

COASTAL CONSERVANCY

Staff Recommendation  
June 5, 2008

**LOWER CARMEL RIVER FLOODPLAIN RESTORATION --  
PROJECT PLANNING**

File No. 08-036-01  
Project Manager: Trish Chapman

**RECOMMENDED ACTION:** Authorization to disburse up to \$250,000 to the Big Sur Land Trust for preparation of planning documents for the Lower Carmel River Floodplain Restoration Project in Monterey County.

**LOCATION:** Lower Carmel River, Monterey County (Exhibit 1a)

**PROGRAM CATEGORY:** Integrated Coastal and Marine Resources

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**EXHIBITS**

Exhibit 1: [Project Location and Site Map](#)

Exhibit 2: [Conceptual Plan](#)

Exhibit 3: [Site Photos](#)

Exhibit 4: [Letters of Support](#)

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**RESOLUTION AND FINDINGS:**

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31111 & 31220 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes the disbursement of up to two hundred fifty thousand dollars (\$250,000) to the Big Sur Land Trust (BSLT) for preparation of planning documents, including project designs and environmental review documents, for the Lower Carmel River Floodplain Restoration project, subject to the condition that prior to the disbursement of funds, the Executive Officer of the Conservancy shall approve in writing a work program, including budget and schedule, and any contractors to be employed for these tasks.”

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 5.5 of Division 21 of the Public Resources Code, regarding Integrated Coastal and Marine Resources Protection.
  3. The proposed project is consistent with local watershed management plans and water quality control plans.
  4. BSLT is a nonprofit organization existing under Section 501(c)(3) of the U.S. Internal Revenue code, whose purposes are consistent with Division 21 of the Public Resources Code.”
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### **PROJECT SUMMARY:**

The proposed project would authorize a \$250,000 grant to the Big Sur Land Trust (BSLT) to prepare design plans and environmental review documents for the Lower Carmel River Floodplain Restoration project. The Floodplain Restoration project is a multi-objective project that was identified as the number one priority in the Integrated Regional Water Management Plan (IRWMP) for the Monterey Peninsula, Carmel Bay, and South Monterey Bay. The project is also part of the Carmel River Parkway Plan.

The Lower Carmel River Floodplain Restoration Project will restore natural floodplain function to 90 acres of the Odello East property owned by the Big Sur Land Trust and the Eastwood family (Exhibit 1b). The project will also establish an agricultural preserve on 36-acres of the property. The overall environmental goal is to restore natural ecological function to the Carmel River’s lower floodplain/estuary system. Key objectives of the project include:

- Increase habitat: The project will restore approximately 90 acres of riparian and wetland habitat on the historic floodplain, providing important habitat for sensitive species including steelhead trout, California red-legged frogs, and western pond turtles. A small 2-acre wetland will be constructed at the east edge of the project site, while off channel wetlands will naturally re-establish throughout the floodplain area.
- Recharge groundwater and base flows to the Carmel River: The project will address one of the watershed’s most critical environmental problems by enabling increased recharge of groundwater.
- Reduce flood flows in urban areas: The project will significantly reduce flood flows on the north side of the river, which experiences significant flooding with storms as frequent as the 10-year event.
- Reconnect the east and west sides of the floodplain: A key component of the Lower Carmel River Floodplain Restoration Project is the construction of a causeway for Highway 1 as it crosses over the floodplain. The causeway will allow flood flows to move directly from the eastern to the western floodplain. The causeway will also prevent overtopping of Highway 1 during smaller flood events (10 year).
- Improve water quality: The project will provide additional storage and filtration for sediment and nutrients through a functioning floodplain and associated riparian habitat and wetlands, resulting in improved water quality entering the Carmel River Lagoon.

The project involves removal of a half-mile section of the south bank levee to re-establish the connection between the river and its floodplain (Exhibit 2). One hundred thirty thousand (130,000) cubic yards of imported fill that are stacked on the southern floodplain (referred to as the “Blister”) will also be removed. As discussed above, a 500-foot causeway will be constructed for Highway 1 to connect the east and west sides of the floodplain. This causeway will significantly relieve the pinch point caused by the Highway 1 bridge during flood flows, thereby reducing flooding on the east side of the highway. Hydraulic modeling conducted by BSLT has demonstrated that this configuration will reduce flood elevations on the northeast side of the river and also provide scour for the larger lagoon habitat constructed in 2004. The project will not significantly improve flooding on the west side of the highway, nor will it exacerbate it. The floodplain will be graded to create secondary channels, seasonal wetland areas, and other floodplain features. Given the dynamic nature of a functioning floodplain, these habitats are expected to change over time. The southern margin of BSLT’s property will be elevated to create a 36-acre agricultural preserve.

The proposed project is a cooperative effort of BSLT, Monterey County, and the Monterey Peninsula Water Management District (MPWMD), and is being developed in close coordination with the California Department of Transportation (Caltrans). BSLT will complete the design phase of the project; however, it is expected that the County will lead the construction phase. In recent years, BSLT has made the Carmel River a major focus of its efforts. BSLT has thirty years experience undertaking conservation projects.

**Site Description:** The project area, known as the “Odello East” property is located at the downstream end of the Carmel River watershed, approximately one mile from its mouth, and immediately east of Highway 1. The property is currently used for organic agriculture (Exhibits 1b & 3). However, the land was once a functioning floodplain directly connected to the coastal waters of the Carmel River Lagoon. It supported a rich interconnected ecosystem of riparian and floodplain habitat, small seasonal wetlands, brackish lagoon, all connecting to a biologically diverse estuarine environment. Sometime prior to the 1930s, levees were built by the farmer-landowner and the entire expanse of land, including the Carmel River Lagoon area and Odello East, was put into agricultural production. The construction of Highway 1 further diminished ecological functioning of the system by placing a physical barrier between the lagoon and the larger floodplain area.

The entire Carmel River has been significantly influenced by human activity through the lower end of the valley, most notably through the construction of levees along both banks of the main channel. These levees, which run from near the mouth to approximately 1.2 miles upstream, have largely confined the small and moderate flow events to the main channel and limited the ability of the channel to interact with its adjacent floodplain.

The Carmel River watershed, 255 square miles in size, is located in the northern Santa Lucia Mountains of Monterey County. (See Exhibit 1a). In the upper watershed, the river and its tributaries flow in steep-sided canyons. For the last 15 miles, the river flows across the relatively flat Carmel Valley floor to the Pacific Ocean. The upper watershed is primarily public and private forest, grazing and agricultural lands. The lower valley contains considerable residential development along the riverbanks and in the floodplain, beginning at the Carmel Valley Village 12 miles upstream and continuing toward the ocean.

Although the Carmel River is regulated by Los Padres Dam in its headwaters, it is still subject to very large seasonal and annual variations in flow. The Carmel stream gage often records no flow

during the summer months, while exceptionally wet winter periods can see very large flood flows. Carmel Valley has experienced significant floods in the past century and a half, and has the distinction of being one the highest repetitive loss areas in the federal flood protection program. The most recent floods in 1995 and 1998 caused millions of dollars in damage and destroyed the Highway 1 bridge accessing the Big Sur coast, causing a closure of the highway for six months and stranding many people in the area.

**Project History:** In 1988, the Coastal Conservancy provided \$35,000 to the Carmel River Steelhead Association to help fund the Carmel River Lagoon Enhancement Plan. The plan addressed the lagoon and lower floodplain west and immediately east of Highway 1. The plan was completed in 1992 and contained recommendations for expanding and enhancing steelhead habitat, removing barriers between the river and the floodplain, and restoring native vegetation. Initial Conservancy efforts to implement the plan focused on areas west of the Highway and ultimately resulted in the Conservancy providing a \$4 million grant to the California State Parks for restoration of Carmel Lagoon. (See Exhibit 1b).

In 1998, the Conservancy provided a \$71,500 grant to the Big Sur Land Trust to develop a restoration concept for the floodplain east of the highway. This plan developed the initial concept for removing the south bank levee and reconnecting the Odello East floodplain with river. (See Exhibit 2). It also identified the need to create an additional connection under Highway 1 in order to be able to drain flood waters. The concept was further developed in a flood control analysis completed by the County of Monterey in 2002, but this study did not include sufficient hydrologic modeling to confirm the project’s feasibility or benefits. In 2007, BSLT initiated a hydrologic analysis of project alternatives in order to arrive at the current project description.

BSLT approached Conservancy staff regarding future funding for the project in 2007 and submitted a formal request for planning funds in February 2008.

**PROJECT FINANCING:**

Coastal Conservancy	\$250,000
U.S. Environmental Protection Agency	200,000
County of Monterey (requested)	75,000
Big Sur Land Trust	<u>65,000</u>
<b>Total Project Cost</b>	<b>\$590,000</b>

The expected source for the Conservancy funds for this project is an 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 Conservancy’s use of these funds for the purposes of protecting beaches, bays, coastal waters and coastal watersheds, and the natural habitat values of coastal waters and lands. Sections 75060(e) and 75072.5 of the Public Resources Code specifically allocate Conservancy funding for Monterey Bay and its watersheds, including the Carmel River watershed. The proposed project will restore and enhance riparian and aquatic habitat, restore river function, and improve water quality in the downstream lagoon and ocean. The proposed project is consistent with the Conservancy’s enabling legislation, as discussed in the “Consistency with Conservancy’s Enabling Legislation” section below. The proposed authorization is thus consistent with the funding requirements of Proposition 84.

Proposition 84 also requires that for projects that restore natural resources, the Conservancy give priority to projects that meet one or more of the criteria specified in Section 75071. The proposed restoration project satisfies the following specified criteria: (b) Watershed Protection – The project will contribute to long-term protection of and improvement to the water and biological quality of the Carmel River, a "priority watershed" as identified by the Resources Agency; and (e) Non-State Matching Funds – BSLT will provide matching funds from several non-state sources as listed above.

In addition, BSLT has already spent approximately \$129,000 on preliminary feasibility studies for the project. This included funding from private foundations, the County, the Planning and Conservation League Foundation, and a Proposition 50 IRWMP planning grant.

**CONSISTENCY WITH CONSERVANCY’S ENABLING LEGISLATION:**

The proposed project would be undertaken pursuant to the Conservancy’s enabling legislation, Division 21 of the Public Resources Code, in particular Chapter 5.5 (Public Resources Code Sections 31220), regarding integrated coastal and marine resources protection.

Section 31220(a) of the PRC authorizes the Conservancy to undertake coastal watershed projects that meet one or more criteria of Section 31220(b). Consistent with Section 31220(b), the proposed project will achieve the following objectives: (b)(2) protect and restore fish and wildlife habitat within coastal and marine waters and coastal watersheds; and (b)(6) acquire, protect, and restore coastal wetlands, riparian areas, floodplains, and other sensitive watershed lands, including watershed lands draining to sensitive coastal or marine areas. Consistent with Section 31220(a), Conservancy staff has consulted with the State Water Quality Control Board in developing this project to ensure consistency with the Clean Beaches Program.

As Section 31220(c) requires, the proposed project is consistent with local and state watershed plans. This is discussed in detail below under “Consistency With Local Watershed Management Plan/State Water Quality Control Plan.” Section 31220(c) also requires that projects include a monitoring and evaluation component. Monitoring and evaluation will be integrated into the design of the floodplain restoration project.

Section 31111 gives the Conservancy the authority to fund plans and feasibility studies in order to implement the purposes of Division 21.

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

Consistent with **Goal 5 Objective A**, the proposed project will develop plans for restoring 90 acres of coastal floodplain with riparian and wetland habitat.

Consistent with **Goal 6 Objective A**, the proposed project will develop a plan for restoring a portion of a coastal watershed and is also part of the Carmel River Parkway Plan.

**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 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 proposed project enjoys broad support, including the County of Monterey, Monterey County Water Resources Agency (MCWRA), MPWMD, Caltrans, NOAA Fisheries, California State Parks, Monterey County Service Area 50, Transportation Agency of Monterey County (TAMC), Carmel River Steelhead Association (CRSA), Carmel River Watershed Conservancy (CRWC), and the Monterey Peninsula Regional Park District. See also support letters in Exhibit 4.
4. **Location:** The proposed project would be located within the coastal zone of Monterey County.
5. **Need:** Conservancy funding is needed to close the funding gap for completing the project design and environmental compliance. There are several potential sources of State, Federal, and private funding for project implementation, but in order to access those funds, BSLT must complete the project designs and environmental review. Approximately \$720,000 for implementation has already been secured.
6. **Greater-than-local interest:** The proposed project will improve habitat for steelhead trout and California red-legged frogs, both of which are listed as threatened under the Federal Endangered Species Act.

**Additional Criteria**

7. **Leverage:** See the "Project Financing" section above.
8. **Readiness:** BSLT is ready to commence the project planning once funding has been secured.
9. **Realization of prior Conservancy goals:** See "Project History" above.
10. **Cooperation:** The Floodplain Restoration project is a cooperative effort of several organizations including Big Sur Land Trust, the Monterey Peninsula Water Management District, Monterey County Service Area 50, California State Parks, NOAA Fisheries, Transportation Agency of Monterey County, Monterey County Department of Public Works, Caltrans, Monterey County Water Resources Agency, Carmel River Steelhead Association, Carmel River Watershed Conservancy, and Carmel Development Corporation.

**CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:**

The Carmel Area Land Use Plan is the adopted Local Coastal Program (LCP) for this portion of Monterey County. Policy 2.3.2 for Environmentally Sensitive Habitat states that “the environmentally sensitive habitats of the Carmel Coastal Segment are unique, limited and fragile resources of statewide significance, important to the enrichment of present and future generations of County residents and visitors; accordingly, they shall be protected, maintained and, where possible, enhanced and restored.” The definition in the LCP of environmentally sensitive habitats includes all wetland and riparian habitat. The proposed project will restore and enhance wetland and riparian habitat within the floodplain of the Carmel River. In Section 2.7.4 regarding Flood Hazards, Policy 3 states that “development of a flood-plain management program for the lower Carmel River Valley shall emphasize the use of nonstructural methods of flood protection which do not involve substantial alterations of the river and shall seek to preserve the river's natural plant and wildlife habitat and aesthetic values.” The proposed restoration project would provide increased flood protection through a nonstructural approach that will provide significant benefit’s to the river plant and wildlife habitat, as well as aesthetic values. In these ways, the project is consistent with the LCP policies.

**CONSISTENCY WITH LOCAL WATERSHED MANAGEMENT PLAN/  
STATE WATER QUALITY CONTROL PLAN:**

Projects undertaken pursuant to Chapter 5.5 of Public Resources Code Division 21 (Section 31220(c)) must be consistent with the following, if available and relevant: Integrated Watershed Management Programs (IWMP); local watershed management plans; and with water quality control plans, adopted by the state and regional water boards. The Floodplain Restoration project was identified as the number one priority in the Integrated Regional Water Management Plan (IRWMP) for the Monterey Peninsula, Carmel Bay, and South Monterey Bay (November 2007).

The Water Quality Control Plan for the Central Coastal Basin adopted by the Regional Water Quality Control Board designates several beneficial use objectives for the Carmel River. The proposed project will restore and enhance aquatic, riparian and wetland habitat, thereby furthering the following designated beneficial uses for the river: cold fresh water habitat, wildlife habitat; rare, threatened or endangered species; preservation of biological habitats of special significance; migration of aquatic organisms; and spawning habitat.

In 2004, the Carmel River Watershed Conservancy adopted an Assessment and Action Plan for the Carmel River. The actions recommended in this plan were reviewed and prioritized by the Carmel River Technical Advisory Committee (C-TAC) in 2006. One of the priorities identified by the C-TAC was to reduce the risk of flood damage through multi-objective flood control projects, including floodplain restoration.

**COMPLIANCE WITH CEQA:**

The proposed authorization is statutorily exempt from the California Environmental Quality Act (CEQA), pursuant to 14 Cal. Code of Regulations Section 15262. Consistent with §15262, the authorization will involve only preparation of planning studies and environmental documents for

possible future actions which the Conservancy has not approved, adopted, or funded. Consistent with this section, the studies will consider environmental factors. Upon approval, staff will file a Notice of Exemption for this project.