

COASTAL CONSERVANCY

Staff Recommendation
October 21, 2010

SAN GERONIMO CREEK SALMON ENHANCEMENT PLAN IMPLEMENTATION, PHASE I: PARCEL PLANNING

Project No. 08-040-02
Project Manager: Joel Gerwein

RECOMMENDED ACTION: Authorization to disburse up to \$98,335 to the County of Marin to conduct parcel-level planning for salmon habitat enhancement in the San Geronimo Creek Watershed in Western Marin County.

LOCATION: San Geronimo Creek Watershed, Marin County

PROGRAM CATEGORY: Resource Enhancement

EXHIBITS

- Exhibit 1: [Project Location and Site Map](#)
 - Exhibit 2: [San Geronimo Valley Salmon Enhancement Plan](#)
 - Exhibit 3: [Draft Riparian Vegetation Ordinance](#)
 - Exhibit 4: [Project Letters](#)
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RESOLUTION AND FINDINGS:

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

“The State Coastal Conservancy hereby authorizes the disbursement of an amount not to exceed ninety-eight thousand three hundred thirty-five dollars (\$98,335) to the County of Marin (“County”) to provide technical assistance in salmon habitat enhancement planning to landowners in the San Geronimo Creek watershed, subject to the condition that, prior to disbursement of any funds, the County shall submit for the review and approval of the Executive Officer of the Conservancy a work plan, including a schedule and detailed budget, and the names and qualifications of any contractors to be employed for provision of said technical assistance.”

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 enhancement of coastal resources; and
 3. The proposed project area has been identified in the certified Local Coastal Plan of Marin as requiring public action to resolve existing or potential resource protection problems.”
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PROJECT SUMMARY:

The proposed project involves the provision of technical assistance in salmon habitat enhancement planning to landowners in the San Geronimo Creek watershed in western Marin County (Exhibit 1). The project is the first phase in the implementation of the San Geronimo Creek Watershed Salmon Enhancement Plan (“Plan”), whose preparation was partially funded by a Conservancy grant in 2008. Many of the Plan’s final recommendations describe actions and avoidance measures that private landowners can implement on their properties and many landowners in the San Geronimo Valley have shown themselves eager and willing to move forward with implementation of these recommendations, but lack the technical expertise to do so.

The San Geronimo Valley Planning Group (“Planning Group”) has joined the County of Marin Public Works Department and University of California Cooperative Extension to develop a San Geronimo Valley Landowner Assistance Program to provide landowners with technical advice and preliminary conceptual designs where needed, on a range of homeowners issues related to salmon protection and restoration. The Planning Group hosted a series of public meetings related to implementation and circulated a landowner survey whose goal was to identify what property owners believe is their highest priority needs for technical assistance. Survey results showed strong landowner interest in habitat enhancement and a strong need for technical assistance for the following issues related to salmon restoration:

- Stream bank restoration and erosion control
- Invasive weed removal and vegetation management for fire prevention
- Least toxic gardening, native plant restoration and integrated pest management
- Removal of fish passage barriers
- Woody debris management
- Proper disposal of chemicals and other toxic materials
- Rainwater infiltration practices, managing storm water on-site and gully repair.

During the project, a third party technical team of experts will conduct site visits and make recommendations to property owners on the issues listed above as they apply to each parcel. Evaluations will be conducted at the parcel scale and each landowner will receive a completed assessment that would include a set of recommendations, conceptual designs where applicable and estimated costs that the landowner could then use for construction. The project will also deliver conceptual designs to each landowner for streambank stabilization and erosion control projects, with a focus on biotechnical solutions (e.g. using willows rather than hard structures to stabilize banks) and incorporation of woody debris where feasible. The Planning Group is also working to identify and contact clusters of landowners with adjacent parcels who can work

together to implement larger restoration projects than could be accomplished on individual parcels. The project will include the development of 30% designs, engineers' cost estimates, and permitting and funding strategies for 15-20 restoration projects determined to be high priority by the technical team. The restoration designs and other recommendations that result from this project will be used in Phase II of Plan implementation, to seek funding for actual repairs and land-based restoration actions. Property owners who participate in this initial Phase of the project will be considered for future grant funds to be solicited from a variety of sources to support Phase II of implementation.

San Geronimo Creek is an un-dammed tributary to Lagunitas Creek that provides some of the best remaining habitat for coho within the Lagunitas Creek watershed. The Lagunitas Creek watershed has been identified as one of the most important watersheds in California for coho recovery and it also supports a significant population of steelhead. The coho salmon population in the Lagunitas Creek watershed makes up 10-20% of the total population in the Central California Coast Evolutionarily Significant Unit. This watershed has been the focus of salmonid restoration efforts for over twenty years. The recently completed Plan provides guidance for restoration and enhancement actions on the private lands that make up the San Geronimo Valley floor. Lands in the lower reaches of the Lagunitas Creek watershed are relatively well protected (they include State Parks, National Parks and Recreation Areas, and County and Water District property) and maintain habitat values important to coho and other native species. However, much of the land in the upper watershed is privately owned, and habitat values in this area are threatened by increased erosion, sedimentation and stormwater runoff, loss of riparian areas and floodplains to development, and invasive species. Coho outmigration research has documented that approximately 1/3 of Lagunitas Creek coho rear in headwater reaches in the San Geronimo Creek watershed. Ongoing development in the San Geronimo Creek watershed has underscored the need for protection and habitat enhancement for salmon and other species.

The project will further the implementation of the California Department of Fish and Game's ("DFG") 2004 "Recovery Strategy for California Coho Salmon" and National Marine Fisheries Service's 2007 draft coho and steelhead recovery plan, entitled "A Framework for Assessing the Viability of Threatened and Endangered Salmon and Steelhead in the North-Central California Coast Recovery Domain." The State and Federal recovery plans highlight the importance of protecting the best remaining habitat and improving degraded habitat to recover coho salmon. This project is consistent with the following Recovery Strategy recommendations concerning the Lagunitas Creek watershed:

BM-LA-04 Investigate opportunities for restoring historic runs of coho salmon. (DFG, Recovery Strategy for California Coho Salmon (February 2004) at p. 8.45 ("Recovery Strategy").)

BM-LA-05 Commit ongoing resources and support of stewardship in the basin to include riparian enhancement and protection, sediment source reduction, habitat typing and surveying, coho salmon surveys and counts, water conservation, outreach and education, effectiveness monitoring of projects, and planning and assessment of potential restoration projects to benefit coho salmon. (*Ibid.*).

BM-LA-11 Throughout the Lagunitas Creek drainage, work with private landowners to encourage biotechnical bank stabilization, riparian protections, woody debris retention, and timing of water withdrawals to help protect coho salmon. (*Ibid.*).

The project will also further the following recommendation of DFG's 1996 "Steelhead Restoration and Management Plan for California":

Watershed, channel, and riparian restoration efforts on Lagunitas Creek and tributaries should be accelerated. (Steelhead Restoration and Management Plan at p.155).

The County is well qualified to oversee project implementation. The County oversaw preparation of the Plan and has committed substantial resources to developing a long-term resource enhancement program for its watersheds, including the establishment of a Public Works Program specifically dedicated to fish passage improvement. In 2004, the County prepared a draft Watershed Management Plan focused on the watersheds of West Marin to support the policies and programs developed during the updates of the Marin Countywide Plan and Local Coastal Program and to guide County staff, resource managers and policy makers, and community organizations in their protection and restoration efforts. In addition, the County has established relationships with U.C Cooperative Extension and the Planning Group in order to carry out the project without compromising landowner concerns about inviting regulators onto their property and consequent desires for privacy and confidentiality.

Site Description: The San Geronimo Creek Watershed, located in unincorporated west Marin County, is the last large un-dammed headwaters of the Lagunitas Watershed (Kent Lake and Nicasio Reservoir eliminated the other two major headwaters areas in the last century). These 9 square-miles of habitat represents less than 9% of the total 102 square-miles of the entire Lagunitas Watershed, but provide upwards of one-third of the coho juvenile rearing habitat. San Geronimo Valley floor is relatively long (6 miles) and narrow (averaging 1/3 of a mile), extending from White's Hill on the east, which is the watershed divide, to the western end of the Valley where it constricts to a narrow canyon near the entrance to Samuel P. Taylor State Park. San Geronimo Creek flows through the length of the Valley before it joins Lagunitas Creek (at Shafter Bridge) and flows out to Tomales Bay. (Exhibit 1). Eleven tributary streams, flowing a combined distance of eighteen miles, start in narrow, steep canyons and flow into San Geronimo Creek through the Valley. The three primary tributaries of San Geronimo Creek are Woodacre, Larsen, and Arroyo Creeks.

The San Geronimo Creek watershed is characterized by diverse vegetative communities and semi-rural residential communities (Exhibit 1). Vegetation on the valley floor consists of riparian vegetation (alders and willows), grasslands, and oak-bay forests. The south-facing slopes are mainly grassy pastures with intermittent stands of small oaks and brush in the ravines. In contrast, the north-facing slopes are steep and densely forested with Douglas fir, maple, madrone, bay, and oak. The San Geronimo Valley contains the villages of Woodacre, San Geronimo, Forest Knolls, and Lagunitas, which comprise 1,336 total acres. The Valley also contains over 5,000 acres of publicly owned open space. San Geronimo Valley has approximately 3,500 residents living on 1,500 parcels. Approximately 900 additional parcels have remained undeveloped, yet face increasing pressure as previous obstacles to development have been erased. For example, the inability to use traditional septic systems made some of these 900 parcels undevelopable. New technology such as "mound" septic systems now allows them to be developed. Furthermore, new landowners are building new larger houses to replace existing houses, many of which were originally built as part-time summer cabins. This ongoing development threatens habitat values for coho, steelhead, and other species, as discussed above. Lagunitas Creek has been declared impaired due to excessive sediment, pathogens and nutrients under Section 303(d) of the Clean Water Act by the San Francisco Regional Water Quality

Control Board (“RWQCB”). The San Geronimo Valley is a major source of this sediment, threatening the Lagunitas Creek Watershed salmonid population, as well as the Lagunitas Creek population of the federally endangered California freshwater shrimp. Lagunitas Creek flows into Tomales Bay, which has also been declared impaired under Section 303(d) of the Clean Water Act by the RWQCB for excessive sediment, nutrients, pathogens, and mercury. Implementation of the Plan will contribute to the health of Lagunitas Creek and Tomales Bay by improving downstream water quality.

Project History: As noted above, the project is the first phase in the implementation of the San Geronimo Creek Watershed Salmon Enhancement Plan, whose preparation was partially funded by a Conservancy grant in 2008. In recognition of the need for the Plan and to ensure that incremental impacts do not undermine its purpose, the Marin County Board of Supervisors unanimously adopted an urgency ordinance on February 12, 2008 that enacted a building permit moratorium on currently unapproved new construction inside the County's mandated Stream Conservation Area within the San Geronimo Valley. The ordinance stated that “It is urgent and necessary to perform the needed and planned studies to develop appropriate parameters of any future development before such development is allowed to occur so that appropriate protection of the habitat and environment based upon the particular stream geomorphology applicable to the area can determine where the development may occur with the least impact upon the fish populations.” The final Plan was accepted by the County Board of Supervisors on February 9, 2010, after an extensive public process. The moratorium ended on February 11, 2010 under the terms of the ordinance. In addition to the voluntary work with landowners described above, the County is taking other steps to implement recommendations of the Plan. For example, in keeping with the Plan’s recommendations, the County is currently in the process of revising a Riparian Vegetation Protection ordinance (Exhibit 3) which will increase protection of streamside vegetation in the San Geronimo Valley and will serve as a model for other streamside areas in the County.

The project builds on multiple habitat enhancement projects in the San Geronimo Creek watershed. These projects include the County's fish passage improvement program, and efforts to reduce fine sediment by the Marin County Open Space District, the Marin County Fire Department, and the Marin Municipal Water District. The Marin Resource Conservation District, Trout Unlimited, Wilderness Way, San Geronimo Valley Planning Group, Tomales Bay Association and others are also actively involved in restoration efforts. Projects in the watershed included repairing 35 gullies ranging from 2 to 20 feet deep and approximately 20 miles of unsurfaced roads, as well as stabilizing eight streambank erosion sites.

The Conservancy has supported a number of projects to restore coho salmon and steelhead in the Lagunitas Creek watershed, including a number of fish passage improvement projects. The Conservancy granted \$35,000 to the Urban Creeks Council on August 2, 2001 to design a fish passage improvement project at the Woodacre Creek Improvement Club. With assistance from the County, that project has now been built. The Conservancy granted \$65,000 to the County of Marin in March 2002 to conduct an assessment of barriers obstructing passage of anadromous fish within the coastal watersheds of Marin County. In June 2005, the Conservancy disbursed \$196,500 to the County of Marin to fund a Marin Fish Passage Improvement Program for engineering and design of seven high priority fish passage improvement projects in the Woodacre and Redwood creek watersheds. At its May 18, 2005 meeting, the Conservancy authorized \$225,000 to the Point Reyes National Seashore Association to conduct a similar fish

passage improvement program for nearby Bear Valley Creek, also a tributary of Lagunitas Creek. Two of seven barriers in that watershed have been repaired, plans for five are complete, and the County is now examining their role in ameliorating a county-owned barrier at the downstream end of this watershed.

At its September 20, 2007 meeting, the Conservancy authorized \$1,500,000 to the Point Reyes National Seashore Association to restore 550 acres of tidal wetlands at the mouth of Lagunitas Creek. These restored Giacomini wetlands will provide important overwintering refugia and outmigration feeding habitat for salmon.

County staff initially contacted Conservancy staff in June 2010 regarding the proposed project. Conservancy staff has worked with the County since that time to assess the project and determine its suitability for Conservancy funding.

PROJECT FINANCING

Coastal Conservancy	\$98,335
County of Marin	\$50,437
California Department of Fish and Game*	\$127,678
Total Project Costs	\$276,450

*CDFG funding is not committed at this time, but indications are that the project is highly likely to receive CDFG funds. The County has committed to obtaining funds elsewhere if CDFG funds are not forthcoming.

The expected source of Conservancy funds for this project is the FY 08/09 appropriation to the Conservancy from the 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 funds for projects that will carry out the Conservancy's statutory mission (Public Resources Code Section: 75060(b)). Consistency of the project with the Conservancy's statutory mission is discussed below in "Consistency with Conservancy's Enabling Legislation." The County of Marin is providing matching funds for planning personnel and a coordinator for the San Geronimo Valley Planning Group. Anticipated funds from the California Department of Fish and Game will help fund expenses associated with the technical teams' assessments and development of restoration designs. Consistent with the Conservancy's prioritization requirements for using Proposition 84 funds, the project will provide a significant non-state match, as described above.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

The proposed project is undertaken pursuant to Chapter 6 of Division 21 of the Public Resources Code (§§ 31251-31270), as follows:

Pursuant to Section 31251, the Conservancy may award grants to public agencies for the purpose of enhancement of coastal resources that have suffered loss of natural values because of human-induced events. Consistent with this section, the proposed authorization provides funds to the County to plan for the enhancement of natural values in the project area that have suffered because of development activities, particularly residential development, in the San Geronimo Creek watershed.

Under Section 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.” Salmon populations are known to travel many miles upstream of the coastal zone boundary in order to fulfill their life history patterns. Indeed, salmon depend on 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, funding must be provided to enhance salmonid habitat both inside and outside the coastal zone. Consistent with Section 31251.2(b), DFG has reviewed and supports the proposed project, as evidenced by their letter of support for the project (Exhibit 4).

Pursuant to Section 31252, all areas proposed for resource enhancement should be identified in a certified local coastal plan or program as requiring public action to resolve existing or potential resource problems. San Geronimo Creek is a tributary of Lagunitas creek, a coastal stream identified in Unit II of the Marin County Local Coastal Program (“LCP”) and is therefore subject to the protections, goals, and objectives afforded by the LCP, as discussed in the “Consistency with Local Coastal Program Policies” section below. In particular, the LCP cites Section 30231 of the Coastal Act which establishes that “the biological productivity and the quality of coastal waters...shall be maintained and, where feasible, restored....” (Marin County, Local Coastal Plan, Unit II (December 9, 1980) at p. 73).

Pursuant to Section 31253, “[the] Conservancy may provide up to the total of the cost of any coastal resource enhancement project, including the state or local share of federally supported projects....” after an assessment of funding generally available for coastal resource enhancement projects, the fiscal resources of the applicant and the urgency of the project relative to other eligible coastal resource enhancement projects and other factors prescribed by the Conservancy. The proposed contribution by the Conservancy was determined based on application of priority criteria, as discussed below, and after taking into account other available resources and the matching contributions to the project by other funding sources.

Pursuant to Section 31257, “the Conservancy may fund up to three hundred thousand dollars (\$300,000) of the cost of preparing coastal resource enhancement plans.” The proposed contribution by the Conservancy is not to exceed ninety eight thousand three hundred and thirty five dollars (\$98,335).

Consistent with Section 31111, the Conservancy “may fund and undertake plans and feasibility studies, and may award grants to public agencies” for the purposes of restoring coastal habitat and undertaking other functions prescribed in Division 21. Consistent with this section, the proposed project provides funds to the County to conduct landowner education and assist in restoration of San Geronimo Creek.

**CONSISTENCY WITH CONSERVANCY’S 2007
STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):**

Consistent with **Goal 5, Objective A** of the Conservancy’s 2007 Strategic Plan, the proposed project will result in a plan to enhance a coastal stream corridor.

Consistent with **Goal 6, Objective E** of the Conservancy's 2007 Strategic Plan, the proposed project will result in a plan to improve water quality to benefit coastal ocean resources.

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 June 4, 2009, 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 project enjoys broad public support. Supporters include NOAA Fisheries, SPAWN, Marin County supervisor Steve Kinsey, the RWQCB, and the DFG. Support letters are included in Exhibit 4.
4. **Location:** The San Geronimo Creek Watershed is located outside the coastal zone, but it provides critical habitat to maintain and restore salmon and steelhead populations.
5. **Need:** The proposed authorization would provide a much-needed addition to County funds, and is necessary to allow the enhancement planning process to go forward.
6. **Greater-than-local interest:** Lagunitas Creek, to which San Geronimo Creek is a tributary, is identified as a rank 5 (highest priority) recovery site in the 2004 Recovery Strategy for California Coho Salmon. Lagunitas Creek is also identified as an important watershed for steelhead in DFG's 1996 "Steelhead Restoration and Management Plan for California." Consistency of the project with these plans is described in the "Project Summary" section above.
7. **Sea level rise vulnerability:** The lowest elevations in the project area are approximately 200 feet above sea level, and are therefore not directly vulnerable to sea level rise under current projections.

Additional Criteria

8. **Urgency:** Coho salmon are currently at 6 to 15% 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, enhancement projects with a high potential for recovering local populations of coho salmon are a high priority for the State. The urgent need for this project in particular is underscored by the large number of San Geronimo Valley landowners requesting technical assistance. If no such assistance is forthcoming, landowners' enthusiastic and voluntary participation is likely to be significantly reduced.
9. **Resolution of more than one issue:** In addition to planning for the enhancement of riparian habitat for salmon, steelhead, and other native species, the project will address public health

concerns related to failed septic systems and water quality concerns related to stormwater runoff and fine sediment inputs in the San Geronimo Valley.

10. **Leverage:** See the “Project Financing” section above.
11. **Conflict resolution:** The building permit moratorium in San Geronimo Valley, which concluded in February 2010, has resulted in conflict between private landowners, the County, and environmental groups. The project would further the resolution of this conflict by facilitating voluntary habitat enhancement efforts by landowners.
12. **Innovation:** The project takes an innovative approach to encouraging voluntary habitat enhancement efforts by landowners, while addressing landowners’ privacy concerns through the use of a third party technical team.
13. **Readiness:** The County has formulated this project in partnership with the San Geronimo Valley Planning Group and the UC Cooperative Extension advisors who will serve on the technical team. The project team is assembled and ready to move forward.
14. **Realization of prior Conservancy goals:** “See “Project History” above.”
15. **Return to Conservancy:** See the “Project Financing” section above.
16. **Cooperation:** The volunteer San Geronimo Valley Planning Group will play an important role in the project, as will the many landowners who are requesting technical assistance with habitat enhancement on their properties.
17. **Vulnerability from climate change impacts other than sea level rise:** Proposed habitat enhancement planning will help improve the resiliency of the project area to increased flooding and storm events by reducing the number of structures near the creek and laying back its banks, increasing bank stability and the capacity of the floodplain to store floodwaters.
18. **Minimization of greenhouse gas emissions:** The project involves planning and design, and thus is not expected to generate significant greenhouse gas emissions. Projects designed through this grant will include measures to minimize emissions in future construction phases.

CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:

The project will result in enhancement planning for a portion of the Lagunitas Creek watershed. The project would facilitate the enhancement of the wildlife habitat values of the watershed. The proposed project is therefore consistent with the Coastal Act, section 30231 which states “(t)he biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained, and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of groundwater supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.” (Pub. Res. Code § 30231). By recommending and designing appropriate land use and restoration practices, the project will facilitate the protection and enhancement of the aquatic and riparian habitat of San Geronimo creek for the benefit of federally listed salmonids. The proposed project is therefore consistent with this section.

Units I and II of the Marin County LCP identify Marin's numerous coastal zone streams and creeks as sensitive habitats for many species of birds and fish. Lagunitas Creek, of which San Geronimo is a tributary, contains runs of coho and steelhead specifically highlighted. (See LCP, Unit II at pg. 65).

Freshwater inflows, sedimentation, water pollution, and protection of riparian habitats are identified as the key concerns for protecting the aquatic resources of the Lagunitas Creek watershed, and the Tomales Bay ecosystem into which Lagunitas flows. (LCP Unit II at pp. 66-68). Because the project will facilitate enhancement and restoration of salmonid habitat in a portion of the Lagunitas Creek watershed, the proposed project is entirely consistent with the LCP policies.

COMPLIANCE WITH CEQA:

The project involves only data gathering, planning, and feasibility analyses for possible future actions that have not yet been authorized or approved by the Conservancy or another agency and is thus statutorily exempt from the California Environmental Quality Act (“CEQA”) pursuant to 14 California Code of Regulations Section 15262. Planning carried out as part of the project will, however, consider environmental factors, as required by Section 15262. In addition, data collection and resource evaluation activities conducted for this project are categorically exempt from CEQA pursuant to 14 California Code of Regulations Section 15306. This categorical exemption applies to activities that consist of basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource. These activities may lead to an action which a public agency has not yet approved, adopted, or funded.

Staff will file a Notice of Exemption upon Conservancy approval.