

COASTAL CONSERVANCY

Staff Recommendation
April 24, 2008

COASTAL STREAMFLOW STEWARDSHIP PROJECT: FEASIBILITY STUDIES

File No. 08-034-01
Project Manager: Michael Bowen

RECOMMENDED ACTION: Authorization to disburse up to \$1,000,000 to Trout Unlimited to prepare a feasibility study of water conservation recommendations for key coastal watersheds located throughout California.

LOCATION: Five to eight coastal watersheds selected from the candidate stream list (Exhibit 1).

PROGRAM CATEGORY: Resource Enhancement

EXHIBITS

- Exhibit 1: [Project location: Candidate stream list](#)
 - Exhibit 2: [Coastal Streamflow Stewardship Project Summary](#)
 - Exhibit 3: [Pine Gulch Creek Staff Recommendation](#)
 - Exhibit 4: [Letters of Support](#)
-

RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31251-31270 and 31111 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes the disbursement of an amount not to exceed one million dollars (\$1,000,000) to Trout Unlimited for the preparation of a feasibility report for water conservation projects, including but not limited to conceptual designs for water-storage facilities, to assist in the conservation of water and the protection and enhancement of anadromous fish in at least five key coastal watersheds. Prior to the disbursement of Conservancy funds for the project, the Executive Officer of the Conservancy shall approve in writing a final work program, including schedule and budget, and any contractors to be employed for the 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 Sections 31251-31270 and 31111 of the Public Resources Code regarding the enhancement of coastal resources and authorization to fund feasibility studies.
2. The proposed project is consistent with the Project Selection Criteria and Guidelines adopted by the Conservancy on September 20, 2007.
3. Trout Unlimited is a nonprofit organization existing under Section 501(c)(3) of the Internal Revenue Code, and whose purposes are consistent with Division 21 of the Public Resources Code.”

PROJECT SUMMARY:

The proposed authorization of one million dollars to Trout Unlimited will enable this nonprofit organization to conduct data collection and prepare a feasibility study of water management projects in selected watersheds. Recommended water management projects will provide for the maintenance of instream flows for anadromous fish resources while also providing for agricultural needs. Specific recommendations will include, but not be limited to, the design of water storage facilities, the recommendation of appropriate pumping practices, the provision of contemporary water conservation practices, and other measures. The Coastal Streamflow Stewardship Project (“CSSP”) is designed to foster voluntary and cooperative water conservation efforts on key coastal watersheds where, due to inadequate water resource management, the beneficial uses provided by streams are in danger of being degraded or lost. The feasibility study will analyze implementation of new water management projects and operational changes that will both support sustainable agriculture and enhance aquatic habitat, with a focus on habitat that supports threatened and endangered coho salmon and steelhead trout. The study will develop projects that significantly improve the ability of farmers to protect instream flow throughout the year for the benefit of anadromous fish and other aquatic species, while providing a reliable water supply that promotes and increases agricultural sustainability in various areas of the coastal zone through a coordinated “watershed approach” to water diversions.

At selected watersheds, Trout Unlimited would first assess the water resources available, and then explore ways of managing that finite resource in a coordinated manner. Doing so would help to ensure that the availability of instream flows is both sufficient to provide for agricultural needs, and to protect and maintain instream flows for anadromous fish resources. In particular, Trout Unlimited would study and recommend ways to increase stream diversion levels and storage capacity when flows are high, and reduce and even eliminate stream diversions when flows are low. Doing so requires adjusting water use from year-round direct diversions to seasonal appropriation and storage of water for later use (an appropriative right requires a permit, but enables the holder to withdraw and store water for later use for a period of greater than 30 days).

The CSSP will build upon and use information gleaned from the Pine Gulch Creek Watershed Enhancement Project (“Pine Gulch Creek”) project in Marin County, previously funded by the

Conservancy in 2007 (Exhibit 3). In the case of Pine Gulch Creek, a suite of physical solutions was developed to balance competing demands for finite water resource. Such physical solutions included new storage and delivery infrastructure, off-stream ponds, and also less obvious applications like a rotation schedule. In Pine Gulch, water will be appropriated to newly designed storage facilities during the winter season, limited riparian diversions will be allowed between spring and early summer, and typically no diversion of water will be allowed between July 1 and December 15 of each year. This approach was developed through consultation with the California Department of Fish and Game (“CDFG”), National Marine Fisheries Service (“NOAA-Fisheries”), and State Water Resources Control Board (“SWRCB”). Design and permit work is expected to be completed in 2008.

Although Pine Gulch Creek is nearly ready for construction, this approach has yet to be developed elsewhere. The purpose of the CSSP is to take the success of Pine Gulch Creek, and attempt to translate it to other key coastal watersheds. If successful, water users in other watersheds identified in this project will similarly apply for appropriative water rights, and dedicate their summer, commercial irrigation riparian water rights to instream flow for the benefit of fish habitat.

Under the proposed authorization, Trout Unlimited will pursue a six step process described in detail in the CSSP Summary (Exhibit 2), and further summarized as follows:

- 1) The grantee will identify streams within five to eight coastal watersheds that will make up the project area. Streams will be selected based upon readily available information, and upon the following criteria: feasibility of restoration of salmonids, the impairment of the stream due to diminishing flows, and the degree to which stream flows appear to be a limiting factor to full recovery of salmonid population levels. Selected streams will also be geographically diverse and will share a demonstrable community of water users eager to participate in the project so that the study can present an array of water management challenges and opportunities to create flexible models with wide applicability.
- 2) Following stream selection, the grantee will collect more detailed data concerning salmonid resources, fish passage barriers, streamflow, diversion activities, diversion permit conditions, water right protests, and similar issues.
- 3) The grantee will identify data gaps and will begin collecting information needed to characterize water supply and instream flows in selected streams, including, but not limited to, habitat resources, streamflows, water supply infrastructure, and related concerns such as groundwater/surface water relationships and water diversions. The grantee will compile a detailed inventory of information pertaining to aquatic habitat and instream flow for each selected study stream.
- 4) From an analysis of the available data and stream characterizations, the grantee will develop specific stream flow recommendations. These recommendations will be derived from stream characterizations from hydrologic models for the study area and discussions with interested parties, including water users and regulatory agencies, regarding the scientific principles and technical assumptions that will form the basis of the water-

modeling effort so as to clarify the methods of the analysis to increase both the credibility and legitimacy of the stream flow recommendations. Instream flow recommendations will reflect stream location, magnitude, timing, and water sources necessary for a given degree of habitat protection. The final outcome for this task will be instream flow recommendations for each study stream that can form the basis for stream management plans developed in subsequent tasks.

- 5) Concurrent with the analysis of the technical feasibility of new water management techniques, the grantee will also study the social feasibility of the projects by engaging study participants and stakeholders in a dialogue to develop the legal and institutional framework necessary for implementing a water management approach. The landowner guidance manual and other outreach materials developed at the Pine Gulch Creek project will be used to engage in a constructive dialogue with water diverters, regulatory agencies and other interested parties.
- 6) The grantee and participants will establish individual stream management plans to achieve stream flow recommendations, which may include recommendations regarding legal entities capable of administering stream management plans. These plans will include a water use and demand analysis, an opportunities analysis to identify feasible means of improving water management, quantifiable management goals and objectives to achieve stream flow recommendations, specific recommended management actions, cost-sharing opportunities to implement the recommendations, and a recommended program for monitoring, evaluation and quality assurance of the plan.

One of the most innovative aspects of the study is the coherent and comprehensive approach to addressing instream flow challenges. The participants in this project will, through a commitment to careful study and analysis of alternatives, identify all existing sources of diversion, and quantify how their effort will have a measurable and beneficial effect upon the entire watershed, not simply at the point of a single diversion. Thus, the participants will address diversions comprehensively and coherently to guarantee instream flow for fishery habitat protection.

Trout Unlimited has extensive experience addressing conflicting land uses and permitting hurdles facing enhancement projects and is therefore uniquely positioned to promote and achieve the goals of this project. Trout Unlimited's mission is to conserve, protect and restore North America's salmon and trout fisheries and their watersheds. It is the nation's oldest and largest coldwater conservation organization, with approximately 150,000 members in the U.S., and 14,000 in California. For this project, Trout Unlimited will also work with the Center for Ecosystem Management and Restoration ("CEMAR"), via a subcontract. CEMAR's mission is to make effective use of scientific information to promote the restoration and sustainable management of ecosystems.

Site Description:

Selected streams for the project will be drawn from the proposed candidate stream list (Exhibit 1). Selected streams will be geographically diverse extending from the Conservancy's

Southcoast to Northcoast regions. All selected streams will provide habitat for federally listed Central California Coast or Southern Oregon and Northern California (SONC) coho salmon (*Oncorhynchus kisutch*), and southern California or Central California Coast steelhead trout (*Oncorhynchus mykiss*).

Project History:

This study is part of an ongoing effort by the Conservancy to promote long term management of coastal water resources, often requiring the balance of competing uses such as agricultural, habitat and water quality needs. Several Conservancy projects have dealt with these challenges. For example, at the acquisition sites of Coast Dairies, in Santa Cruz County, and Cascade Ranch, in San Mateo County, the Conservancy and other stakeholders struggled to balance competing uses, often in the context of complex, and corollary issues, such as the presence of listed species, coastal access issues, low-income housing, and regulatory hurdles that prevent progress with water management proposals. In other locations, such as the Mattole River, in Mendocino County, the Conservancy has assisted local landowners with efforts to implement water conservation measures. While these efforts have been locally successful, the CSSP will apply information gained from these local projects to help devise a comprehensive and coordinated approach to water management and instream flow protection.

The study will help determine the feasibility of new water management techniques and will help to address a backlog of pending water rights applications. As of 2004 in the coastal area from San Francisco Bay to the Mattole River, there were approximately 500 pending water rights applications; an additional 1,200 existing but unpermitted reservoirs were found on these coastal watersheds; and the SWRCB estimated that approximately 1,700 existing but unpermitted reservoirs, plus an unknown number of diversions affected streamflow in this area. The need for a comprehensive approach to water management to address this backlog was demonstrated by the passage of Water Code Sections 1259.2-1259.4. Recognizing that increasing demand and the overallocation of streamflows was leading to general resource degradation, the legislature directed the SWRCB to adopt principles and guidelines for maintaining instream flows in certain streams in accordance with state policy for water quality control, for the purposes of water right administration. *See also* Stats.2004, ch. 943. SWRCB released its draft *Policy for Maintaining Instream Flows in Northern California Coastal Streams* (“Instream Flow Policy”) in December 2007. The SWRCB supports the proposed project because the information gained will help in addressing the numerous pending water applications and the implementation of the Instream Flow Policy.

PROJECT FINANCING:

Coastal Conservancy	\$1,000,000
Bechtel Foundation	\$37,500
Campbell Foundation	\$120,000 (\$40,000 received on 3-year grant)
Dean Witter Foundation	\$50,000 (pending)
Goldman Foundation	\$ Pending
Total Project Cost	\$1, 275,000 (current)

The anticipated source of funds will be the fiscal year 07/08 Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84). Proposition 84 authorizes the use of these funds for purposes of the protection of coastal waters and watersheds and to protect and restore the natural habitat values of coastal waters and lands. (Public Resources Code Section 75060). Funds may be used for projects in accordance with the Conservancy's enabling legislation, Division 21 of the Public Resources Code. (Public Resources Code Section 75074). This project is also appropriate for prioritization under the selection criteria set forth in Section 75071 in that there are non-state matching contributions toward the restoration, stewardship or management costs and the project will contribute to the long-term improvement to water and biological quality of the selected streams, and other coastal waters.

In addition to Conservancy funding, Trout Unlimited has obtained and will dedicate substantial match from private foundations. Trout Unlimited will also seek additional funds from foundations and local sources, such as water purveyors within or near watersheds to be treated in this project. Additional funds will be used to expand or enhance the project, or to carry successful project concepts to the next phase of design and implementation, as has been done at Pine Gulch Creek.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

The proposed project is undertaken pursuant to Chapter 6 of Division 21, Sections 31251-31270 of the Public Resources Code and Section 31111, regarding enhancement of coastal resources, as follows:

Section 31111 authorizes the Conservancy to award grants to nonprofit organizations to prepare feasibility studies. Pursuant to Section 31251, the Conservancy may award grants to nonprofit organizations for the purpose of enhancement of coastal resources that, because of human-induced events, or incompatible land uses, have suffered loss of natural and scenic values. Consistent with this section, the proposed project provides funds to Trout Unlimited, a nonprofit organization, to conduct data collection and feasibility level analyses necessary to prepare materials for the development and implementation of water conservation projects, including proposed water storage facilities. When implemented, the project will protect selected coastal streams and their coastal fishery resources by enhancing instream flows. The study will also provide a template for application to other watersheds facing similar resource management challenges. Furthermore, the proposed project will be consistent with each applicable local coastal plan because the study focuses on coastal anadromous salmonid habitat specifically identified as being in need of enhancement and restoration, as discussed in detail below under the heading "Consistency with Local Coastal Program Policies," pursuant to Public Resources Code Section 31252.

Section 31251.2 (a) provides that "[i]n 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, the proposed study will serve to advance enhancement of salmonid habitat in locales that are chiefly within the coastal zone, but parts of which are located outside the coastal zone. Nonetheless, the proposed project as a whole will expedite restoration of coastal zone resources

that will benefit the anadromous fish that rely on both the coastal and upstream habitats for their survival.

Finally, under Section 31253, the Conservancy “may provide up to the total of the cost of any coastal resource enhancement project...” and the amount of the Conservancy contribution is determined after an assessment of funding generally available and other factors. The proposed contribution by the Conservancy was determined based on application of priority criteria and after taking into account other available resources and the matching contributions to the project by other funding sources to previous phases of the project.

CONSISTENCY WITH CONSERVANCY'S STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):

Consistent with **Goal 6 Objective A** of the Conservancy's 2007 Strategic Plan, the proposed project will facilitate the development at least five individual water management and conservation plans for implementation.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA & GUIDELINES:

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines adopted on September 20, 2007, 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 study has received extensive support and project development assistance from the SWRCB's Division of Water Rights. The study is also supported by numerous state agencies and private entities, including the SWRCB, California Department of Fish and Game, the County of Santa Cruz, the Sonoma County Water Agency, the Fishery Network of Central California Coastal Counties (FishNet 4C), Ellison, Schneider & Harris L.L.P. (counsel to numerous grapegrowers, vineyard owners and other landowners in the Northcoast), the United Winegrowers for Sonoma County, the Sonoma County Winegrape Commission, among others (Exhibit 4). The letters of support are directed to the Ocean Protection Council because of the initial thought that the OPC would serve as the funder. However, the OPC staff recently determined that this project was not fundable under their schedule for 2008.
4. **Location:** The proposed study will be conducted in selected coastal streams drawn from the candidate stream list (Exhibit 1) and will benefit resources in the coastal zone pursuant to Public Resources Code Section 31251.2
5. **Need:** Water management has always presented a major challenge for California; but with increasing demands and the effects of climate change water management challenges are

going to rise to a crisis level. This is particularly true in coastal watersheds where limited storage options exist, and where high summer demands for agriculture and other uses prevail. These human needs often conflict with habitat needs for species such as coho salmon and other aquatic resources. Population increases and climate change effects render an already difficult resource management situation more challenging. Absent development of a comprehensive water management scheme, conflicts over water use will increase further degradation of remaining natural resources will continue, and an already overextended resource will be further compromised. Recognition of these challenges has brought many unlikely partners to engage in a constructive dialogue regarding future management options. Coordinated flow management, and water conservation measures are policy goals shared by many seeking to protect adequate instream flows for the protection of aquatic resources. This pilot project, if successful, could pave the way for similarly-oriented projects elsewhere.

6. **Greater-than-local interest:** Water conservation and the protection of beneficial uses is of statewide significance, and the development of coordinated water management and conservation plans, including the successful shift from riparian to appropriative water rights on coastal watersheds, would provide great policy experience and direction to resource managers statewide.

Additional Criteria

7. **Urgency:** Coho salmon are currently at six to fifteen percent of their abundance during the 1940s. The *Recovery Strategy for California Coho Salmon*, prepared by the Department of Fish and Game in February 2004 (“Coho Recovery Strategy”) amply characterizes the deleterious effect of instream diversions on available habitat. The report states “(a) common problem in minimizing the direct and cumulative effects of diversions on instream flow is the lack of detailed data regarding minimum instream flow needs for coho salmon in a given stream... studies on the effects of smaller diversions are generally lacking, as are studies of overall instream flow needs in watersheds in the range of coho salmon. *The owners of smaller diversions frequently lack the resources to conduct the appropriate studies to evaluate instream issues.*” (Coho Recovery Strategy 3.6.3) (emphasis added). The Coho Recovery Strategy Section 7.1-7.2 makes a series of recommendations for addressing the instream flow challenge, all of which are consistent with the goals and objectives of the CSSP.

This study is also urgently needed to assist the SWRCB Division of Water Rights implement the Instream Flow Policy and resolve delays in processing water rights applications (described above), which has created uncertainty for agricultural users. Existing regulatory mandates and pressures, combined with a worsening management scenario, render this proposed project all the more urgent. Practical solutions to a challenging resource management crisis are sorely needed.

8. **Resolution of more than one issue:** The project will develop conservation recommendations and management strategies with the goal of protecting and balancing many competing uses of water in a reasonable and equitable manner. The study will address procedural, technical and biological challenges associated with the stewardship of our coastal watersheds.
9. **Leverage:** The Conservancy and the project proponent are in a unique position to leverage the success of Pine Gulch Creek, the interest and current cooperation of the regulatory

community, private foundation funding, the mandates of Water Code Section 1259.2 – 1259.4, and the current goodwill of many water diverters in order to achieve meaningful improvements to water conservation on coastal streams. Trout Unlimited has also committed to seek funding to develop pilot projects to build on recommendations resulting from the study.

10. **Readiness:** Trout Unlimited is ready to complete the proposed project.
11. **Realization of prior Conservancy goals:** At many project sites the Conservancy has struggled to protect coastal watersheds through the prudent management of coastal water resources. The study will build upon and apply information learned about the conservation and protection of water resources in our coastal watersheds from the Conservancy-funded Coast Dairies, Cascade Ranch, Mattole River, and Pine Gulch Creek projects (described above in the “Project History” section).
12. **Innovation:** Although it makes infinitely good sense to monitor streamflow in real time and with existing technology, and then allocate finite resources based upon quantified available resources, thereby assessing resource status and avoiding cumulative impacts, doing so is the exception rather than the rule. The proposed project will take this approach over multiple watersheds, attempting to find a new solution to a serious resource problem.
13. **Cooperation:** The cooperation already cultivated for the development of this project is unprecedented, and provides hope for resolving existing and future water use disputes on coastal watersheds.

CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:

The project will be consistent with all applicable local coastal plans in each of the selected project areas because the study will focus on coastal anadromous salmonid habitat specifically identified in the pertinent certified local coastal plans as being in need of enhancement and restoration, pursuant to Public Resources Code Section 31252. Selected streams will be located both within and outside of the coastal zone. However, because the aquatic resources and habitat quality of stream channels are inextricably linked, the study will ultimately benefit resources within the coastal zone. Barriers to fish passage can be caused by insufficient flow levels and elevated stream temperatures caused by excessive diversion. Such barriers affect coastal resources regardless of barrier location within the watershed. The anadromous fish populations that spend part of their life within the coastal zone reside for extended periods outside of the coastal zone, and therefore depend upon free passage and hospitable residence within a watershed throughout their life history.

COMPLIANCE WITH CEQA:

The proposed project is statutorily exempt from review under the California Environmental Quality Act (“CEQA”) pursuant to 14 California Code of Regulations Section 15262, in that it would involve only planning studies and feasibility analyses for possible future action not yet adopted by the Conservancy. Preparation of the study does not legally bind the Conservancy to future implementation of protection, restoration or enhancement projects that are designed using the study. The authorization is also exempt under 14 California Code of Regulations Section

15306, which exempts basic data collection, research, and resource evaluation activities which do not disturb an environmental resource. Following board authorization of the project, staff will file a notice of exemption.