

COASTAL CONSERVANCY

Staff Recommendation

December 4, 2008

**BUENA VISTA LAGOON STATE ECOLOGICAL RESERVE  
PRELIMINARY ENGINEERING AND ENVIRONMENTAL REVIEW**

File No. 08-144

Project Manager: Deborah Ruddock

**RECOMMENDED ACTION:** Authorization to disburse up to \$600,000 to prepare preliminary engineering and environmental documents for restoration of Buena Vista Lagoon State Ecological Reserve.

**LOCATION:** Cities of Carlsbad and Oceanside in northern San Diego County (Exhibit 1).

**PROGRAM CATEGORY:** Resource Enhancement.

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**EXHIBITS**

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

Exhibit 2: [Photos](#)

Exhibit 3: [Department of Fish and Game Letter](#)

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 31251-31270 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes the disbursement of an amount not to exceed six hundred thousand dollars (\$600,000) to prepare preliminary engineering design and environmental documents for restoration of Buena Vista Lagoon.”

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 Chapter 6 of Division 21 of the Public Resources Code Sections 31251-31270.

2. The proposed project is consistent with the Project Selection Criteria and Guidelines adopted by the Conservancy on January 24, 2001.”

**PROJECT SUMMARY:**

Staff recommends the Conservancy authorize disbursement of up to \$600,000 in additional financial assistance for Buena Vista Lagoon State Ecological Reserve restoration project planning. The reserve, located in the cities of Carlsbad and Oceanside in northern San Diego County (Exhibits 1 and 2), is managed by the California Department of Fish and Game (“Department”), which requests the assistance (Exhibit 3).

A Conservancy authorization of \$500,000 in June 2006 paid for digital, multi-layer GIS base maps of the lagoon; development of complex models and analyses of lagoon hydrology under different restoration scenarios; a projected sea level rise report; geotechnical and sediment studies; preliminary grading and habitat plans; a wetlands erosion protection plan; and preparation and filing of a Notice of Intent/Notice of Preparation (NOP/NOI) to prepare an environmental document and associated public meetings.

The proposed authorization, along with \$500,000 from the National Fish and Wildlife Foundation (NFWF), would cover the costs of contracts for preparation of several preliminary engineering design studies needed to complete environmental review of the lagoon restoration project, as well as preparation of the Environmental Impact Report/Environmental Impact Statement (EIR/EIS) and associated public outreach activities. Additional engineering tasks will include water quality modeling; tidal inlet design; investigation of public access issues and existing infrastructure impacting the lagoon (including the Interstate 5, Coastal Highway and Santa Fe railroad lagoon crossings); additional restoration alternatives development; and development of visual simulations.

Budgets developed for Buena Vista Lagoon restoration planning are consistent with those of other major coastal wetlands restoration projects in the area, notably San Dieguito Lagoon, Batiquitos Lagoon, and San Elijo Lagoon.

It is important that this project continue to move forward over the next couple of years so that restoration implementation can be coordinated with the planned expansion of Interstate 5 and regional rail service in northern San Diego County. Highway and railroad bridges bisect the lagoon. The funding for the Interstate 5 widening project will come from a half-cent sales tax for local transportation projects called TransNet, which also includes \$850,000,000 for an environmental mitigation and enhancement program. This environmental mitigation program will fund the acquisition, restoration, and maintenance of many open spaces and wetlands throughout San Diego County. This project has been identified a potential project for the TransNet funding, although there is no formal commitment at this time.

The proposed project is supported by the U.S. Fish and Wildlife Service, Regional Water Quality Control Board, NOAA, the cities of Carlsbad and Oceanside, Buena Vista Audubon, and the Buena Vista Lagoon Foundation (Exhibit 4).

**Site Description:** Buena Vista Lagoon lies astride the border of the cities of Oceanside and Carlsbad, encompassing approximately 220 acres. The 20-square-mile Buena Vista Watershed stretches approximately 10.6 miles inland along Buena Vista Creek, the main tributary stream, to include the Cities of Oceanside, Carlsbad, and Vista.

The lagoon supports several different vegetation communities. The open water area (120+ acres) supports Widgeon grass, pondweed species, and arrow grass. The lagoon edges are dominated by narrow and broad-leaf cattails, spiny rush, and bulrush. About 14 acres are un-vegetated seasonal sand/mud flats. An equal area between the uplands and the reeds supports pickleweed, marsh rosemary, and alkali weed. Cattails and bulrush are a conspicuous plant community that presently occupies approximately 45 acres of the lagoon.

The historic acreage of the lagoon has been estimated at over 650 acres. The elongated lagoon formed as a drowned river valley since the last ice age. Urban development has dramatically affected the lagoon system. Railroad and road crossings—the Santa Fe Railroad trestle, the Coast Highway/Carlsbad Boulevard crossing, Interstate 5 crossing, and the Jefferson Street crossing—have divided the lagoon into four basins. As a result of the constrictions in flow between them, these basins exhibit varying salinity regimes and sedimentation rates. Additional impacts to the lagoon were created by construction of Highway 78 along the north shore, and extensive urban development adjacent to the lagoon and within its watershed within all three cities. The construction of the St. Malo residential development along the beachfront significantly modified the nature of the lagoon's outlet to the sea. Historically, when a beach berm formed at the lagoon's outlet, water backed up by the berm and threatened to flood the subdivision's homes. The berm would then be artificially breached. Local residents also desired an open water surface, and over time built a series of structures to maintain a minimum water level in the lagoon. The existing concrete weir and reinforced channel were constructed in 1972, and there has not been any low-elevation outflow since. The average water depth is about three feet in the west and central portions of the lagoon, and 1.5 feet in the eastern basin. The bottom consists of a saturated soft mud layer averaging 3.5 feet in thickness, resting atop a more resistive floor of sand, silts, and clays.

Despite fluctuations in the lagoon's hydrology, it still supports a wide diversity of wildlife. Migratory shorebirds and waterfowl, including clapper rails, brown pelicans, least terns, Belding's savannah sparrows, Caspian terns, herons, egrets, and cormorants use the lagoon, feeding on the small fish its waters support. Continuing deterioration of the lagoon could destroy these resources.

**Project History:** The problem of accelerated sedimentation of Buena Vista Lagoon became evident as early as the 1970s. In 1982, the Conservancy began a sediment control program in the watershed. The products of this effort included a review of sediment sources, a preliminary plan for sediment control measures, development of a model erosion control ordinance, and a proposal to establish a Joint Powers Committee to coordinate activities in the watershed. The Joint Powers Committee (JPC) was established by the cities of Carlsbad, Oceanside, and Vista in 1983, and the model erosion control ordinance was adopted by all three jurisdictions in 1984. In 1983, a \$1 million project administered by the City of Carlsbad excavated excess sediment in the extreme eastern end of the lagoon. The Conservancy completed a more detailed engineering analysis of watershed sediment control structures in September 1985. In 1987, the Conservancy approved the Buena Vista Lagoon Watershed Sediment Control Plan and authorized funding for

construction of detention basins in the City of Vista. Additional funding was approved for engineering design, and biological, land use, zoning, and land ownership surveys of the Buena Vista Creek project area. As a result, three detention basins have been built in the upper watershed. Additionally, Buena Vista Creek in the City of Vista has been stabilized with an improved and/or vegetated creek channel with drop structures to reduce velocities and erosion.

While these activities focused on reduction of erosion from the watershed into the lagoon, the condition of the lagoon itself still needs to be addressed; particularly, the accumulation of sediments over the past 50 years and the adverse impacts of historical modifications to the lagoon.

The Southern California Wetland Recovery Project, in response to a proposal from the Buena Vista Lagoon Foundation, added the Buena Vista Lagoon Restoration Project to its Work Program as a Tier 1 project in 2000. In February 2001, the Conservancy awarded a grant to the Foundation to commence restoration planning. The Conservancy grant of approximately \$430,000 leveraged \$190,000 of financial and in-kind assistance from the State Water Resources Control Board (\$50,000 from a lagoon sewage-spill settlement), the Foundation (a lagoon baseline study, \$130,000), and the Department of Fish and Game (staff time). The product of this project was the Buena Vista Lagoon Restoration Feasibility Analysis, prepared by Everest International Consultants (EIC), which was completed in 2004.

The second phase of restoration planning began in 2004 with financial assistance from the Conservancy and the U.S. Fish and Wildlife Service totaling approximately \$700,000. The goal of this phase is to further characterize existing conditions at the lagoon; identify constraints on restoration; further refine, model, and analyze restoration alternatives; prepare engineering drawings and develop project descriptions; commence preparation of an environmental impact report/environmental impact statement (EIR/EIS) pursuant to the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA); and conduct public outreach. Science Applications International Corporation of San Diego (SAIC) and EIC are providing engineering and environmental services for this project phase.

In September 2008, the Regional Water Quality Control Board approved, as part of settlement agreement with the cities of Carlsbad and Vista for a massive 2007 sewage spill at the lagoon, a \$500,000 Supplemental Environmental Project (SEP) to assist with completion of Phase II restoration planning for the lagoon. These funds will be managed and disbursed by the NFWF.

**PROJECT FINANCING:**

Coastal Conservancy	600,000
National Fish and Wildlife Foundation	<u>500,000</u>
TOTAL	\$1,100,000

Conservancy funding for the proposed authorization is expected to come from funds appropriated to the Conservancy in fiscal year 2008-09 from the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84). Proposition 84 allows for the utilization of funds for expenditures pursuant to Division 21 of the Public

Resources Code, as specified in Section 75060(b), and for projects that protect San Diego Bay and adjacent watersheds, as specified in Section 75060(f). Pursuant to Section 75060(b), funds may be allocated to the improvement and protection of coastal and marine water quality and habitats, so long as the project is compliant with Division 21 of the Public Resource Code. For purposes of Proposition 84, "San Diego Bay and adjacent watersheds" includes all the coastal and bay watersheds within San Diego County. (Pub. Res. Code § 75072.6).

NFWF will contribute \$500,000 to the project, secured by the Department and the USFWS as part of the September 2008 lagoon sewage spill settlement agreement between the Regional Water Quality Board (RWQCB) and the cities of Vista and Carlsbad. A break in a sewer line in the lagoon in 2007 dumped more than seven million gallons of partially treated sewage into the lagoon.

#### **CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:**

The proposed project would be undertaken pursuant to Chapter 6 of the Conservancy's enabling legislation, Public Resource Code Sections 31251-31270. Pursuant to Section 31251, the Conservancy may undertake projects to enhance coastal resources. This project would facilitate enhancement of the biological and hydrological resources of Buena Vista Lagoon by providing information critical for regulatory compliance/permitting and implementation of a future restoration program.

As required in Section 31252, the proposed project is consistent with the relevant local coastal programs covering the lagoon area, as described in the "Consistency with Local Coastal Program Policies" section below.

Public Resources Code Section 31253 provides that the Conservancy "may provide up to the total cost of any coastal resource enhancement" based upon the project's priority with other enhancement projects. Staff has evaluated the project in light of the total amount of funding available for coastal resource enhancement projects, the urgency of the project, and the Conservancy's Project Selection Criteria (discussed below) and recommends that the Conservancy contribute an additional \$600,000 to the phase II restoration planning costs.

#### **CONSISTENCY WITH CONSERVANCY'S STRATEGIC PLAN GOALS & OBJECTIVES:**

Consistent with **Coastal Resources Conservation Goal 5 Objective A**, the proposed project will increase coastal resource conservation by facilitating restoration of a degraded coastal lagoon that is a state ecological reserve.

Consistent with **Goal 5 Objective C**, the proposed project will facilitate removal of non-native plant species. Increasing sediment and nutrient loading as a result of urban growth in the watershed has resulted in decreasing water depth, reduced circulation, and an accelerating rate of cattail and bulrush growth.

**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:** Letters supporting the project have been received from the U.S. Fish and Wildlife Service, Regional Water Quality Control Board, NOAA, the cities of Carlsbad and Oceanside, Buena Vista Audubon, and the Buena Vista Lagoon Foundation (Exhibit 4).
4. **Location:** The project is located within the coastal zone of San Diego County, in the cities of Carlsbad and Oceanside, and would benefit natural resources in the coastal zone in these cities.
5. **Need:** The Department requests Conservancy project management and financial assistance because of continued budget and manpower shortfalls (see Department letter, Exhibit 3).

**Additional Criteria**

7. **Urgency:** Without Conservancy assistance, lagoon restoration planning may not be completed on a schedule that matches up with potentially significant sources of implementation funding available through San Diego Association of Governments (SANDAG).
8. **Resolution of more than one issue:** The project will address coastal resource protection, habitat quality and species protection, water quality, and watershed resource protection.
13. **Realization of prior Conservancy goals:** See the "Project History" section above.
15. **Cooperation:** The proposed project involves the cooperation of state, local, regional agencies, as well as interested stakeholders and members of the general public.

**CONSISTENCY WITH THE COASTAL ACT:**

This project is consistent with Section 30231 of the Coastal Act which states that the "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. . . ." The proposed project would facilitate future projects to restore and enhance the wetland environments at Buena Vista Lagoon.

**CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:**

The Local Coastal Programs (LCPs) of the Cities of Oceanside and Carlsbad recognize the lagoon's status as an ecological reserve and commit to protecting its sensitive biological habitats

and water quality. Both LCPs include policies which prescribe development controls to protect the Buena Vista Lagoon and its surrounding wetlands. The Oceanside LCP states “[t]he City shall work with other local, state, and federal agencies, including the recently formed Buena Vista Lagoon Joint Power Committee, to protect the sensitive biological habitats and water quality of Buena Vista Lagoon.” Similarly, the Carlsbad LCP Policy 3-2 provides for “maintaining or enhancing the functional capacity of the Lagoon in a manner acceptable to the State Department of Fish and Game.” The proposed project is consistent with these LCP policies as it would further efforts to restore and enhance the lagoon.

**COMPLIANCE WITH CEQA:**

The proposed project does not have the potential for a significant effect on the environment as it involves only the preparation of environmental documentation. Pursuant to 14 Cal. Code Regs. § 15061(b)(3)), the project is exempt from CEQA.

In the alternative, the proposed project is statutorily exempt from CEQA pursuant to 14 Cal. Code of Regs. Section 15262, since it involves only feasibility and planning activities and under Section 15306 as it involves resource evaluation activities which do not result in a serious or major disturbance to an environmental resource. Upon approval, staff will file a notice of exemption.