. The report shall include, but not necessarily be limited to the following information:
  - Contract 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 Contract 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.

Riparian Habitat Projects (HR):

- Number of miles treated (e.g., fenced)
- Number of acres treated (e.g., planted)
- Number of acres and type of invasive species controlled
- Species and size of trees planted
- Number of trees/density of plantings
- Number of feet of stream bank stabilized and treatments used.

Water Quality Projects:

- Water quality limitations addressed by the project (e.g. 303(d), TMDL)

13. The Contractor 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 Rocky Gulch Barrier Culvert Replacement project.

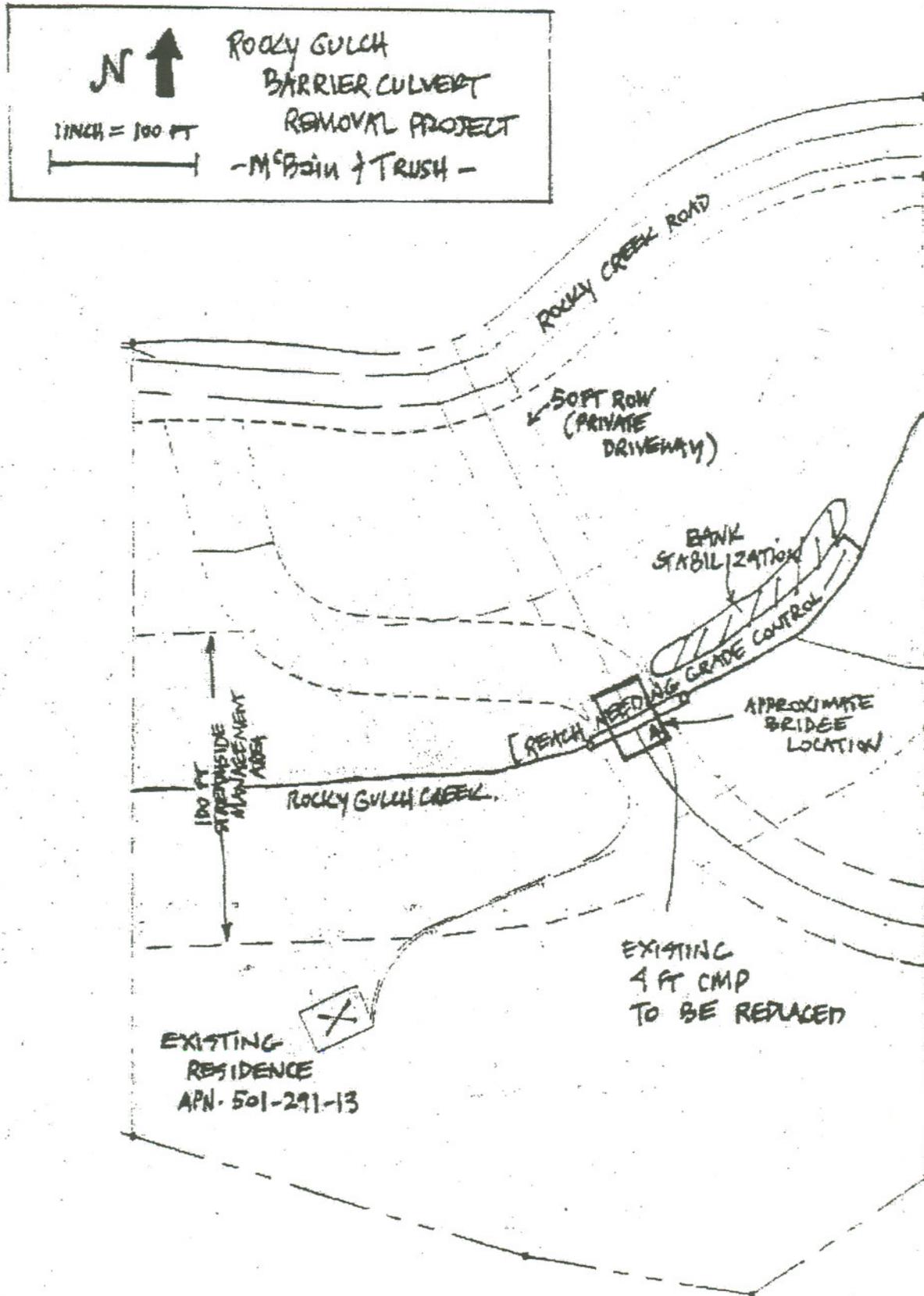
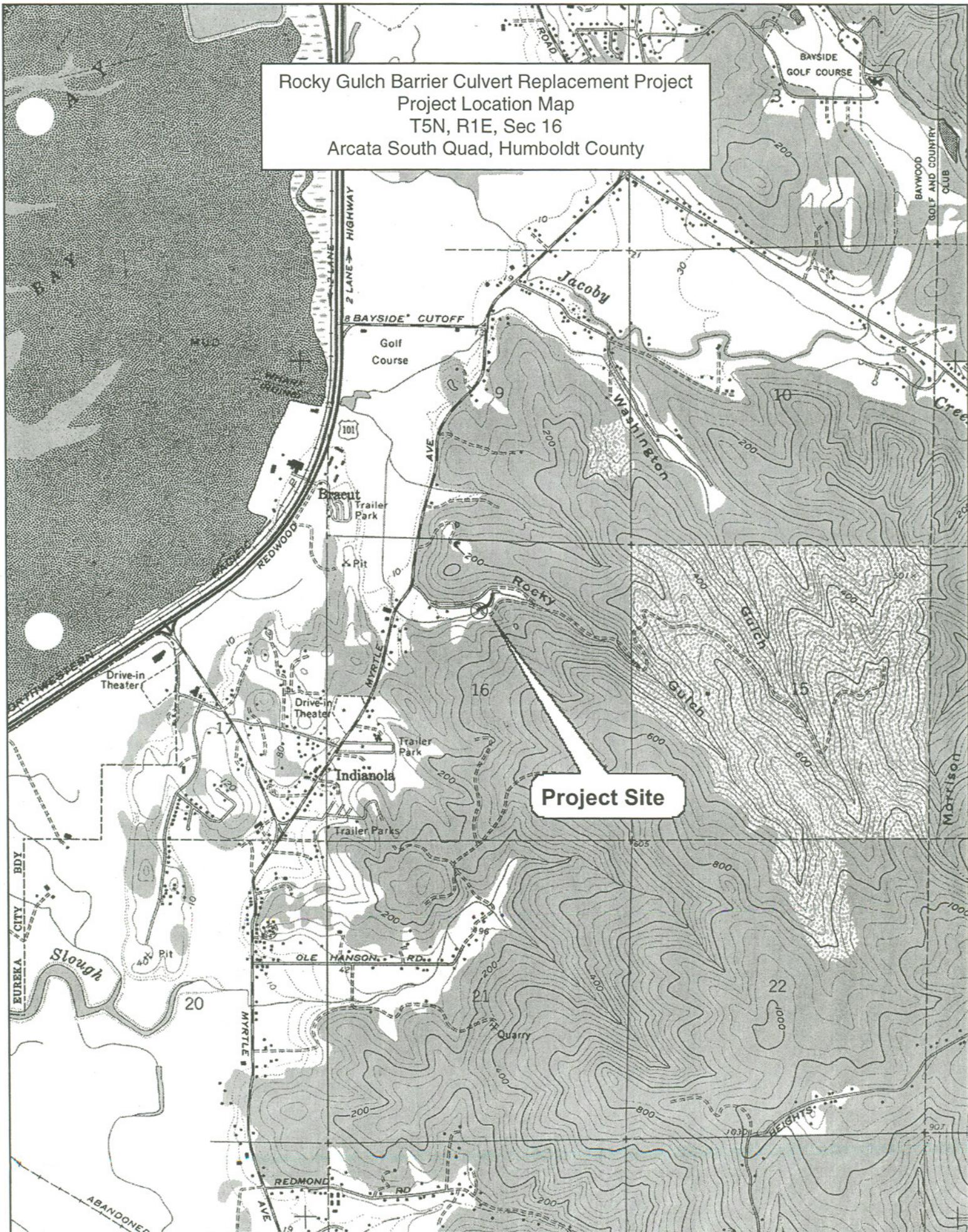


Figure 7. Planview diagram of the Barrier Culvert location

Rocky Gulch Barrier Culvert Replacement Project  
Project Location Map  
T5N, R1E, Sec 16  
Arcata South Quad, Humboldt County



California Department of Fish and Game  
Natural Diversity Database

Selected Elements by Common Name

Possible species within the Arcata South and surrounding quads for:  
Rocky Gulch Barrier Culvert Replacement Project  
T-1, R1E, Sec 16, Humboldt County

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS/R-E-D
1 California clapper rail <i>Rallus longirostris obsoletus</i>	ABNME05016	Endangered	Endangered	G5T1	S1	
2 Coho salmon - southern Oregon / northern California esu <i>Oncorhynchus kisutch</i>	AFCHA02032	Threatened	Threatened	G4	S2?	
3 Cooper's hawk <i>Accipiter cooperii</i>	ABNKC12040			G5	S3	SC
4 Del Norte salamander <i>Plethodon elongatus</i>	AAAAD12050			G3	S3	SC
5 Howell's montia <i>Montia howellii</i>	PDPOR05070			G3G4	S1.2	2/3-2-1
6 Humboldt Bay owl's-clover <i>Castilleja ambigua ssp. humboldtensis</i>	PDSCR0D402			G4T2	S2.2	1B/2-2-3
7 Humboldt Bay wallflower <i>Erysimum menziesii ssp. eurekaense</i>	PDBRA160E2	Endangered	Endangered	G3?T1	S1.1	1B/3-3-3
8 Humboldt marten <i>Martes americana humboldtensis</i>	AMAJF01012			G5T2T3	S2S3	SC
9 Indian-pipe <i>Monotropa uniflora</i>	PDMON03030			G5	S2S3	2/2-2-1
10 Kneeland Prairie pennycress <i>Thlaspi californicum</i>	PDBRA2P041	Endangered		G1	S1.1	1B/3-3-3
11 Lyngbye's sedge <i>Carex lyngbyei</i>	PMCYP037Y0			G5	S2.2	2/2-2-1
12 Norris's beard-moss <i>Didymodon norrisii</i>	NBMUS2C0H0			G2G3	S2.2	2/2-2-2
13 Northern Coastal Salt Marsh	CTT52110CA			G3	S3.2	
14 Northern Foredune Grassland	CTT21211CA			G1	S1.1	
15 Oregon coast Indian paintbrush <i>Castilleja affinis ssp. litoralis</i>	PDSCR0D1V0			G4G5T4	S2.2	2/2-2-1
16 Pacific fisher <i>Martes pennanti pacifica</i>	AMAJF01021	Candidate		G5T3T4Q	S2S3	SC
17 Pacific gilia <i>Gilia capitata ssp. pacifica</i>	PDPLM040B6			G5T3T4	S2.2?	1B/2-2-2
18 Point Reyes bird's-beak <i>Cordylanthus maritimus ssp. palustris</i>	PDSCR0J0C3			G4?T2	S2.2	1B/2-2-2
19 Siskiyou checkerbloom <i>Sidalcea malviflora ssp. patula</i>	PDMAL110F9			G5T1	S1.1	1B/3-2-2
20 Upland Douglas Fir Forest	CTT82420CA			G4	S3.1	
21 bald eagle <i>Haliaeetus leucocephalus</i>	ABNKC10010	Threatened	Endangered	G4	S2	
22 beach layia <i>Layia camosa</i>	PDAST5N010	Endangered	Endangered	G1	S1.1	1B/3-3-3
bensoniella <i>Bensoniella oregona</i>	PDSAX02010		Rare	G3	S2.2	1B/3-3-2

California Department of Fish and Game

Natural Diversity Database

Selected Elements by Common Name

Possible species within the Arcata South and surrounding quads for:  
Rocky Gulch Barrier Culvert Replacement Project  
R1E, Sec 16, Humboldt County

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS/R-E-D
24 black-crowned night heron <i>Nycticorax nycticorax</i>	ABNGA11010			G5	S3	
25 coast checkerbloom <i>Sidalcea oregana ssp. eximia</i>	PDMAL110K9			G5T1	S1.2	1B/3-2-3
26 coast cutthroat trout <i>Oncorhynchus clarki clarki</i>	AFCHA0208A			G4T4	S3	SC
27 coast fawn lily <i>Erythronium revolutum</i>	PMLIL0U0F0			G4	S2.2	2/2-2-1
28 coastal marsh milk-vetch <i>Astragalus pycnostachyus var. pycnostachyus</i>	PDFAB0F7B2			G2T2	S2.2	1B/3-2-3
29 dark-eyed gilia <i>Gilia millefoliata</i>	PDPLM04130			G2	S2.2	1B/2-2-2
30 double-crested cormorant <i>Phalacrocorax auritus</i>	ABNFD01020			G5	S3	SC
31 flaccid sedge <i>Carex leptalea</i>	PMCYP037E0			G5	S2?	2/3-2-1
32 foothill yellow-legged frog <i>Rana boylei</i>	AAABH01050			G3	S2S3	SC
33 great blue heron <i>Ardea herodias</i>	ABNGA04010			G5	S4	
34 great egret <i>Ardea alba</i>	ABNGA05010			G5	S4	
35 leafy-stemmed mitrewort <i>Mitella caulescens</i>	PDSAX0N020			G5	S2.3	2/2-1-1
36 long-beard lichen <i>Usnea longissima</i>	NLLEC5P420			G4	S3.1	
37 long-eared myotis <i>Myotis evotis</i>	AMACC01070			G5	S4?	
38 maple-leaved checkerbloom <i>Sidalcea malachroides</i>	PDMAL110E0			G2	S3.2	1B/2-2-2
39 marsh pea <i>Lathyrus palustris</i>	PDFAB250P0			G5	S2S3	2/2-2-1
40 marsh violet <i>Viola palustris</i>	PDVIO041G0			G5	S1S2	2/3-2-1
41 meadow sedge <i>Carex praticola</i>	PMCYP03B20			G5	S2S3	2/2-2-1
42 minute pocket-moss <i>Fissidens pauperculus</i>	NBMUS2W0U0			G3?	S1.2	1B/2-2-3
43 northern clustered sedge <i>Carex arcta</i>	PMCYP030X0			G5	S1S2	2/2-2-1
44 northern red-legged frog <i>Rana aurora aurora</i>	AAABH01021			G4T4	S2?	SC
45 northwestern pond turtle <i>Emys (=Clemmys) marmorata marmorata</i>	ARAAD02031			G3G4T3	S3	SC

California Department of Fish and Game  
 Natural Diversity Database

Selected Elements by Common Name

Possible species within the Arcata South and surrounding quads for:  
 Rocky Gulch Barrier Culvert Replacement Project  
 T1N, R1E, Sec 16, Humboldt County

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS/R-E-D
46 osprey <i>Pandion haliaetus</i>	ABNKC01010			G5	S3	SC
47 pink sand-verbena <i>Abronia umbellata ssp. breviflora</i>	PDNYC010N2			G4G5T2	S2.1	1B/2-3-2
48 red tree vole <i>Arborimus pomo</i>	AMAFF10030			G3	S3	SC
49 robust false lupine <i>Thermopsis robusta</i>	PDFAB3Z0D0			G2Q	S2.2	1B/2-2-3
50 running-pine <i>Lycopodium clavatum</i>	PPLYC01080			G5	S2S3	2/2-1-1
51 sand pea <i>Lathyrus japonicus</i>	PDFAB250C0			G5	S1.1	2/3-3-1
52 sharp-shinned hawk <i>Accipiter striatus</i>	ABNKC12020			G5	S3	SC
53 snowy egret <i>Egretta thula</i>	ABNGA06030			G5	S4	
54 southern torrent salamander <i>Rhyacotriton variegatus</i>	AAAAJ01020			G3G4	S2S3	SC
55 summer-run steelhead trout <i>Oncorhynchus mykiss irideus</i>	AFCHA02092			G5T2	S2	SC
56 tidewater goby <i>Eucyclogobius newberryi</i>	AFCQN04010	Endangered		G3	S2S3	SC
57 western lily <i>Lilium occidentale</i>	PMLL1A0G0	Endangered	Endangered	G1	S1.2	1B/3-3-2
58 western sand-spurrey <i>Spergularia canadensis var. occidentalis</i>	PDCAR0W032			G5T4?	S1.1	2/3-3-1
59 western snowy plover <i>Charadrius alexandrinus nivosus</i>	ABNNB03031	Threatened		G4T3	S2	SC
60 western tailed frog <i>Ascaphus truei</i>	AAABA01010			G4	S2S3	SC
61 white-footed vole <i>Arborimus albipes</i>	AMAFF10021			G3G4	S2S3	SC

Exhibit A  
Warren Creek Culvert Replacement  
Statement of Work

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

1. Provide unimpeded access for anadromous salmonid fish to Warren Creek by removing a fish barrier culvert and replacing it with a bottomless arch culvert. The goal of this project is to re-establish fish passage for coho salmon, steelhead and coastal cutthroat trout to Warren Creek tributary to the Mad River in Humboldt County. The objective is to provide access to 2.5 miles of stream, thus increasing spawning habitat for adult salmonids and rearing habitat for juvenile salmonids.
2. The Grantee will conduct work on Warren Creek at the Warren Creek Road crossing, approximately a ¼ mile upstream from the confluence with the Mad River. The project is located in Township 6 North, Range 1 East, Section 15 of the Arcata North 7.5 Minute U.S.G.S. Quadrangle, 40.8967 N, 124.0417 W, as depicted in Exhibit C, Project Location Map, which is attached and made part of this agreement by this reference.
3. The Grantee will improve fish passage by providing access to instream habitat for salmonids by completing the following work:
  - Design engineered plans for the culvert installation to be submitted to the DFG Grant Manager prior to project implementation. The plans will include details of construction, scaled drawings of the culvert as well as specific detail on grade control structures if necessary, erosion control, traffic management, water diversion and fish relocation if necessary.
  - Implement plans for fish removal, water diversion, erosion control and traffic control.
  - Remove existing culvert and all associated fill.
  - Excavate channel to original width, depth and slope to expose natural channel morphology and armor. Side slopes will be treated to match original contours above and below the road.
  - Install an 18-foot wide x 9-foot high x 100-foot long bottomless, multi-plate arch or equivalent type culvert. The arch culvert will be attached to concrete footings. The culvert inlet and outlet will be armored as necessary.
  - Treat disturbed and /or erodible stream banks at the project site with boulders and rock riprap. Any additional disturbed soils will be seeded, mulched and planted with native plants.
  - If instream grade control structures are required to maintain the integrity of the stream channel, the Grantee will use large quarry rock boulders secured to each other.
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 DFG 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 DFG 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 culvert 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 California 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*. Culvert replacement or modification designs shall be visually reviewed and authorized by NOAA Fisheries (or CDFG) 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. Upon completion of the project, the Grantee shall submit two hard copies of a final written report and one electronic, *Microsoft Word* compatible, copy on 3.5 inch floppy disk(s) or CD. If the project is not completed in the current year, the Grantee will submit a summary of the completed portion no later than December 31 and again each year until completed. 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.

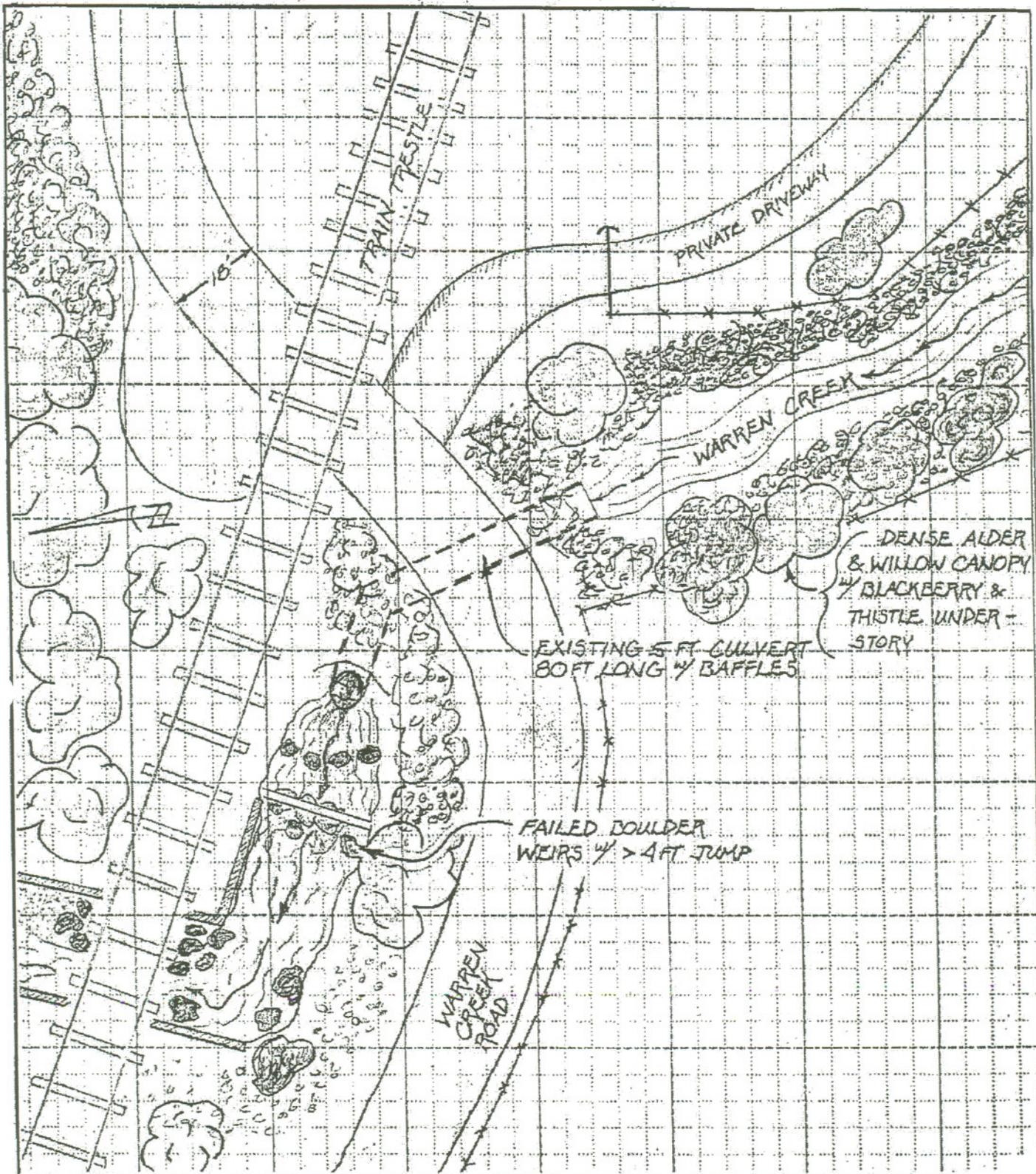
Riparian Habitat Projects (HR):

- Number of miles treated (e.g., fenced)
- Number of acres treated (e.g., planted)
- Number of acres and type of invasive species controlled
- Species and size of trees planted
- Number of trees/density of plantings
- Number of feet of stream bank stabilized and treatments used.

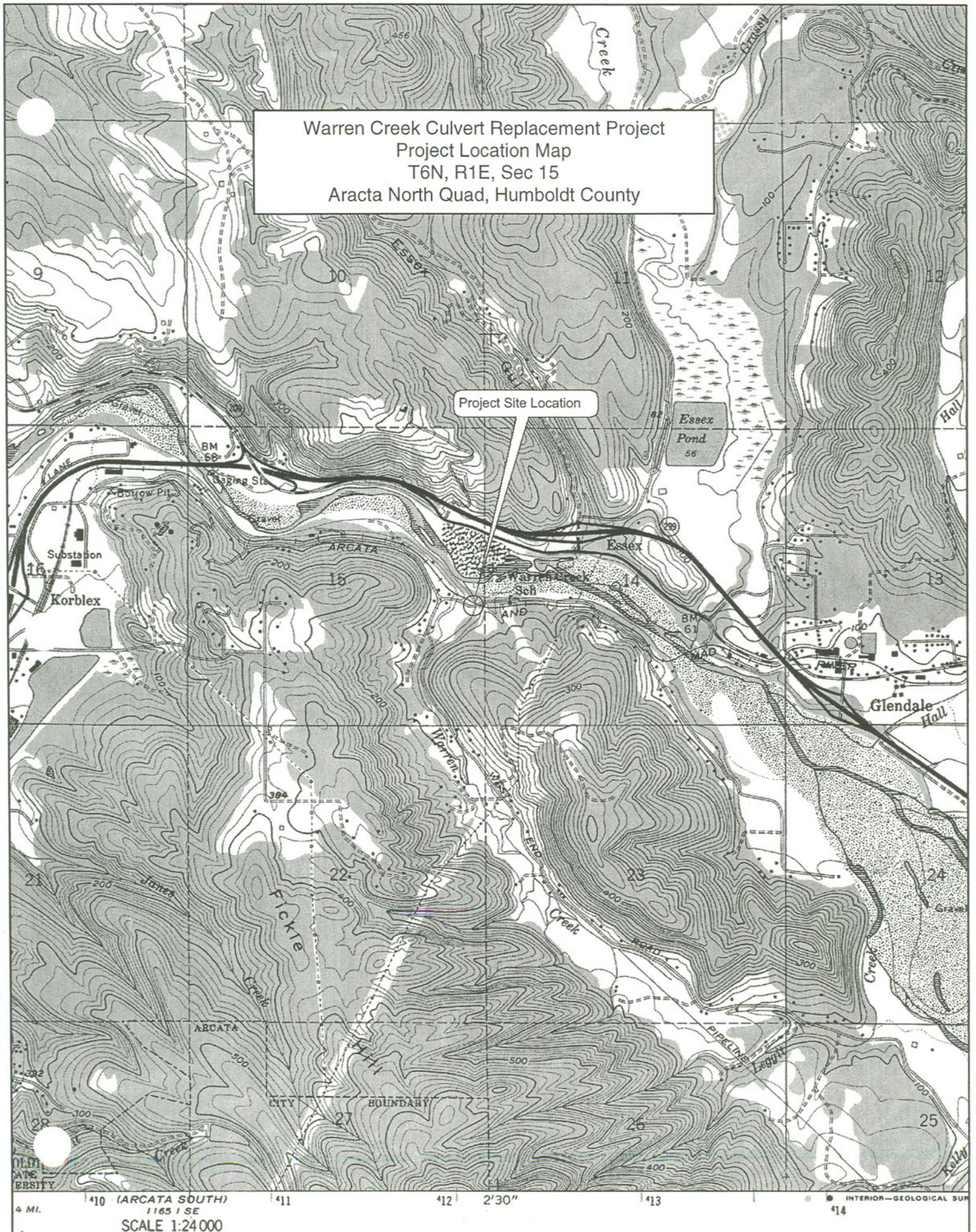
Water Quality Projects:

- Water quality limitations addressed by the project (e.g. 303(d), TMDL)

12. 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 Warren Creek Culvert Replacement project.



**SITE PLAN**  
**WARREN CREEK CULVERT, WARREN CREEK ROAD (5L740)**



California Department of Fish and Game  
Natural Diversity Database

## Selected Elements by Common Name

Possible species within the Arcata North and surrounding quads for:  
Warren Creek Culvert Replacement Project  
T6N. R1E, Sec 15; Humboldt County

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS/R-E-D
1 Coho salmon - southern Oregon / northern California esu <i>Oncorhynchus kisutch</i>	AFCHA02032	Threatened	Threatened	G4	S2?	
2 Cooper's hawk <i>Accipiter cooperii</i>	ABNKC12040			G5	S3	SC
3 Del Norte salamander <i>Plethodon elongatus</i>	AAAAD12050			G3	S3	SC
4 Howell's montia <i>Montia howellii</i>	PDPOR05070			G3G4	S1.2	2/3-2-1
5 Humboldt Bay owl's-clover <i>Castilleja ambigua ssp. humboldtiensis</i>	PDSCR0D402			G4T2	S2.2	1B/2-2-3
6 Indian-pipe <i>Monotropa uniflora</i>	PDMON03030			G5	S2S3	2/2-2-1
7 Lyngbye's sedge <i>Carex lyngbyei</i>	PMCYP037Y0			G5	S2.2	2/2-2-1
8 Northern Coastal Salt Marsh	CTT52110CA			G3	S3.2	
9 Oregon coast Indian paintbrush <i>Castilleja affinis ssp. litoralis</i>	PDSCR0D1V0			G4G5T4	S2.2	2/2-2-1
10 Pacific fisher <i>Martes pennanti pacifica</i>	AMAJF01021	Candidate		G5T3T4Q	S2S3	SC
Pacific gilia <i>Gilia capitata ssp. pacifica</i>	PDPLM040B6			G5T3T4	S2.2?	1B/2-2-2
12 Point Reyes bird's-beak <i>Cordylanthus maritimus ssp. palustris</i>	PDSCR0J0C3			G4?T2	S2.2	1B/2-2-2
13 Siskiyou checkerbloom <i>Sidalcea malviflora ssp. patula</i>	PDMAL110F9			G5T1	S1.1	1B/3-2-2
14 Wolf's evening-primrose <i>Oenothera wolffii</i>	PDONA0C1K0			G1	S1.1	1B/3-3-2
15 bald eagle <i>Haliaeetus leucocephalus</i>	ABNKC10010	Threatened	Endangered	G4	S2	
16 bank swallow <i>Riparia riparia</i>	ABPAU08010		Threatened	G5	S2S3	
17 beach layia <i>Layia carnosa</i>	PDA5T5N010	Endangered	Endangered	G1	S1.1	1B/3-3-3
18 bensoniella <i>Bensoniella oregona</i>	PDSAX02010		Rare	G3	S2.2	1B/3-3-2
19 black-crowned night heron <i>Nycticorax nycticorax</i>	ABNGA11010			G5	S3	
20 coast checkerbloom <i>Sidalcea oregana ssp. eximia</i>	PDMAL110K9			G5T1	S1.2	1B/3-2-3
21 coast cutthroat trout <i>Oncorhynchus clarki clarki</i>	AFCHA0208A			G4T4	S3	SC
dark-eyed gilia <i>Gilia millefoliata</i>	PDPLM04130			G2	S2.2	1B/2-2-2

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Selected Elements by Common Name

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T6N, R1E, Sec 15; Humboldt County

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS/R-E-D
23 double-crested cormorant <i>Phalacrocorax auritus</i>	ABNFD01020			G5	S3	SC
24 flaccid sedge <i>Carex leptalea</i>	PMCYP037E0			G5	S2?	2/3-2-1
25 foothill yellow-legged frog <i>Rana boylei</i>	AAABH01050			G3	S2S3	SC
26 fork-tailed storm-petrel <i>Oceanodroma furcata</i>	ABNDC04010			G5	S1	SC
27 great blue heron <i>Ardea herodias</i>	ABNGA04010			G5	S4	
28 leafy-stemmed mitrewort <i>Mitella caulescens</i>	PDSAX0N020			G5	S2.3	2/2-1-1
29 long-beard lichen <i>Usnea longissima</i>	NLLEC5P420			G4	S3.1	
30 long-eared myotis <i>Myotis evotis</i>	AMACC01070			G5	S4?	
31 maple-leaved checkerbloom <i>Sidalcea malachroides</i>	PDMAL110E0			G2	S3.2	1B/2-2-2
32 minute pocket-moss <i>Fissidens pauperculus</i>	NBMUS2W0U0			G3?	S1.2	1B/2-2-3
northern clustered sedge <i>Carex arcta</i>	PMCYP030X0			G5	S1S2	2/2-2-1
34 northern red-legged frog <i>Rana aurora aurora</i>	AAABH01021			G4T4	S2?	SC
35 northwestern pond turtle <i>Emys (=Clemmys) marmorata marmorata</i>	ARAAD02031			G3G4T3	S3	SC
36 osprey <i>Pandion haliaetus</i>	ABNKC01010			G5	S3	SC
37 pink sand-verbena <i>Abronia umbellata ssp. breviflora</i>	PDNYC010N2			G4G5T2	S2.1	1B/2-3-2
38 red tree vole <i>Arborimus pomo</i>	AMAFF10030			G3	S3	SC
39 rhinoceros auklet <i>Cerorhinca monocerata</i>	ABNNN11010			G5	S3	SC
40 robust false lupine <i>Thermopsis robusta</i>	PDFAB3Z0D0			G2Q	S2.2	1B/2-2-3
41 running-pine <i>Lycopodium clavatum</i>	PPLYC01080			G5	S2S3	2/2-1-1
42 southern torrent salamander <i>Rhyacotriton variegatus</i>	AAAAJ01020			G3G4	S2S3	SC
43 summer-run steelhead trout <i>Oncorhynchus mykiss irideus</i>	AFCHA02092			G5T2	S2	SC
*4 tidewater goby <i>Eucyclogobius newberryi</i>	AFCQN04010	Endangered		G3	S2S3	SC

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Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS/R-E-D
45 tufted puffin <i>Fratercula cirrhata</i>	ABNNN12010			G5	S2	SC
46 western lily <i>Lilium occidentale</i>	PMLIL1A0G0	Endangered	Endangered	G1	S1.2	1B/3-3-2
47 western snowy plover <i>Charadrius alexandrinus nivosus</i>	ABNNB03031	Threatened		G4T3	S2	SC
48 western tailed frog <i>Ascaphus truei</i>	AAABA01010			G4	S2S3	SC