

COASTAL CONSERVANCY

Staff Recommendation
January 19, 2012

**BALLONA WETLANDS RESTORATION
ENGINEERING AND TECHNICAL STUDIES**

File No. 04-088
Project Manager: Mary Small

RECOMMENDED ACTION: Authorization to disburse up to \$6,250,000 for engineering, hydrologic analyses, geotechnical assessments, and public access design and further authorization to disburse up to \$240,000 to the Santa Monica Bay Restoration Foundation for data collection, technical review and agency coordination to support environmental impact analysis and permit applications for the restoration of the Ballona Wetlands Ecological Reserve in Los Angeles County.

LOCATION: Ballona Wetlands Ecological Reserve, located along the Ballona Creek Channel in Los Angeles County. A portion of the project is in the City of Los Angeles and a portion is in unincorporated Los Angeles County (Exhibit 1).

PROGRAM CATEGORY: Resource Enhancement and Public Access

EXHIBITS

- Exhibit 1: [Project Location](#)
 - Exhibit 2: [Historical Wetlands](#)
 - Exhibit 3: [Feasibility Study and Science Advisory Committee Recommendations](#)
 - Exhibit 4: [Restoration Conceptual Design](#)
 - Exhibit 5: [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, 31251-31270 and 31400 *et seq.* of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes an amount not to exceed six million, two hundred and fifty thousand dollars (\$6,250,000) for the completion of technical studies, engineering and public access design, hydrologic and project management to support the environmental impact analysis and permit applications for the restoration of the Ballona Wetlands Ecological Reserve, in Los Angeles County.

The State Coastal Conservancy further authorizes an amount not to exceed two hundred and forty thousand dollars (\$240,000) to the Santa Monica Bay Restoration Foundation for data collection, technical review and agency coordination to support environmental impact analysis and permit applications for the restoration of the Ballona Wetlands Ecological Reserve in Los Angeles County.”

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 9 Public Resources Code Sections 31400 *et seq.* regarding a system of Public Accessways; Chapter 6 Public Resources Code Sections 31251-31270, regarding the enhancement of natural resources; and with Public Resources Code Section 31111, regarding plans and studies.
3. The project serves greater than local need.
4. The Santa Monica Bay Restoration Foundation is a nonprofit organization existing under Section 501(c)(3) of the U.S. Internal Revenue Code and which purposes are consistent with Division 21 of the Public Resources Code.”

PROJECT SUMMARY:

The proposed project would enable the Conservancy to engage consultants to complete hydrologic analyses, geotechnical assessments, engineering design and design of public access improvements to support environmental impact analysis and permit applications for the restoration of the Ballona Wetlands Ecological Reserve (BWER). The proposed authorization would also provide funds to the Santa Monica Bay Restoration Foundation (SMBRF) to collect data, provide technical review and facilitate agency coordination to support environmental impact analysis and permit applications for the restoration of the BWER.

At one time, the Ballona Wetlands was vast coastal wetland complex that stretched across more than 2,000 acres from Playa del Rey to Venice (Exhibit 2). Today only a fragment of the original wetlands remains. The Ballona Wetlands Ecological Reserve includes 600 acres owned by the State of California and offers one of the largest and most promising opportunities for coastal wetland restoration in Los Angeles County. For more than 30 years, the site has been considered important for its potential as an outstanding habitat area and it has been identified as a regional priority for restoration in many reports and studies, including the Santa Monica Bay Restoration Plan and the Regional Strategy of the Southern California Wetland Recovery Project. The site also

provides valuable and scenic open space in the heart of congested Los Angeles County. When restored and opened to the public, the site will allow millions of residents and visitors a rare opportunity to experience a functioning coastal wetland.

To achieve this restoration potential, the Conservancy has been working in partnership with the California Department of Fish and Game (DFG), the State Lands Commission (SLC), and the Santa Monica Bay Restoration Commission (SMBRC) for the past several years to develop a restoration plan for the Ballona Wetlands. Between 2005-2009, the Conservancy and its partners completed a restoration feasibility study which identified conceptual restoration alternatives for the site. The feasibility study involved extensive public input, more than two dozen public meetings, and technical review from an independent Science Advisory Committee comprised of experts from around the country in disciplines related to wetland restoration. Based on the findings of the feasibility study and the recommendations of the Science Advisory Committee (Exhibit 3), the project partners (Conservancy, DFG, SLC, SMBRC and SMBRF) has developed revised restoration alternatives and a phasing plan for the implementation of the restoration.

The proposed restoration project is a long-term, science-based plan to restore ecological processes and to create a resilient and dynamic ecosystem by reconnecting the site to the ocean and the creek. The proposed restoration project involves the removal of both the north and south levees of the Ballona Creek flood control channel levees. The proposed restoration project would essentially move the existing levees to the perimeter of the Ballona Wetlands Ecological Reserve to allow tidal flow onto the wetlands, creating sub-tidal, marsh and upland habitats. The long-term wetland restoration project proposes to restore the coastal marsh between the existing Marina del Rey and the Westchester Bluffs, west of Lincoln Boulevard (Exhibit 4).

The long-term restoration plan involves significant construction costs associated with removing excess fill historically placed on the wetlands and providing flood protection for existing roads and infrastructure. Due to the significant construction costs, infrastructure constraints, and the desire to implement the project using adaptive management, the restoration project will be implemented in phases over several years. The project partners plan to complete a detailed project level environmental analysis of the entire restoration project. The first phase of construction is expected to restore wetlands in the portion of the ecological reserve north of the Ballona Creek channel and west of Highway 1. Funding for construction of the restoration project is anticipated to come from the Port of Los Angeles, the Santa Monica Bay Restoration Commission, Los Angeles County, and the remaining Proposition 12 funds appropriated to the Conservancy for the restoration of the Ballona Wetlands. The project partners are also working to identify potential private funders to help pay for implementation of the restoration project.

In order to complete the environmental analysis required under the National Environmental Policy Act and the California Environmental Quality Act and to apply for permits to implement the project, detailed technical work must be completed. The recommended authorization will fund these technical studies. This work includes detailed engineering and public access design as well as hydrology, hydraulics, soils and geotechnical analyses. The phase one restoration project will require a U.S. Army Corps of Engineers (USACE) Section 408 permit for approval of modifications to the existing Ballona Creek channel and levee system. The restoration project is subject to the USACE Section 408 approval process because the Ballona Creek channel and levee system is a USACE-authorized flood protection system. The Section 408 regulations require specific technical studies, including: flood risk and uncertainty analysis, which requires a probabilistic analysis of uncertainties in hydrology and hydraulics calculations for a full range of

possible flood events; soils and geotechnical analysis to support engineering design development; and pre-construction engineering analyses and design.

The recommended grant to the SMBRF would provide funds for data collection, technical review and agency coordination to support environmental impact analysis and permit applications for the restoration of the BWER. The SMBRF has implemented a multidisciplinary baseline data collection program using volunteers, students and professional technical experts. The baseline report is the first comprehensive assessment of biological and physical resources at the BWER. It was just published and is available online: <http://www.ballonarestoration.org>. This grant would allow the SMBRF to conduct additional targeted studies based on the resources identified in the baseline assessment as needed to support the environmental impact analysis of the proposed project. The SMBRF will also continue agency coordination, identification of funding partners, and technical review of work products of this proposed planning project.

The SMBRF is a non-profit organization that was created in 1991 to implement the priorities of the Santa Monica Bay Restoration Plan and to support the work of the Santa Monica Bay Restoration Commission. The SMBRF has implemented many multi-benefit projects to improve the health of the Ballona Watershed, restore natural processes and create public access opportunities. SMBRF's efforts throughout the watershed include facilitating planning and design processes, planning restoration, leveraging funding, monitoring and conducting independent technical studies for filling data gaps, and providing forums to address issues and foster consensus on issues important to Ballona and Santa Monica Bay. In addition, SMBRF and the Seaver College of Science and Engineering at Loyola Marymount University (LMU) created the Center for Santa Monica Bay Studies to engage in multidisciplinary research on environmental and social issues affecting Santa Monica Bay and its watershed, and to contribute to policies and actions that improve the environmental condition of the Bay. The partnership with LMU has been very valuable to the data collection efforts, SMBRF has used student volunteers to conduct fieldwork and some faculty have coordinated their own research to support the baseline assessment, resulting in hundreds of hours of field work being donated to the project.

Site Description:

The State of California now owns 600-acres of the former wetland complex. The DFG owns 540 acres, purchased with funds provided from the Conservancy to the Wildlife Conservation Board. The State Lands Commission owns 60-acres, including a freshwater marsh and adjacent vacant land. All of the DFG property and a portion of the SLC property is included in the Ballona Wetlands Ecological Reserve, designated by the Fish and Game Commission (Exhibit 1). The Ballona Wetlands Ecological Reserve is a degraded remnant of the historic wetland complex at the mouth of Ballona Creek which historically occupied about 2000-acres (Exhibit 2).

The Ballona Creek watershed is the largest watershed draining into Santa Monica Bay. The watershed includes approximately 130 square miles and includes much of the City of Los Angeles as well as the cities of West Hollywood, Beverly Hills and Culver City (Exhibits 1, 2). Approximately 80% of the watershed is urbanized and it is home to more than 1.5 million people. The project area receives surface runoff from adjacent urban areas through numerous storm drains. The site itself drains into the Ballona Creek channel.

The project area has been substantially altered during the last century, significantly reducing the quantity and quality of the wetlands. The site is impacted by fill, creek channelization, and development of roads, railways, the marina, and natural gas infrastructure. In addition, the site is surrounded by residential and commercial development. Despite these impacts, the BWER contains some low-functioning muted tidal marshes, freshwater wetlands, coastal bluffs, dunes, and upland habitats. The site supports several state- and federally-listed species of concern and it lies along the Pacific Flyway.

Over the past two years, the SMBRF has conducted a detailed site assessment at the Ballona Wetlands Ecological Reserve, collection information about biological, chemical, and physical components of the ecosystem as well as human use data. Preliminary results from this assessment indicated that the upland habitats which comprise the majority of the site are dominated by non-native species within the muted marsh habitats. Channelization of the creek, limited tidal connections, and conversion of wetland habitat to upland habitat reduce the ability of the wetlands to support fish and bird reproduction and fish migration. Recent surveys indicate a reduction in mammal species richness at the BWER and that the Ballona Wetlands suffers from a decline in native populations, a reduction in species ranges, and an increase in introduced species throughout the last century.

Project History:

There have been more than thirty years of intense conflict about land use at this site. Several development proposals and regulatory approvals resulted in litigation, some of which continues today. In 2001, The Trust for Public Land entered into a purchase agreement with Playa Capital Company, the former landowner. Through this purchase agreement, the DFG ultimately took title to 540 acres of the property in 2004. The Conservancy provided \$10 million for that acquisition.

The Conservancy has long supported resource enhancement and improved public access at the Ballona Wetlands. The first Conservancy project at this site was a 1986 grant to the National Audubon Society for environmental education facility associated with a proposed site restoration. That project was never implemented due to the ongoing conflicts about development. Beginning in the late 1980s, the Conservancy provided funding for planning and implementation of enhancements to the nearby Ballona Lagoon and transferred to the City of Los Angeles easements for resource enhancement over much of the land bordering the Lagoon.

In 2005, the Conservancy initiated conceptual planning and a feasibility study of restoration alternatives for the Ballona Wetlands. This restoration project is being implemented in partnership with the DFG and the State Lands Commission, the two state agency owners of the property and the Santa Monica Bay Restoration Commission. The conceptual plan and feasibility study involved extensive public input and scientific review. The project team conducted more than two dozen public meetings, including an all day alternative design workshop that involved more than 100 participants. The planning process also received technical review from an independent Science Advisory Committee comprised of experts from around the country. The feasibility study and associated recommendations from the Science Advisory Committee (Exhibit 3) were completed late in 2009, after a delay due to the bond freeze. Since that time, the project management team has worked to revise the project

alternatives consistent with these recommendations, to develop a project phasing plan, and to work with the regulatory agencies to outline the permitting process.

In addition, the project team has undertaken extensive data collection, including a wetland delineation report and a baseline assessment of the wetlands. Late in 2008, the SMBRF initiated a comprehensive baseline assessment project to collect data about the condition of the Ballona Wetlands Ecological Reserve. The objective of the baseline assessment is to document the health and functioning of Ballona Wetlands to inform management and restoration planning, while developing reproducible, scientifically valid and peer-reviewed regional wetland monitoring protocols. The baseline assessment is being implemented in coordination with the Southern California Wetland Recovery Project's Integrated Regional Monitoring Program to help develop site specific protocols for monitoring wetlands. Surveys of vegetation, seed bank, terrestrial invertebrate, soil, and elevation were conducted on permanent transects randomly located throughout all habitat types at the BWER. Additional biological data collected included surveys for small and large mammals, herpetofauna, ichthyofauna, benthic invertebrates, avifauna, and submerged aquatic vegetation. Water quality data collected included dissolved metals, fecal indicator bacteria, nutrients, and additional parameters. The assessment has collected extensive physiochemical, biological and human use data using volunteers, students and professional technical experts. The technical report from the first year of the assessment was just published, it is available online: www.ballonarestoration.org.

PROJECT FINANCING:

Coastal Conservancy	<u>\$6,490,000</u>
Total Project Cost	\$6,490,000
Santa Monica Bay Restoration Foundation (in-kind)	\$190,000

The Conservancy funding would be derived from an appropriation of funds specifically designated for the acquisition, protection and enhancement of the Ballona Wetlands in the 2000 park bond, Proposition 12. The SMBRF in-kind funds would come from US EPA funding provided to the SMBRF for its staff and from a US EPA Wetland Program Development Grant received for work at Ballona.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

The proposed project is consistent with Section 31111 which authorizes the Conservancy to fund and undertake plans and studies as well as award grants to nonprofit organizations and public agencies for the same. The proposed authorization is specifically for funding for planning restoration of Ballona Wetlands and includes a grant to SMBRF for the same planning purposes.

The proposed project is consistent with Division 21, Chapter 6, Sections 31251-31270 of the Public Resources Code, which states that the Conservancy may provide grants to nonprofit organizations for the purpose of enhancing coastal resources that have suffered a loss of natural and scenic values. The proposed project is for restoration planning of Ballona Wetlands, which

has lost most of its natural function and seeks to restore these functions. As discussed below, consistent with Section 31252, the project is identified as requiring public action to resolve its resource problems and therefore is consistent with the policies and objectives of the Coastal Act, Division 20 of the Public Resources Code. Consistent with Section 31253, the Conservancy may provide up to the total cost of any coastal resource enhancement project and as the project funding is reserved specifically for Ballona Wetlands, the proposed project is consistent with this section.

The proposed project is consistent with Division 21, Chapter 9, Sections 31400 *et seq.* of the Public Resources Code, which directs the Conservancy to take a principal role in the implementation of a system of public accessways so that the public can exercise its right to access and enjoy coastal resources. Consistent with Section 31400.1, the Conservancy may fund technical studies to develop accessways along the coast that serve greater than local public needs.

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

Consistent with **Goal 5 Objective A** of the Conservancy's Strategic Plan, the proposed project would help the Conservancy to restore and enhance up to 600 acres of coastal wetland and adjacent habitat. When implemented, this project will be a major contribution to the total acreage target for Southern California.

Consistent with **Goal 1 Objective C** of the Conservancy's Strategic Plan, the proposed project area could provide a new segment of the Coastal Trail. As discussed above, the project is located at the intersection of the California Coastal Trail and the Ballona Creek Trail, and may offer a significant opportunity for the development of improved connections between these trails.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA & GUIDELINES:

The proposed project is consistent with the current Conservancy's Project Selection Criteria and Guidelines in the following respects:

Required Criteria

Promotion of the Conservancy's statutory programs and purposes: See the "Consistency with Conservancy's Enabling Legislation" section above.

Consistency with purposes of the funding source: See the "Project Financing" section above.

Support of the public: There is support for this project from the public and the partner agencies working on the Ballona restoration project. Letters of support are attached as Exhibit 5.

Location: The proposed project would be located within the coastal zone of Los Angeles County. The site is surrounded by dense urban development. Restoration of natural habitats and construction of public access trails onto the BWER will create a rare opportunity for urban residents to experience a coastal wetland environment. The site also provides valuable and scenic open space and public access opportunities in the heart of congested Los Angeles County.

Need: Conservancy funds are needed to complete this project. Neither SMBRF nor the DFG, the owner of the site, have resources to implement this restoration planning project.

Greater-than-local interest: This restoration project is the largest coastal wetland restoration project in Los Angeles County and has been identified as a priority in the Santa Monica Bay Restoration Plan and the Regional Strategy of the Southern California Wetland Recovery Project. The project site is also located at the intersection of the California Coastal Trail and the Ballona Creek Trail, and the restoration project's public access component will improve connections between these trail systems. As part of the resource enhancement project, interpretive and public access to the site will be expanded. When restored and opened to the public, the site will allow millions of residents and visitors a rare opportunity to experience a functioning coastal wetland.

Sea level rise vulnerability: The conceptual restoration plan was designed to accommodate sea level rise (SLR) consistent with the Coastal Conservancy's Climate Change Policy. The primary adaptation strategy for this site is to use broad transitional slopes between wetland and upland habitats to allow wetland habitats to transgress landward with sea level rise. The restoration alternative was specifically revised to increase the acreage of transition and upland habitats and reoriented to allow the broadest area for wetland habitat transgression over time. These gradual slopes are intended to allow wetland habitats to transgress up slope with rising sea levels. Wetland habitats types are generally found within a range of elevations related to specific tidal inundation frequencies that are suitable for associated plant types. As tide levels and inundation frequencies increase with sea level rise, wetland habitat types may be converted to habitats that occupy lower portions of the tide frame (e.g., conversion of vegetated marsh to mudflat) and upland transition habitats may be converted to wetland habitats. This process of "coastal rollover" has occurred over geologic time, and is expected to continue and accelerate with projected sea level rise. Sediment supply from the Ballona Creek watershed and Santa Monica Bay is expected to be low, making it unlikely that sediment accretion in the restored wetland will keep pace with sea level rise.

Immediately after restoration, the habitat types expected onsite include narrow bands of mudflat and low salt marsh along the Ballona Creek with broad areas of mid marsh, high marsh, transition zone, and upland habitats. With 1.3 ft (16 in.) of SLR and associated increased inundation frequencies, mid marsh may be converted to mudflat and low marsh, high marsh may be converted to mid marsh, and the transition zone may "squeeze" upland habitats into a narrow band along the steeper upland/levee slope. With 4.6 ft (55 in.) of SLR, the site may be converted to a mix of mudflat, low marsh, and mid marsh, with high marsh and transition zone habitats "squeezed" onto the levee slope. The restored slopes of area north of the channel are intended to maintain the restored area of vegetated mid marsh with 55 in. of SLR. The preferred alternatives therefore include large areas of upland and transition zone habitats around the perimeter that are expected to be converted to wetland habitats over time. These restored upland and transition habitats are expected to provide interim habitat benefits and avoid the cost of initially grading these areas to wetland habitat elevations.

Additional Criteria

Urgency: More than 98% of the coastal wetlands in the Southern California bight have been destroyed or degraded. Many of the species that use or historically used the Ballona Wetlands

habitat are in decline. This proposed project offers an opportunity to restore significant wetland habitat acreage.

Resolution of more than one issue: The conceptual restoration plan was developed to achieve a number of goals, including: enhancement of wetland and adjacent habitat, creation of compatible public access opportunities, improvement of coastal water quality, and flood protection. Implementation of the restoration project and the creation of wetland habitat will also decrease illegal and harmful uses of the site.

Readiness: If approved, the planning work will begin immediately.

Realization of prior Conservancy goals: See “Project History” above.

Cooperation: The conceptual restoration plan was developed in a public process with input from a Science Advisory Committee, an Agency Advisor Committee, and the Ballona Working Group made up of representatives of local nonprofit organizations, agency staff and members of the public. Individual public members also participated in all facets of the development of the restoration alternatives. The restoration project will be implemented in cooperation with DFG, State Lands Commission, Los Angeles County Flood Control and many other agencies and organizations.

CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:

In the late 1980s, the California Coastal Commission certified two separate Land Use Plans that covered this project area. No Local Coastal Program was ever completed for the Ballona Wetlands area and the two Land Use Plans are now out of date. However the proposed planning project is consistent with the policies of the Coastal Act. The restoration project goals are consistent with the Coastal Act goals as stated in Public Resources Code Section 30001.5, as the restoration project will protect, enhance and restore the natural resources of the site and expand public recreational opportunities consistent with conservation of those resources.

COMPLIANCE WITH CEQA:

Under 14 California Code of Regulations (CCR) Section 15262, feasibility and planning activities are statutorily exempt from California Environmental Quality Act (CEQA) review. Similarly, 14 CCR Section 15306 categorically exempts basic data collection, research, and 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 for the project.