COASTAL CONSERVANCY

Staff Recommendation
June 15, 2017

Cardiff State Beach Living Shoreline Project

Project No. 15-003-03
Project Manager: Evyan Sloane

RECOMMENDED ACTION: Authorization to disburse a total of up to $2,242,540 to the City of Encinitas, the San Elijo Lagoon Conservancy, and the University of California Los Angeles for dune restoration and monitoring at Cardiff State Beach, County of San Diego.

LOCATION: San Elijo Lagoon, City of Encinitas, County of San Diego (Exhibit 1).

PROGRAM CATEGORY: Climate Adaptation, Resource Enhancement

EXHIBITS

Exhibit 1: Project Location Map

Exhibit 2: Photos of Proposed Project Area and Design

Exhibit 3: Project Letters

Exhibit 4: Addendum to Final Mitigated Negative Declaration

Exhibit 5: September 29, 2016 Conservancy authorization

RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31113 and 31251-31270 of the Public Resources Code:

"The State Coastal Conservancy hereby authorizes the disbursement of up to two million two hundred forty-two thousand five hundred forty dollars ($2,242,540) for dune restoration and monitoring at Cardiff State Beach, as follows:

1) Up to two million seventy two thousand twenty-two dollars ($2,072,022) to the City of Encinitas for project management, administration, engineering, and planning;
2) Up to eighty seven thousand two hundred twenty-nine dollars ($87,229) to the San Elijo Lagoon Conservancy for dune planting and biological monitoring; and
3) Up to eighty three thousand two hundred eighty-nine dollars ($83,289) to the University of California Los Angeles for physical monitoring.

Prior to the disbursement of any funds to a grantee, the grantee shall submit for the review and written approval of the Conservancy's Executive Officer a work program, including budget and

schedule, and the names and qualifications of any contractors to be employed for these work program 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 authorization is consistent with Chapter 3 of Division 21 of the Public Resources Code (Section 31113), regarding addressing the impacts of climate change and Chapter 6 of Division 21 of the Public Resources Code (Sections 31251-31270) regarding resource enhancement.
2. The proposed project is consistent with the current Conservancy Project Selection Criteria and Guidelines.
3. The San Elijo Lagoon Conservancy is a nonprofit organization existing under section 501(c)(3) of the U.S. Internal Revenue Code, and whose purposes are consistent with Division 21 of the Public Resources Code.
4. The proposed project remains consistent with the Conservancy's September 26, 2016 findings with respect to the California Environmental Quality Act."

PROJECT SUMMARY:

Staff recommends authorization to disburse a total amount of up to $2,242,540 of state funds from the Ocean Protection Council to the City of Encinitas ("City"), the San Elijo Lagoon Conservancy ("SELC"), and the University of California Los Angeles ("UCLA") to construct a dune restoration project and implement the monitoring and community education associated with the restoration at Cardiff State Beach, owned by the California Department of Parks and Recreation ("State Parks").

The dune restoration project ("project") will provide natural sea-level rise protection to Cardiff State Beach and Highway 101 by utilizing a "living shoreline" approach that creates four acres of beach dunes. Dune restoration is a useful sea-level rise adaptation strategy because dunes can reduce coastal storm damage by buffering the shoreline from waves and tides. Coastal dunes have been heavily impacted by development and very little of this habitat type remains in Southern California, so this proposed project will both restore a heavily impacted habitat and provide natural sea-level rise adaptation at Cardiff State Beach. The project will construct four acres of beach dunes and a footpath along the dunes, and support a scientific monitoring program.

The proposed project will build on two earlier phases funded by the Conservancy. Phase 1, authorized for funding by the Conservancy on March 26, 2015, investigated the appropriate design and approach for restoring historic dunes along Coast Highway at Cardiff State Beach and identified a preferred restoration alternative. Phase 2, authorized in September 2016, finalized the planning and design of the project. Additionally, the project will see significant cost savings

through utilization of approximately 30,000 cubic yards of beach-compatible material from the San Elijo Lagoon, which will be enough material to construct the entire 4-acres of dune habitat.

The proposed project will potentially reduce the vulnerability of Coast Highway, San Elijo Lagoon, and other coastal infrastructure and natural resources to sea level rise and restore a habitat that has been severely impacted in this area. It will also expand the SELC's environmental education program to include living shoreline and dune education as well as increase public access to Cardiff State Beach with the construction of a dune footpath.

Physical and biological monitoring will be conducted before and after project construction to provide information on how and why dune topography changes over time and which native plants are the best suited for dune restoration in the region. The City and UCLA will monitor the seaward toe of the dunes to evaluate sand accretion and erosion as well as general sand dynamics of the beach. The project will also include annual, early spring plant monitoring and invasive control efforts in the project area and reference site conducted by SELC.

The City will provide project management, administration, engineering, and planning, and will be responsible for on-going maintenance once the project is completed. The SELC will provide dune biologists for planting and biological monitoring. UCLA will provide the physical monitoring program. All of these grantees have worked with the Conservancy in the past and have proven records of accomplishment of competence and expertise for the project elements for which they are responsible.

Site Description: The Cardiff LSP area is located at Cardiff State Beach in the City of Encinitas (Exhibit 1). The Cardiff LSP area extends from the south end of Restaurant Row to the north end of the Seaside State Park parking lot (See Exhibit 1). The Cardiff LSP area straddles the Swami's State Marine Conservation Area (SMCA) and the San Elijo Lagoon SMCA, both managed by the California Department of Fish and Wildlife. The Cardiff LSP area consists of the back beach portion of Cardiff Beach owned and managed by State Parks. State Parks and the City of Encinitas will be developing and signing a Memorandum of Understanding allowing the City to perform general operations and maintenance of the project once constructed.

Project History: For over 25 years, the Conservancy has been working with the SELC on the restoration and management of San Elijo Lagoon. Currently, Conservancy staff maintains its involvement in the San Elijo Lagoon Restoration Project ("SELRP") and staff has been on the SELRP stakeholder group for seven years. The Conservancy also partially funded the preliminary engineering for the SELRP. The SELRP will include the export of approximately one million cubic yards of beach-compatible materials over ten months. The proposed project complements the SELRP by providing a beneficial reuse placement site for approximately thirty thousand cubic yards of export materials generated during construction. The project also complements the SELRP by investigating options for protecting the estuary, and the SELRP, from sea level rise.

The proposed project is related to and generally consistent with the SELC's Seaside Terrace Dune Plant Restoration Project, which is directly adjacent, and SELC's involvement in both projects will promote consistency between them.

This will be the third Conservancy authorization for the Cardiff Living Shoreline Project. On March 26, 2015, the Conservancy authorized a $150,000 grant to the City to conduct a feasibility study and conceptual plan for the project. On September 29, 2016, the Conservancy authorized a $322,000 grant to the City to complete the design and permitting for the project and approved, as a responsible agency under CEQA, State Parks' Mitigated Negative Declaration for the project (Exhibit 5).

PROJECT FINANCING

Ocean Protection Council (OPC) grant funds to the City	$1,982,000
Coastal Commission (CCC) Violation Remediation to the City	$90,022
OPC grant funds to the SELC	$68,948
CCC to the SELC	$18,281
OPC grant funds to UCLA	$80,592
CCC to UCLA	$2,697
Project Total	**$2,242,540**

The expected fund source for this project is a grant to the Conservancy from the Ocean Protection Council's fiscal year 2015 appropriation from the Water Quality, Supply, and Infrastructure Improvement Act of 2014 (Proposition 1, Water Code § 79700 *et seq*).

The second expected fund source for this project is the Violation Remediation Account (VRA). VRA funds are derived from Coastal Commission coastal development permit enforcement actions and use of those VRA funds are guided by a Memorandum of Understanding between the Coastal Commission and the Conservancy. The Coastal Commission has agreed to use of VRA funds derived from the Sonnie violation (#V-6-97-003), the Brown violation (#CCC-09-CD-05), and the Biem violation (#CCC-14-CD-05) for this proposed project. All these violations occurred in San Diego County.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

The proposed project will be undertaken pursuant to Chapter 3 of the Conservancy's enabling legislation, (Public Resource Code Section 31113) and Chapter 6, resource enhancement (Public Resources Code Sections 31251-31270).

Section 31113 permits the Conservancy to address the potential impacts of climate change on resources within its jurisdiction. Pursuant to this authorization, the proposed project will construct native dune habitat as a natural solution for resource adaptation to address sea level rise.

Consistent with Section 31251, the proposed project will implement corrective actions (dune restoration) to enhance natural resources, specifically the dunes along the coast at Cardiff State Beach, that have suffered the loss of natural and scenic values due to indiscriminate dredging and filling, improper location of improvements, human-induced events, and incompatible land uses. The proposed project is intended to assist the Conservancy in meeting its purposes and objectives

under this section by increasing the feasibility, cost-effectiveness, and persistence of wetland restoration and enhancement projects in Southern California's coastal zone and coastal watersheds. Consistent with Section 31251, the City and UCLA are public agencies and SELC is a non-profit, and therefore qualify for grants from the Conservancy under Chapter 6.

The proposed project is consistent with Section 31252 because the City's current Local Coastal Program (LCP) identifies coastal resources, such as this proposed area, as requiring public action to resolve existing or potential resource protection problems to preserve the integrity, function, productivity, and long-term viability of environmentally sensitive habitats (LCP policy 10 on Preservation of Environmentally Sensitive Habitats). Additionally, LCP Policy 8.9 provides for the City to adopt land use categories for the purposes of implementing the Local Coastal Plan. In the City's General Plan, the proposed project site is identified as a coastal area to be publicly improved (e.g. roadway, parking, traffic control, and drainage; General Plan Land Use policy on Commercial Revitalization for Community of Cardiff-By-The-Sea). Therefore, the proposed project is consistent with Section 31252 regarding the LCP goals because it will provide native dune habitat as well as protect the roadway from the undercutting and overtopping of waves.

Section 31253 permits the Conservancy to provide up to the total cost of any coastal resource enhancement project, consistent with established project eligibility and priority factors. In determining the amount of Conservancy funding for this proposed project, the factors identified in Section 31253 were considered and applied, as described in detail in the section "Consistency With Conservancy's Project Selection Criteria & Guidelines," below. Additionally, the proposed project was reviewed and subsequently recommended for funding through a competitive grant process under the Ocean Protection Council's *Proposition 1 Grant Program Guidelines*.

CONSISTENCY WITH CONSERVANCY'S ACCESS PROGRAM STANDARDS:

Standard No. 1, Protect Public and Coastal Resources: The project will safely accommodate public use by having adequate barriers and signage to prevent parking congestions, crowding, and misuse of coastal resources.

Standard No. 2, Correct Hazards: The project's pedestrian footpath will not increase the potential for any hazard, such as fire or erosion.

Standard No. 8, Trails: The project's pedestrian footpath will connect two access points, one in the northern-most point of the project boundary and one in the southern-most point of the Project boundary, which does not exist today except on the beach itself. The footpath will have adequate barriers and signage for pedestrians.

Standard No. 13, Barrier-Free Access: The project's pedestrian footpath will have at least one barrier-free access point adhering to the requirements of Title 24 of the California Administrative Code.

CONSISTENCY WITH CONSERVANCY'S 2013 STRATEGIC PLAN GOAL(S) & OBJECTIVE(S), AS REVISED JUNE 25, 2015:

Consistent with **Goal 5, Objective B** of the Conservancy's 2013-2018 Strategic Plan, the proposed project will restore approximately 4 acres of coastal dunes.

Consistent with **Goal 7, Objective D**, the proposed project will implement an adaptation strategy to address threats to coastal communities and public infrastructure in a way that protects natural resources and provides maximum public benefits.

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 October 2, 2014, 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. **Promotion and implementation of state plans and policies:** The proposed project is consistent with the following state plans and policies promoting global climate change resilience and adaptation:
    a. The proposed project implements *California @ 50 Million: The Environmental Goals and Policy Report* (Governor's Office of Planning and Research, 2013 Draft) by pursuing the action to invest in climate adaptation pilot programs, tools and approaches.
    b. The proposed project aligns with the goals listed in the *CA Climate Adaptation Strategy/Safeguarding California: Reducing Climate Risk Plan* (CA Natural Resources Agency, July 2014) by implementing an innovative shoreline management project. The proposed project will provide insight into managing shorelines in the era of rising sea levels and storm surges.
    c. The proposed project will implement the *Regional Strategy* for the Southern California Wetlands Recovery Project (2001) by restoring dunes to buffer wetland habitat.
4. **Support of the public:** The proposed project is supported by a number of local organizations. See Exhibit 3 for new support letters from California State Parks and California Coastal Commission and Exhibit 5 for previous support letters from legislators and other relevant agencies.
5. **Location:** The project area is located within the coastal zone at Cardiff State Beach between the cities of Encinitas and Solana Beach.
6. **Need:** The stretch of Coast Highway at Cardiff State Beach, which provides coastal access for about 20,000 users each day, is already affected by coastal erosion and wave overtopping. With predicted rates of sea level rise, the impacts to Coast Highway are predicted to increase. The City wants to implement the use of natural solutions for shoreline protection, such as dune restoration, instead of waiting until it is too late to implement natural solutions so that

hard structures are the only option. The City does not have the funding available for this kind of project and the proposed project will not occur without the proposed authorization.

7. **Greater-than-local interest:** Developing and implementing living shorelines projects is of interest for the entire State. The information gathered from the project will allow the Conservancy and other state and federal agencies and non-profits to replicate projects like this throughout the State.
8. **Sea level rise vulnerability:** Coast Highway at Cardiff State Beach is highly vulnerable to sea level rise because of its location on the coast. The project will investigate an innovative method for the City to protect built and natural infrastructure from sea level rise, while also restoring habitat.

Additional Criteria

9. **Urgency:** The project is urgent as threats of sea level rise continue to increase in California's coastal zones. In addition, the SELRP is on schedule to begin construction in fall 2017. The project will use the beach sand from San Elijo Lagoon as a possible low-cost source to restore dunes along Coast Highway. The City must be ready to implement the project before the SELRP begins in order to take advantage of the available beach sand.
10. **Resolution of more than one issue**: The project resolves many issues in the region including the absence of native dune habitat, lack of local knowledge in living shoreline approaches for sea level rise adaptation, and reduced public access to Cardiff State Beach along Highway 101.
11. **Leverage**: The City will provide approximately $100,000 of in-kind services for the proposed project in City staff time. In addition, the project is estimated to save approximately $1,000,000 in project costs by using sand from the San Elijo Lagoon.
12. **Innovation**: Living shorelines projects, such as the one proposed, are an innovative approach to sea level rise adaptation.
13. **Readiness**: SCC has worked with the grantee, setting out specific milestones that needed to be achieved before grant funds would be administered. The grantee has submitted all of the requested documents, including a letter of intent to sign a Memorandum of Understanding with State Parks for maintenance of the project, and has thus demonstrated its readiness to implement the project.
14. **Realization of prior Conservancy goals**: "See "Project History" above."
16. **Cooperation**: The City, the SELC, State Parks, the Coastal Commission, and SANDAG have coordinated and will work together in the development of the proposed project.
17. **Vulnerability from climate change impacts other than sea level rise:** While the proposed project area is not vulnerable to sea level rise, projected increases in storm events and El Niño may exacerbate those effects. An implementation goal of the Cardiff LSP is to protect the surrounding areas from these events and if any of the Cardiff LSP elements requires maintenance, the annual source of sand from the management of the San Elijo Lagoon will provide sand material needed to rebuild the dune features.

15. **Minimization of greenhouse gas emissions:** As determined in the project's Mitigated Negative Declaration, there will be no significant adverse impact of greenhouse gas emissions from project construction.

CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:

The project is consistent with the City's current Local Coastal Program in its goals to undertake programs to ensure that coastal areas are maintained and remain safe and scenic for both residents and wildlife, and to preserve the integrity, function, productivity and long-term viability of environmentally-sensitive habitats throughout the City.

COMPLIANCE WITH CEQA:

On March 24, 2016, State Parks as lead agency under the California Environmental Quality Act (CEQA) adopted a Mitigated Negative Declaration (MND) and Mitigation Monitoring and Reporting Program (MMRP) for the Cardiff Living Shoreline Project.

On September 29, 2016, the Conservancy considered the MND and approved the Cardiff Living Shoreline Project (Project). See Exhibit 5). Subsequently, there were changes to the Project.

The Project changes include minor changes to the project description such as a potential increase in the sand dune crest height by 10 inches and the footpath increasing in width by 1 foot. Another minor change to the Project is that the construction work will occur between September 15 and May 25 (instead of September 15 and March 1) of any year. In addition, State Parks discovered new information regarding the Project's possible environmental effect on fish resources, namely on the California grunion. The MND identified a "less than significant" effect from the Project on the California grunion. However, State Parks has determined that the effect on California grunion is "less than significant with mitigation measures incorporated" (See Exhibit 4, Addendum, pp 20-24).

To address the possible environmental effects of these Project changes, on May 10, 2017, State Parks as lead agency approved an addendum to the MND (See Exhibit 4). State Parks determined that an addendum to the MND was proper because in light of the whole record, there is no substantial evidence that the Project changes have the possibility for a significant environmental effect as described in 14 California Code of Regulations (CCR) §15162; the project changes are minor, technical additions or changes as described in CCR Section 15164(b); and the new information regarding the project's possible significant effect on the grunion is not of substantial importance as described in CCR Section 15162(a)(3). (See Exhibit 4).

Staff therefore recommends that the Conservancy find that the proposed project remains consistent with the CEQA findings made in its September 29, 2016 authorization for the Cardiff Living Shoreline Project (See Exhibit 5).