

COASTAL CONSERVANCY

Staff Recommendation  
December 8, 2005

**PINE GULCH CREEK WATERSHED ENHANCEMENT:  
INSTREAM FLOW ENHANCEMENT PROJECT**

File No. 05-096

Project Manager: Michael Bowen

**RECOMMENDED ACTION:** Staff recommends that the State Coastal Conservancy amend its August 14, 2003 authorization to now disburse to Sustainable Conservation up to \$50,000 for the preparation of the final design and permits for an offsite water storage facility to assist in the conservation of anadromous fish resources in Pine Gulch Creek, a tributary to the Bolinas Lagoon, in Marin County.

**LOCATION:** Pine Gulch Creek, a tributary to Bolinas Lagoon, Marin County (Exhibit 1)

**PROGRAM CATEGORY:** Resource Enhancement

---

**EXHIBITS**

Exhibit 1: Project location and site map

Exhibit 2: August 2003 Staff Recommendation for original grant to Sustainable Conservation

Exhibit 3: Project Summary and Detail

Exhibit 4: Letters of Support

---

**RESOLUTION AND FINDINGS:**

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31251-270. of the Public Resources Code:

“The State Coastal Conservancy hereby amends its August 14, 2003 authorization to now disburse an amount not to exceed fifty-thousand dollars (\$50,000) to Sustainable Conservation, for the preparation of final design and permits for an offsite water storage facility to assist in the conservation of anadromous fish resources in Pine Gulch Creek, a tributary to the Bolinas Lagoon, in Marin County, subject to the following condition:

Prior to the disbursement of 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 the purposes and criteria set forth in Chapter 6 of the Public Resources Code (Sections 31251-270) regarding the enhancement of coastal resources.
2. The proposed project is consistent with the Project Selection Criteria and Guidelines adopted by the Conservancy on January 24, 2001.
3. Sustainable Conservation is a nonprofit organization existing under Section 501(c)(3) of the U.S. Internal Revenue Code, and whose purposes are consistent with Division 21 of the Public Resources Code.”

---

### **PROJECT SUMMARY:**

Sustainable Conservation seeks to assist a variety of partners with the planning for development of offstream water storage facilities to ensure the protection of instream flows in Pine Gulch Creek, an important steelhead and coho salmon stream tributary to Bolinas Lagoon. Currently, as in many coastal streams, farmers exercise riparian water rights, drawing water throughout the year directly from the stream for irrigation purposes. This practice frequently renders instream habitat inhospitable for juvenile salmon and other aquatic species. By facilitating the development of offsite storage for these farmers, and concurrently transferring riparian to appropriative rights, both the continued availability of an agricultural water supply and the protection of instream flow during low flow periods, typically from April through December, can be accomplished.

The project includes the preparation of final design and permits for of the development of an irrigation diversion and storage program intended to diminish existing riparian diversions between April and June. Development of appropriative diversions during peak events and the storage of diverted water in facilities that will accommodate water needs for the growing season between July and December are also part of the future development project. All irrigation water diversions will occur through screened pumps withdrawing water from the water column or intakes installed into the gravel of the stream bed. All water diverted will be pumped into the ponds, and all irrigation of crops will be applied directly from the storage ponds. This will allow for lower diversion rates from the stream, further buffering the riparian diversion impacts. Because of limited storage, farmers would replace water used for irrigation with riparian water between April 1 and June 30, at rates and volumes already agreed upon, and as presented in the attached project summary (Exhibit 3). The farmers will dedicate all of their commercial riparian diversion between July 1 and December 15 to instream flow for the benefit of coho salmon and steelhead trout under California Water Code Section 1707 authority. This dedication will be linked directly with the appropriative storage rights associated with the proposed ponds. Concurrent to the county permit submittals, the farmers will submit appropriate applications to the State Water Resources Control Board.

One of the most notable aspects of the instream flow enhancement effort is the coherent and

comprehensive approach to addressing instream flow matters. The partners through careful study and analysis of alternatives have identified all existing sources of diversion, and quantified 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 partners have addressed diversions comprehensively and coherently to guarantee instream flow for fishery habitat protection.

The instream flow enhancement effort has received extensive support and project development assistance from the Point Reyes National Seashore staff, the County of Marin, the California Department of Fish and Game (DFG), National Marine Fisheries Service (NMFS), and others.

The instream flow enhancement effort components needing Conservancy funding include:

1. *Planning and design for the offsite storage facilities;*
2. *Development of a Safe Harbor Agreement to farmers in the event Red Legged Frogs begin utilizing new ponds;*
3. *Negotiation of water rights permits;*
4. *Preparation of the environmental analysis and permit terms;*

These tasks are described in additional detail below.

*Task 1. Final planning and design for the offsite storage facilities*

Pond feasibility and design has been completed by Lee Erickson of Erickson Engineering. However, although the sites are identified and the facilities are nearly complete, adjustments to the designs are anticipated in the course of negotiating the final terms of the permit applications for the project, requiring the services of an engineer for these final adjustments to the current project design. Sustainable Conservation will retain the services of a contractor to oversee the engineer responsible for refining the designs as needed.

*Task 2. Safe Harbor Agreement*

Upon completion of the ponds, the California red legged frogs (CRLF), a federally listed species currently absent from the project area, may colonize the ponds. Permitting agencies and project partners are concerned that, in the absence of a Safe Harbor Agreement, future activities based on future conditions will impair management options for landowners in the area. Thus, Sustainable Conservation will craft and seek approval of a Safe Harbor Agreement for the landowning farmers that will, while providing adequate protection for the habitat, allow farmers to continue their current land use practices. A landowner enrolled in a Safe Harbor Agreement voluntarily agrees to carry out activities expected to benefit an endangered species and in return the US Fish and Wildlife Service authorizes incidental take through an “enhancement of survival permit.” The permit provides participating landowners with assurances that no additional restrictions will be imposed. In the Pine Gulch Watershed, a Safe Harbor Agreement will assure landowners that maintenance and upkeep of their irrigation systems and routine farming operations will not trigger additional regulation despite the increased population of CRLF on their property. Sustainable Conservation will work with biologists from Point Reyes National

Seashore and participating farmers to ensure the ponds will provide the highest quality habitat for the California red legged frog possible while simultaneously supporting the ongoing agricultural operations on each of the properties involved.

*Task 3. Water Rights Permits*

The successful completion of this effort depends in large part on the willingness of landowners to surrender existing riparian water rights in favor of dedicated instream flow emanating from for the purpose of protecting instream habitat. Absent such a transfer of rights, there would be no assurance that the project as a whole would result in a net increase in and protection of instream flow, as any diverter could simply continue to exercise his riparian rights, thereby diminishing available instream flow, and impairing instream habitat. Sustainable Conservation will negotiate all new permit terms with expertise as needed.

*Task 4 Environmental Document and Permit Terms*

The project as currently proposed has the support of the DFG, NMFS, USFWS, National Park Service, County of Marin, and others. However, the instream flow enhancement effort will need to undergo an environmental analysis pursuant to the California Environmental Quality Act, which will inform the final permit terms.

Sustainable Conservation 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. The San Mateo Ponds Project, for which this grant was initially awarded, sought to achieve similar objectives, but was hampered by the lack of extensive background data, pre-project analysis, and widespread local support that the Pine Gulch Project enjoys.

**Site Description**

Pine Gulch Creek is an approximately seven mile long perennial stream draining a watershed of about 7.8 square miles in western Marin County. Three miles of the creek are within the coastal zone. The portion of the stream within the coastal zone is partially within lands of the Point Reyes National Seashore, but the majority flows through the agricultural lands of Paradise Valley and the Pine Gulch Creek Delta. The subject of this analysis, the Pine Gulch Creek Watershed Enhancement Project, is a voluntary cooperative effort on the part of the participating organic farmers: Fresh Run Farms; Paradise Valley Farms; and Star Route Farms, whose historic riparian water use for crop production date back several decades. As a group, these Bolinas farmers form a vital component of West Marin agricultural production. Upstream from the coastal zone, the creek flows entirely within lands of the Point Reyes National Seashore. Pine Gulch Creek is the principal source of freshwater to Bolinas Lagoon and probably contributes about one-half of the Lagoon's freshwater inflow. This flow is especially important in the summer when the remaining tributary streams dry up or are reduced to very low flows.

**Project History:**

The project, long proposed by DFG staff as a recommended condition of the farmer's streambed alteration permits, was formally developed in 1998, prior to the recent return of coho salmon to the watershed and the petition to list coho salmon as a State endangered species in this area. The initial project concept, submitted for a Coastal Permit/Grading Permit to the County of Marin in

September 2002, proposed construction of riparian ponds –limited by policy to 30 days of storage-- on each of the three participating farms. The intention of these riparian ponds was to enable the three farmers to regulate the amount and timing of pumping from the creek, thus reducing instantaneous withdrawals during the low flow periods.

The proposal led to extensive discussions between the County, DFG Water Rights Staff, NMFS, the farmers, and Point Reyes National Seashore (PRNS) staff, which in turn prompted several investigations into the optimum and most scientifically defensible proposal. Based on comments from the California Department of Fish and Game, NOAA-Fisheries, and the public, the farmers have modified the project as described above. Sustainable Conservation, on behalf of the project partners, contacted the Conservancy in 2005 to seek financial assistance with the final planning for this instream flow enhancement effort. Sustainable Conservation will retain the services of experts, as needed, to ensure timely completion of the aforementioned tasks.

**PROJECT FINANCING:**

Coastal Conservancy (cash)	\$ 50,000
Point Reyes National Seashore (In Kind)	\$ 50,000
County of Marin (In Kind)	\$ 25,000
<b>Total Project Cost</b>	<b>\$125,000</b>

**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, as follows:

Pursuant to Section 31251, the Conservancy may award grants to non-profit 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 project provides funds to Sustainable Conservation to conduct data collection necessary to prepare final materials for the development and implementation of this project designed to protect Pine Gulch Creek and its coastal fishery resources disturbed by human activities and incompatible land uses, such as excessive diversion of instream flows.

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 project will serve to forward enhancement of salmonid habitat in locales that is 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 and that will benefit the anadromous fish that rely on both the coastal and upstream habitats for their survival.

As required by Section 31252 the proposed project will focus on coastal anadromous salmonid habitat specifically identified in the pertinent certified local coastal plans as being in need of enhancement and restoration. Moreover, the project as a whole is consistent with those local plans, as discussed in detail below under the heading “Consistency With Local Coastal Program Policies”.

Finally, pursuant to 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 shall be determined only 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.

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

Consistent with **Goal 6 Objective A** of the Conservancy’s Strategic Plan, the proposed project will contribute to the development of approximately 70 plans and projects that will preserve and restore coastal watersheds and create river parkways.

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

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines adopted January 24, 2001, 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 is supported by DFG, NMFS, County of Marin, Assemblyman Joe Nation, Senator Carol Migden, and others (Exhibit 4).
4. **Location:** The proposed project would be located in western Marin at Pine Gulch Creek, near the community of Bolinas.
5. **Need:** Absent completion of the project, the recently returned coho salmon of Pine Gulch Creek, as well as other biological resources, are likely to be reduced in number if not extirpated as their habitat continues to degrade. Conversely, the opportunity for enhancement of Pine Gulch Creek and Bolinas Lagoon resources is very high should the project be implemented expeditiously.
6. **Greater-than-local interest:** The biological resources in Pine Gulch Creek are of statewide significance.

**Additional Criteria**

7. **Urgency:** Coho salmon are currently at six to fifteen percent of their abundance during the 1940s. Given this decline, and in light of the State Recovery Strategy's primary objective of returning coho salmon to a level of sustained viability, while protecting their genetic integrity, projects such as this with a high potential for recovering local populations of coho are a high State priority. Water diversions, and their effect on the biological resources of Pine Gulch Creek must be addressed quickly in order to restore this species to its former range.
8. **Leverage:** See the "Project Financing" section above.
9. **Innovation:** The partners engaged in this creative dedication of instream flow have succeeded in reaching a compromise over one of the most challenging resource conservation issues facing global communities: the use of water and its appropriate dedication instream for habitat conservation. Their success in reaching this critical stage should be rewarded with sufficient funds to complete their undertaking.
10. **Readiness:** Sustainable Conservation is fully ready to complete the proposed project.
12. **Cooperation:** The partnership cultivated for the development of this project is unprecedented, and provides a hopeful pilot project to resolve future water use disputes on coastal watersheds.

**CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:**

Few watersheds are treated as thoroughly and extensively as Pine Gulch Creek is treated in the Marin County Local Coastal Program Unit 1 for southern Marin, and seldom are the enhancement recommendations made so harmonious with a proposed project.

As indicated in Section II, Natural Resource Protection, "...(s)streams and riparian vegetation provide valuable and limited habitat for bird and animal life that must be protected under the policies of the Coastal Act....Two streams within Unit I are of special significance because they support annual runs of steelhead trout and silver salmon. Because of the importance of these fishery resources, the resource values of both Pine Gulch Creek and Redwood Creek are described in more detail below."

As the LCP acknowledges, following a discussion of the harmfulness of instream structures that impair fish passage, "water diversions can be equally harmful to the salmonid resource. This is especially critical during the low-flow period of July through October when diversions can seriously limit or completely eliminate available habitat." Further, the LCP states, "the anadromous fish resource is the most sensitive wildlife use of the Creek, but most other species found in the riparian zone are dependent on the flow of water to some extent. The diversion, reduction, or elimination of flows in the Creek will reduce the quality of the habitat for these species as well."

The LCP identifies six existing water diversions on file with the Division of Water Rights and raises the concern that, cumulatively, these diversions can withdraw 1.8 cubic feet per second in a system whose summer flows are likely less than that most of the time.

Therefore, the proposals objectives of diminishing withdrawals and dedicating instream flows during critically low flow periods are highly consistent with the LCP's objective of protecting the overall habitat of Pine Gulch Creek.

**COMPLIANCE WITH CEQA:**

Preparation of the project involves only data gathering, planning, and feasibility analyses for possible future actions and is thus statutorily exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to 14 California Code of Regulations Section 15262. Staff will file a Notice of Exemption upon approval.