

COASTAL CONSERVANCY

Staff Recommendation
October 3, 2013

**NORTHCOAST FISH PASSAGE IMPROVEMENT: DESIGN AND
IMPLEMENTATION**

Project No. 13-031-01
Project Manager: Michael Bowen

RECOMMENDED ACTION: Authorization to disburse up to \$230,000 to California Trout, Inc. in order to design one and construct three fish passage and habitat quality improvement projects in Humboldt and Mendocino counties.

LOCATION: Mad and Eel river watersheds in Humboldt County and the Eel River in Mendocino County.

PROGRAM CATEGORY: Resource Enhancement

EXHIBITS

Exhibit 1: [Project Locations and Graphics](#)

Exhibit 2: [Project Letters](#)

RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31251 through 31270 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes the disbursement of up to two hundred thirty thousand dollars (\$230,000) to California Trout, Inc. to design one and implement three fish passage and habitat improvement projects in Humboldt and Mendocino County, subject to the following conditions:

1. Prior to the disbursement of funds for each project, California Trout, Inc. shall submit for review and approval by the Executive Officer of the Conservancy:
 - a. A work program including a schedule and budget for the project.
 - b. All contractors to be retained for the project. Documentation that access to the project site has been obtained for carrying out the project and, for any implementation project, for future monitoring and maintenance of the project.
 - d. For any implementation project, documentation that all necessary permits and approvals have been obtained.

- e. Documentation that all funding required for the project has been secured.
2. Prior to commencement of work on the Quarry Creek implementation project, California Trout, Inc. shall enter into and record an agreement with the owner of the implementation project site pursuant to Public Resources Code Section 31116(c) sufficient to protect the public interest and provide for maintenance of the implementation project.”

Staff further recommends that the Conservancy adopt the following findings:

“Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed project is consistent with the current Project Selection Criteria and Guidelines.
2. The proposed authorization is consistent with the purposes and objectives of Chapter 6 of Division 21 of the Public Resources Code, regarding resource enhancement.
3. California Trout, Inc. is a nonprofit organization existing under section 501(c)(3) of the Internal Revenue Service, and whose purposes are consistent with Division 21 of the Public Resources Code.”

PROJECT SUMMARY:

Staff recommends disbursement of up to \$230,000 to California Trout, Inc. (CalTrout) to construct three fish passage and habitat improvement projects in the Mad and Eel river watersheds in Humboldt County and to design one fish passage improvement project in the Eel River watershed in Mendocino County (Exhibit 1). The projects are all located on high priority streams for fishery enhancement, and construction will lead to direct increases in coastal salmon populations.

The proposed work has four components:

At Quarry Creek, tributary to the Mad River, in Humboldt County, CalTrout will remove a complete barrier to fish passage that is located 164 feet upstream of Quarry Creek’s confluence with the Mad River. The barrier is a flattened, 8-foot diameter metal culvert installed in the 1960s. Concrete rubble and rip-rap is aggraded downstream of the culvert, and the creek drops 2-feet into a concrete rubble area which then continues into a 5-foot drop. The barrier site will be replaced with a bridge, and the channel will be restored to provide continuous passage upstream, free of the existing drops. Additionally, the grantee will restore stream habitat above the barrier through installation of large woody debris, invasive plant removal, construction of backwater habitat areas for winter rearing salmonids, extensive riparian revegetation and installation of cattle exclusion fencing. Following completion, Quarry Creek will offer more than a mile of unobstructed high quality spawning and rearing habitat for coastal salmon populations.

At Bridge Creek, tributary to the Eel River in Humboldt County, CalTrout will remove a complete barrier to fish passage that is located 150 feet upstream of Bridge Creek’s confluence with the mainstem Eel River. The barrier is a railroad crossing that consists of a concrete culvert constructed outside of the historic stream channel through 165 feet of sandstone bedrock. A large vertical metal culvert drop inlet was added to the culvert some years ago to assist with

maintenance of the structure. Further ensuring its status as a complete barrier, approximately 23-feet of sediment has aggraded on the upstream side of the stream crossing. Should the structure fail in a storm, a likely possibility, at least 29,500 cubic yards of material would be immediately delivered to the Eel River, resulting in a severe and adverse impact to Eel River fishery resources. The project entails excavating the fill, removing the culvert and stabilizing the site, through grading and re-vegetation, but without placement or construction of any physical improvements. No culvert replacement is planned, and any future crossing at the site must meet a variety of contemporary and far more rigorous standards for fish crossing. Remedying the site will be preventative of episodic sediment delivery and will also provide unobstructed access to approximately 1.6 miles of high quality spawning and rearing habitat for coastal salmon populations.

At Redwood Creek, tributary to the South Fork Eel River in Humboldt County, CalTrout will oversee the Eel River Watershed Group's efforts to remediate a barrier to fish passage that resulted from a March 2013 slide. The slide entered the active channel from the right bank of Redwood Creek, completely blocking the channel and creating a lake upstream of the slide. The adjacent landowner, fearing for his property and the fishery, contacted the Department of Fish and Wildlife to request assistance. DFW sent a crew to observe presence/absence of salmonid species above and below the slide. Chinook, Coho and steelhead were all observed above and below the slide, signaling the importance of maintaining access to the stream above the barrier. DFW made the following recommendation, now proposed for implementation.

The proponent will "scratch in" a secondary channel, without constructing or making any physical improvements, which will be located approximately twenty feet left of the existing blocked active channel, but within the bankfull channel. The downstream end of the channel will be hydraulically connected to the existing channel 50-feet downstream of the slide. The new channel will be 200' in length. The upper part of the new side channel will be 'at grade' with the existing channel but will not be hydraulically connected. A berm approximately three feet in width will be left in place to hold the existing channel and fish habitat together until the winter rains begin. When flows increase, water will breach the berm and enter the newly-constructed channel, thereby bypassing the slide. Fish passage will be restored, and thousands of cubic yards of sediment that would enter the creek this winter will be prevented from doing so. Willow will be planted by the Civilian Conservation Corps on the new side channel and all disturbed soil will be seeded and mulched prior to significant winter rains. Excavated material will be placed on a nearby terrace, well outside of the stream channel area.

At Woodman Creek, tributary to the mainstem Eel River, in Mendocino County, CalTrout will develop a design and permit application materials for removal of a complete barrier to fish passage that is located approximately 500 feet upstream of Woodman Creek's confluence with the mainstem Eel River. The barrier was formed when the North Western Pacific Railroad (NWPR) filled the creek channel with excavation debris and re-routed the original channel over a bedrock drop of at least twelve feet. The barrier is considered by the California Department of Fish and Wildlife (CDFW) to be amongst the highest priority barriers in all of northern California. Once the designs are complete, CalTrout intends to request CDFW funding to implement the project, and CDFW has indicated their interest in doing so. A modest amount of support from the Conservancy will expedite this process by roughly two years. Remediating this barrier would provide unobstructed access to approximately 14 miles of high quality spawning and rearing habitat for coastal salmon populations.

CalTrout has pioneered fishery enhancement work in California for 42 years. The organization has managed several Department of Fish and Wildlife Fishery Restoration Grants for comparable work, and currently manages a significant grant from the Coastal Conservancy and from CDFW for Eel River Delta restoration work at the mouth of the Eel River. CalTrout has demonstrated the technical and procedural competence necessary to manage and complete the proposed work.

Site Description: The project sites (Exhibit 1) are as follows:

Quarry Creek

Quarry Creek is a tributary to the Mad River, located 11.4 miles upstream of where the Mad River drains to the Pacific Ocean near McKinleyville in Humboldt County. Quarry Creek is a second order and approximately 2.2-mile long stream. Historically, it entered the river one mile downstream of its present confluence with the Mad River but was diverted for industrial purposes.

The Quarry Creek subwatershed is located in the Mad-Redwood HUC (below Ruth Lake Dam). Elevations range from about 85 feet at the mouth of the creek to 1,000 feet in the headwater areas. Mixed hardwood forest and redwood forest dominate the watershed and the watershed is privately managed for timber production and rural development.

Of Quarry Creek's 2.2-mile length, it contains approximately 6,085 feet (~1.2 miles) of existing low gradient tributary habitat that provides cover from predation, quality food sources and refuge from high flow velocities for salmonids during the winter. This reach is excellent Coho habitat. Upstream of this reach, there is an additional mile of habitat accessible to steelhead. Numerous tributaries to the mainstem are inaccessible, but nevertheless provide large wood, spawning gravel and food delivery downstream to the project area.

The fish passage barrier is located 164 feet (.031 miles) upstream of the mouth of Quarry Creek on private property and all restoration work will occur on this property. Below the barrier, the rip-rapped channel is bounded by willows, alders and blackberries. Upstream of the barrier, the channel flows through thickets of Himalaya blackberry and between cottonwood trees.

Bridge Creek

Bridge Creek is a 2.1 mile long creek flowing directly into the Eel River opposite Holmes Flat, CA, approximately 6.0 miles downstream from the confluence of the South Fork Eel River and mainstem Eel River, and about 1.0 mile downstream from the mouth of Larabee Creek. Correction or removal of the barrier would allow access to approximately 1.6 miles of salmonid habitat. The railroad crossing site is located on a private ranch and the stream channel upstream of the crossing extends onto Humboldt Redwood Company property. The railroad crossing of Bridge Creek is located at the extreme lower end of the watershed, approximately 150ft. upstream from its confluence with the Eel River. It is a deep fill crossing with a concrete culvert. It is impossible to establish where the natural stream channel once flowed into the Eel River prior to construction of the railroad. However, it is clear that the concrete culvert was constructed oblique to the pre-railroad stream channel alignment by about 30-degrees. Rather than being set in the natural stream bed, the culvert was built through a tunnel constructed through the sandstone bedrock for approximately 165 ft. The Bridge Creek culvert is undersized for the stream flow and woody debris that is transported to the inlet during winter storms.

Redwood Creek

Redwood Creek drains a 23.3 square mile watershed containing approximately 11 miles of anadromous stream. It enters the South Fork Eel River near Garberville, CA. The slide is located six miles upstream from Redwood Creek's confluence with the South Fork Eel, so remediation of the slide would restore access to approximately 4.5 miles of habitat available and utilized by spawning salmon as recently as last year. The barrier is located in the Old Briceland Orchard, near Whitethorn, on private property.

Woodman Creek

Woodman Creek drains a 24.5 square mile watershed, tributary to the upper mainstem Eel River. The watershed has been managed primarily for rangeland, timber production, homesteading and recreation for more than 100 years. The area was extensively tractor logged in the 1950's, then was subdivided in the 1960's and has been managed for non-industrial timber harvesting, livestock grazing, recreation and rural residences. Nearly 80% of the watershed is forested. Elevations in the area range from 800 feet at the mouth of Woodman Creek at the confluence with the Eel River to over 4,000 feet on the northern watershed divide.

Woodman Creek is strategically located where the highest densities of Chinook salmon are spawning and rearing in the mainstem Eel River. The Van Arsdale Fish Station has counted returning adult Chinook salmon since 1946, and populations appear to be rebounding in the upper mainstem reaches and its tributaries. Chinook salmon adult returns at Van Arsdale Fish Station have exceeded historical returns in each of the past three years, setting records in three consecutive years (2010-2012). Downstream of Van Arsdale, two important salmon-bearing tributaries – Tomki Creek and Outlet Creek – join the Eel River. Woodman Creek is the next largest tributary downstream of Outlet Creek, located approximately 5 miles downstream of the Middle Fork Eel River confluence. According to the federal National Marine Fisheries Service, a division of the U.S. National Oceanic and Atmospheric Administration (“NOAA Fisheries”), Woodman Creek has the following *Intrinsic Potential Habitat* (in kilometers): Winter Steelhead: 35; Coho: 13; Chinook: 4.2.

CalTrout, a 501 (c) (3) organization, has pioneered fishery enhancement work in California for 42 years. The organization has managed several Department of Fish and Wildlife Fishery Restoration Grants for comparable work, and currently manages two grants from the Coastal Conservancy: the Eel River Estuary restoration design at The Wildlands Conservancy's Eel River Estuary Preserve, and the Elk River Recovery Assessment. CalTrout has demonstrated the technical and procedural competence necessary to manage and complete the proposed work. Additionally, CalTrout has spent the last few years actively building the support of a diverse group of stakeholders, forging consensus and broad commitment to the realization of these important restoration efforts.

Project History: The Coastal Conservancy has invested heavily in both the design and implementation of fish passage improvement projects throughout California, and particularly on the Northcoast. Prior grants to the Five Counties Salmonid Conservation Program alone have resulted in the reopening of more than 100 miles of high quality salmon and steelhead habitat formerly blocked by poorly constructed road-stream crossings. This in turn has resulted in numerous observations of salmon in previously inaccessible areas. The Conservancy has also

played a significant role in establishing barrier removal priorities, thereby ensuring that proposed projects are likely to yield significant biological responses in the form of returning salmon and steelhead. For instance, the Conservancy funded the development of the California Passage Assessment Database, a joint effort of the California Department of Fish and Wildlife and the Coastal Conservancy. The Conservancy co-chairs the Fish Passage Forum, a multi-agency venture dedicated to streamlining the reopening of historic but blocked fish habitat. The Forum recently joined the National Fish Habitat Partnership; a national association of similar groups dedicated to restoring native fish populations, and has demonstrated to the partnership its leadership in pioneering the removal of high priority barriers to fish passage.

The Quarry Creek project represents the Conservancy's fifth barrier removal within the Mad River. The board authorized \$105,000 to fund Humboldt County's removal of barriers on Sullivan Gulch, Lindsay Creek, and North and South Fork Anker Creek in 2001. All project sites have experienced documented returns of salmon and steelhead above the historic barriers.

The Bridge, Redwood and Woodman creek projects comport strongly with the Conservancy's priority to reestablish the Eel River's historically high salmon populations. In addition to the Conservancy's extensive Eel River estuary enhancement activities, such as the Salt River Ecosystem Restoration Project, the Conservancy and the Sonoma County Water Agency co-funded the Center for Ecosystem Management and Restoration (CEMAR) to conduct a literature search of Eel River historic records, and to conduct an evaluation of high priority fishery enhancement opportunities within the Eel River. This effort, completed in 2008, identified key watersheds suitable for enhancement efforts that could measurably improve populations of salmon and steelhead in the watershed. For a variety of reasons, both Bridge and Woodman Creek rose high on the list of restoration opportunities. Subsequently, CalTrout commissioned an assessment of structures owned by North Western Pacific Railroad (NWPR) that may present barriers to fish passage. The Bridge and Woodman Creek crossings ranked first and second as priorities, largely due to the quality of the habitat upstream of the barriers, the proximity of the barriers to the mouth of the creek and the severity of the barriers that completely blocked upstream passage. CalTrout entered into lengthy but ultimately successful negotiations with NWPR and eventually achieved authorization to proceed with the design and construction of the projects. The outcome ensures reentry of salmon to historically blocked habitat in the immediate term, and the prospect for improved designs of the crossings in the longer term.

Redwood Creek might have ranked higher, but little data existed regarding its productivity until post-slide survey crews recorded such high counts of Chinook and coho salmon in the project area. Its productivity alone makes this project a very high priority.

PROJECT FINANCING

Coastal Conservancy	\$230,000
California Department of Fish and Wildlife (Bridge, implementation)	\$488,664
NOAA Fisheries-American Rivers Partnership (Woodman, design)	\$85,000
NOAA Fisheries (Quarry, monitoring)	\$58,700

FishAmerica Foundation (Quarry, design)	\$65,000
SHN Consulting Engineers (Quarry Creek, design)	\$3,350
Kernan Construction (Quarry, implementation)	\$69,865
Humboldt Fish Action Council (Quarry, implementation)	\$6,410
Streamline Planning Consultants (Quarry, project development)	\$4,070
California Trout, Inc. (All, project management)	\$5,000
Project Total	\$1,016,059

The anticipated source of the Conservancy's funds will be the fiscal year 2007/2008 appropriation from the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84). The project is appropriate for funding under this source as these funds are available for the acquisition, enhancement, restoration, protection and development of coastal resources in accordance with the Conservancy's enabling legislation. Projects that restore natural resources are given priority if they meet one or more of the criteria specified in Public Resources Code § 75071. The proposed restoration project satisfies the following specified criteria: (a) Landscape/Habitat Linkages, the project will contribute to linking creek habitat for endangered fish species to other creek habitat and to the ocean and facilitate needed movement of these endangered species; (b) Watershed Protection – the project will contribute to long-term protection of and improvement to the water and biological quality of the Eel River and the near shore area of the Pacific Ocean; and (c) Non-State Matching Funds, the project will be supported with substantial non-state funding, as specified in the following paragraph.

The project will be supported by contributions from a variety of state and non-state sources. Regarding Woodman Creek, the NOAA-American Rivers Partnership, a federal/nonprofit partnership, will contribute \$85,000 towards project design. Regarding Quarry Creek, non-State funding includes: NOAA Fisheries has previously contributed \$8,700 in channel design and assessment, and will provide \$50,000 for pre and post construction monitoring to assess winter rearing and spawning utilization; FishAmerica Foundation will contribute \$65,000 towards the project design; SHN Consulting Engineers will provide \$3,350 in engineering services while drafting bridge specifications; Kernan Construction will donate \$69,865 in construction costs and materials; Humboldt Fish Action Council will contribute \$6,410 in time and labor including riparian planting and fencing activities; and Streamline Planning Consultants has provided \$4,070 in surveys, aerial photography and project development. Regarding Bridge Creek, CDFW will contribute state funds in the amount of \$488,664 for implementation. Finally, CalTrout will contribute about \$5,000 in project management and post project monitoring services towards the Bridge, Redwood, Quarry and Woodman Creek projects.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

The proposed project is undertaken pursuant to Chapter 6 of Division 21 of the Public Resources Code, as follows:

Pursuant to §31251, the Conservancy may award grants to local public agencies and nonprofit organizations for the purpose of enhancement of coastal resources which, because of human-induced events, or incompatible land uses, have suffered loss of natural and scenic values. Consistent with this section, the proposed authorization provides funds to CalTrout to enhance coastal fishery resources disturbed by incompatible land uses, such as inappropriate culvert installation or legacy slide events resulting from historic timber operations.

Pursuant to §31251.2(a), “In order to enhance the natural or scenic character of coastal resources within the coastal zone, the Conservancy may undertake a project or award a grant . . . to enhance a watershed resource that is partly outside of the coastal zone. . . .” Consistent with this section, CalTrout, which operates inside and outside of the coastal zone, requested Conservancy assistance with projects located outside the coastal zone. This assistance was sought in order to design and implement a series of projects intended to benefit salmon populations known to travel many miles upstream of the coastal zone boundary in order to fulfill their life history patterns. Indeed, salmon depend on unimpeded access to high quality habitat both within and outside of the coastal zone in order to survive. If salmon and other highly prized aquatic resources are to be maintained and restored to historic levels, projects to improve salmon habitat must be undertaken both within and outside the coastal zone. Section 31251.2 also requires the review and approval of the California Department of Fish and Wildlife. As a co-funder of the Bridge Creek project, and supporter of the Redwood, Woodman and Quarry Creek projects, the Department fully endorses the proposed Conservancy funding, which furthers the objectives of CalTrout in the context of this grant request. A support letter for this authorization from the Department is included in Exhibit 3.

Pursuant to §31253, “[t]he Conservancy may provide up to the total of the cost of any coastal resource enhancement project” Consistent with this section, the proposed contribution, intended for design and implementation of three significant projects, represents a small component of the overall project cost and, in determining the funding amount, the Conservancy has considered factors relevant to project eligibility, as detailed in the “Consistency with Conservancy’s Project Selection Criteria & Guidelines” section, below.

**CONSISTENCY WITH CONSERVANCY’S 2013
STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):**

Consistent with **Goal 5, Objective E** of the Conservancy’s 2013-2018 Strategic Plan, the proposed project will implement three and prepare for implementation one project to improve barriers to fish passage...and provide instream habitat and favorable water temperatures.

Consistent with **Goal 5, Objective G** of the Conservancy’s 2013-2018 Strategic Plan, the proposed project will implement three projects (Bridge, Redwood and Quarry Creek) that will improve water quality to benefit coastal and ocean resources by reducing erosion, aggradation and the threat of episodic delivery of vast sediment supplies into coastal rivers.

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

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines, last updated on November 10, 2011, in the following respects:

Required Criteria

1. **Promotion of the Conservancy's statutory programs and purposes:** See the "Consistency with Conservancy's Enabling Legislation" section above.
2. **Consistency with purposes of the funding source:** See the "Project Financing" section above.
3. **Support of the public:** The proposed project enjoys the support of U.S. Congressman Jared Huffman, State Senator Noreen Evans, Assemblyman Wesley Chesbro, the North Coast Railroad Authority, and many resource agencies including the Department of Fish and Wildlife, NOAA Fisheries and more. (See Exhibit 2).
4. **Location:** The project sites are entirely outside of the coastal zone, but will benefit coastal resources by providing coastal salmon populations with sufficient habitat to fulfill their life history patterns. Quarry Creek is tributary to the Mad River and is located near Blue Lake in Humboldt County. Bridge Creek is tributary to the mainstem Eel and is located near Holmes Flat, Humboldt County, approximately 6.0 miles downstream from the confluence of the South Fork Eel River and mainstem Eel River. Redwood Creek is tributary to the South Fork Eel River and is located slightly north of Garberville, Humboldt County. Woodman Creek is tributary to the mainstem Eel River, and is located outside of Laytonville, Mendocino County.
5. **Need:** The grant funds already awarded for these projects are subject to the receipt of sufficient matching funds for implementation. Absent Conservancy support, the grantee will have insufficient funds to pursue these worthy and financially supported projects. Regarding Woodman Creek, it is important to note that no project may proceed without basic design work, and the Conservancy is one of the few funders willing to bridge the divide between concept and full implementation. Without the Conservancy spearheading project development, project implementation will be sparse and relatively ineffective on a statewide level.
6. **Greater-than-local interest:** The State is the sum of its parts, and few parts are more important to the health and well-being of the State than its coastal counties, coastal fisheries, and coastal communities that depend upon those fisheries. Sportfishing is of ever-increasing importance to the State economy, and substantial investments have been made in creative marketing for commercial fisheries, but absent abundant fisheries, a ready source of a high quality sportfish or seafood product will, for practical purposes, disappear from our markets. Recovering coastal salmon populations to sustainable levels is of national interest, and California can and should play a major role in this effort. Reopening historic habitat while improving public infrastructure where advisable is an excellent way to achieve this goal.
7. **Sea level rise vulnerability:** Located well outside the coastal zone, the proposed projects suffer no vulnerability from sea level rise.

Additional Criteria

8. **Urgency:** For three years the Mad and Eel rivers have enjoyed record returns of salmon and steelhead. Leveraging the success of past investments in recovery while populations are high is of the greatest importance so that in future years of depressed populations increased habitat availability will help offset lower returns of fish. With respect to Redwood Creek there is particular urgency in remediating a barrier to upstream juveniles now trapped behind the barrier, as well as preventing a large slide from entering an otherwise highly productive watershed.
9. **Resolution of more than one issue:** All project sites share in common a theme of industrial development achieved at the expense of habitat quality. Conversely, all share the opportunity to bring past developments into compliance with recent standards that promote both industrial progress and natural resource enhancement. In the case of Quarry Creek, this entails improving an active gravel quarry to restore fish passage and riparian habitat formerly removed in the rush to extract gravel from the area. In the case of Woodman and Bridge Creek, this entails removing, or designing for removal tens of thousands of cubic yards of material placed amid active stream channels in an effort to develop a railroad corridor as rapidly as possible. In the case of Redwood Creek this entails remediating a legacy slide caused by inappropriate timber harvest practices of the past and promoting the health of an existing orchard nearby. None of these projects precludes continued use of the crossings or areas for their originally intended purpose, but all of these projects improve the sites for natural resource management purposes.
10. **Leverage:** See the “Project Financing” section above.
11. **Conflict resolution:** As described in number 9, above, the proposed projects all terminate decades of quarreling between resource agencies and landowners about the nature and severity of the barriers and the manner in which the barriers should be remedied.
12. **Readiness:** CalTrout has demonstrated its ability and desire to commence and complete the projects timely.
13. **Realization of prior Conservancy goals:** “See “Project History” above.”
14. **Cooperation:** Each project entails extensive cooperation and dedication of resources from a variety of parties, notably the landowners. Quarry Creek represents the broadest partnership, including tens of thousands of dollars in donated equipment and labor. Bridge and Woodman Creek reflect the consummation of a long-sought partnership between the NWPR and conservationists at barriers sites in the Eel River and its tributaries. Redwood Creek demonstrates a strong cooperative and mutually beneficial arrangement with the adjacent landowner in which the landowner is contributing technical know-how and equipment towards the effort.
15. **Vulnerability from climate change impacts other than sea level rise:** The project sites have been selected in part due to their probable hospitability to pacific salmon populations in an era of climate change. Each creek enjoys cool and relatively undiverted streamflows that are likely to support pacific salmon populations for the foreseeable future.
16. **Minimization of greenhouse gas emissions:** The applicant will ensure that the contractors employ best management practices (e.g. low idling rates) during project construction so as to minimize greenhouse gas emissions.

CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:

The proposed authorization will include two sites from Humboldt County, and one site from Mendocino County. The project sites are entirely outside of the coastal zone, but the aquatic resources and habitat quality of stream channels within and outside of the coastal zone boundaries are inextricably linked. Barriers to fish passage affect coastal resources regardless of barrier location within the watershed. The anadromous fish populations that spend part of their life history within the coastal zone reside for extended periods outside of the coastal zone, and therefore depend upon free passage within a watershed throughout their life history.

The proposed project is consistent with the language of the relevant County LCPs in the following respects:

Humboldt County

The authorization is consistent with the relevant portions of the Humboldt Bay Local Coastal Program (LCP), which was certified by the Coastal Commission on October 14, 1982, and which states:

“The biological productivity and the quality of coastal waters, (and) streams . . . appropriate to maintain optimum populations of marine organisms . . . shall be maintained, and, where feasible, restored through . . . minimizing alteration of natural streams.” (LCP, 3-55)

“New development within stream channels shall be permitted when there is no less environmentally damaging feasible alternative, where the best feasible mitigation measures have been provided to minimize environmental effects, and shall be limited to . . . wetlands, fishery, and wildlife enhancement and restoration projects. . . .” (LCP, 3-56)

Because the proposed authorization will implement projects designed to re-create riparian habitat where it has been lost, restore the natural meander and in stream habitat of the project area, improve sediment flushing by restoring natural geomorphologic processes, and open up previously unavailable habitat, the proposed authorization is entirely consistent with the LCP Policy stated above.

Mendocino County

This authorization is consistent with the portions of the Coastal Element of the Mendocino County Land Use Plan (LUP)—part of Mendocino County’s Local Coastal Program (LCP), which was certified by the Coastal Commission on September 10, 1992,. Relevant policies of which are discussed below:

“Channelization, dams, or other substantial alterations of rivers and streams shall be limited to . . . necessary water supply projects. . . . Where any of these uses are permitted the best feasible mitigation measures shall be incorporated into the development.” (LUP Policy No. 3-1-9).

The proposed authorization seeks to reverse the ecological consequences of ill-conceived construction projects completed prior to the adoption of the natural resource protection policies enumerated in the LUP generally, and in this policy specifically. By planning for the

provision of fish passage facilities at dams and other barriers to fish passage, this authorization will begin to remove existing limitations to the historic range of commercially and socially important anadromous fish species, as well as other aquatic organisms, and set new standards for future compliance with this Policy. The proposed authorization is therefore consistent with, and will enhance the objectives of this policy.

“. . . No structure or development . . . which could degrade the riparian area or diminish its value as a natural resource shall be permitted in the Riparian Corridor except for . . . channelizations, dams or other substantial alterations of rivers and streams as permitted in Policy 3.1-9; pipelines utility lines and road crossings, when no less environmentally damaging alternative route is feasible. . . .” (LUP Policy No. 3-1-10).

The proposed authorization seeks to reverse the ecological consequences of ill-conceived construction projects completed prior to the adoption of the natural resource protection policies enumerated in the LUP generally, and in this policy specifically. By planning for the replacement of outdated road crossings and other barriers to fish passage with new fish passage facilities, this authorization will begin to remove existing limitations to the historic range of commercially and socially important anadromous fish species, as well as other aquatic organisms, and set new standards for future compliance with this Policy. The proposed authorization is therefore consistent with, and will enhance the objectives of this policy.

“The Mendocino Coast is an area containing many types of marine resources of statewide significance. Marine resources shall be maintained, enhanced, and, where feasible, restored; areas and species of special biologic or economic significance shall be given special protection; and the biologic productivity of coastal waters shall be sustained.”
(LUP Policy No. 3.1-25)

Whether within or outside of the coastal zone, the proposed authorization fits the general criteria and mandate of this policy by: 1) restoring marine resources such as anadromous fish which depend upon access to available habitat in coastal streams; 2) protecting areas of the Mendocino Coast and species there of special biologic or economic significance such as steelhead and coho salmon, both of which are species of both biologic and economic significance; and c) sustaining the biologic productivity of coastal waters by enabling anadromous fish to return to their spawning grounds. The proposed authorization is thus consistent with and implements Policy No. 3.1-25.

COMPLIANCE WITH CEQA:

Staff has reviewed the proposed project in its totality, and determined that the overall project is exempt from the California Environmental Quality Act (CEQA) pursuant to the CEQA Guidelines, Title 14 of the California Code of Regulations, sections 15262, 15306 and 15333, as follows.

Quarry, Bridge and Redwood Creek barrier removal and habitat enhancement efforts are exempt under section 15333 because these implementation project are small habitat restoration projects that cumulatively do not exceed five acres in size and will assure the maintenance, restoration, enhancement, or protection of habitat for fish, plants, or wildlife. The project meets the additional conditions of this categorical exemption in that there would be no significant adverse

impact on endangered, rare or threatened species or their habitat pursuant to CEQA Guidelines section 15065; there are no hazardous materials at or around the site; and the project will not result in significant impacts when viewed in connection with the effects of past, present, or probable future projects. Each of the projects has been reviewed and endorsed by CDFW and each is intended and designed to have beneficial effect on endangered species. Replacement of the failed culvert at Quarry Creek with a bridge will substantively improve habitat and reduce sedimentation within either watershed. Riparian planting and restoration along the streams will also measurably improve habitat with no material risk of adverse effect to the environment. Removal of the failing structures and vast quantities of fill subject to failure and delivery to the Eel River at Bridge Creek will provide immediate habitat benefits and provide a preventative measure against future introductions of silt and mud to a productive watershed. Similarly, bypassing the existing slide on Redwood Creek will provide necessary fish passage come winter, and will prevent thousands of cubic yards of soil from entering a highly productive watershed. In addition to these long-term beneficial effects, by design and approach, none of the project construction work will temporarily impact the endangered fish species because best management practices identified in the CDFW's Restoration Manual and in permit terms established by NOAA Fisheries and CDFW will be employed by the grantee and its contractors. Consistent with Section 15333, culvert removal will be undertaken in accordance with these published guidelines and permit terms.

Regarding Woodman Creek, preparation of the feasibility study and design involves only data gathering, planning, and feasibility analyses for possible future actions and is thus statutorily exempt from the provisions of the CEQA pursuant to CEQA Guidelines section 15262. The planning and design effort does not have a legally binding effect on future activities or authorizations, which would be subject to further CEQA review, and the Woodman Creek project will also encompass consideration of environmental factors in connection with development of permit application materials. The authorization for Woodman Creek is also categorically exempt under section 15306 as an information gathering and resource evaluation activity.

Staff will file a Notice of Exemption upon approval.