COASTAL CONSERVANCY

Staff Recommendation

June 18, 2026

This staff recommendation replaced a prior posted version that inadvertently included a side margin comment

NATURE-BASED COASTAL RESILIENCE STRATEGY AND DUNE RESTORATION FRAMEWORKS FOR SOUTHERN CALIFORNIA

Project No. 26-022-01

Project Manager: Karen Bane

RECOMMENDED ACTION: Authorization to disburse up to $880,000 to the Regents of the University of California, San Diego and Southern California Coastal Water Research Project to collaboratively develop a Nature-based Coastal Resilience Strategy and Dune Restoration Frameworks for Southern California in Ventura, Los Angeles, Orange and San Diego Counties.

LOCATION: Coastal ecosystems in Ventura, Los Angeles, Orange, and San Diego Counties (Exhibit 1).

EXHIBITS

Exhibit 1: Project Location Map

Exhibit 2: Project Support Letters

RESOLUTION AND FINDINGS

Staff recommends that the State Coastal Conservancy adopt the following resolution and findings.

Resolution:

The State Coastal Conservancy hereby authorizes a grant of an amount not to exceed eight hundred eighty thousand dollars ($880,000) to the Regents of the University of California, San Diego (fiscal sponsor for California Sea Grant) and Southern California Coastal Water Research Project ("grantees") to collaboratively develop a Nature-based Coastal Resilience Strategy and Dune Restoration Frameworks for Southern California in Ventura, Los Angeles, Orange and San Diego Counties ("the project"). The two grantees are as follows:

The Regents of the University of California, San Diego (fiscal sponsor for California Sea Grant): Eight hundred thousand dollars ($800,000) to develop all components of the Nature-based Coastal Resilience Strategy and Dune Restoration Frameworks.

Southern California Coastal Water Research Project: Eighty thousand ($80,000) to advise about best practices for coastal wetland restoration, as one solution in the Nature-based Coastal Resilience Strategy and about how to integrate coastal wetlands with dunes and other nature-based solutions.

Prior to commencement of the project, each grantee shall submit for the review and written approval of the Executive Officer of the Conservancy (Executive Officer) the following:

1. A detailed work program, schedule, and budget.
2. Names and qualifications of any contractors to be retained in carrying out the project.

Findings:

Based on the accompanying staff recommendation 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, regarding the Climate Ready Program.
2. The proposed project is consistent with the current Conservancy Project Selection Criteria.

STAFF RECOMMENDATION

PROJECT SUMMARY

Staff recommends the Conservancy grant up to $880,000 to the Regents of the University of California, San Diego (fiscal sponsor for California Sea Grant) and Southern California Coastal Water Research Project to collaboratively develop a Nature-based Coastal Resilience Strategy and Dune Restoration Framework for Southern California in Ventura, Los Angeles, Orange and San Diego Counties ("the project"). The California Sea Grant (CSG) will develop the project with input and advice from the Southern California Coastal Water Research Project (SCCWRP).

In Southern California, massive investments are being made for coastal resilience planning and projects to protect coastal communities and ecosystems from flooding, erosion, and sea-level rise. Nature-based solutions are growing in popularity and range from traditional coastal ecosystem restoration to innovative green infrastructure, which uses or mimics natural ecosystems. The Conservancy is involved in or is aware of at least 36 nature-based coastal resilience projects being developed and implemented in Southern California. While coastal ecosystems such as beaches, dunes, and salt marshes historically provided shoreline protection and critical ecosystem services, urban development has significantly reduced their extent and resilience, especially in highly urbanized Southern California. Los Cerritos Wetlands, Ormond Beach, Tijuana Estuary, and Loma Alta Slough are just a few of the estuaries in some stage of planning and restoration due to funding from the Conservancy. Bold green infrastructure projects are being piloted across southern California. Examples include using dune covered cobble berms for the Cardiff and Surfer's Point Living Shoreline projects that were partially funded by the Conservancy. Other examples for erosion and flood control include the South San

Diego Bay Native Oyster Restoration Project and the San Diego Bayshore Bikeway Coastal Resiliency Project, respectively. More complex projects like the recent authorization of Conservancy funding for the San Clemente North Beach Sand Retention project are being developed.

Regional collaboration amongst the local organizations that are leading nature-based adaptation, such as cities, counties, non-profits, and tribes, and other State agencies is needed to consolidate best practices, identify and address gaps, integrate projects across the coastal landscape, and support professionals and communities to streamline this critical work. This need for better collaboration has been shared with Conservancy staff through many projects, meetings, and discussions. Amongst these project leads, there are varying levels of technical understanding and experience for each type of ecosystem restoration and green infrastructure project. In addition, sharing of approaches and lessons learned by project type and across the region is inconsistent. This leads to pilot projects being unnecessarily replicated, projects developed without benefit of the most current best practices, and slower progress in scaling up nature-based coastal resilience solutions to larger geographies. Furthermore, it is a challenge for regulatory agencies to permit these projects as they do not easily fit traditional dichotomies of permit schemes for either strictly restoration or strictly engineered infrastructure.

The project will result in a Nature-based Coastal Resilience Strategy and Dune Restoration Frameworks for Southern California that will address the urgent need for a holistic, coordinated strategy to advance the pace and scale of nature based coastal resilience projects from Ventura County to the border with Mexico. The concept for the strategy was developed by CSG in collaboration with representatives of the Southern California Wetlands Recovery Project (WRP), the California Dune Science Network (CDSN), and the Southern California Coastal Water Research Project (SCCWRP). The CSG will leverage the WRP and CDSN to support a larger suite of coastal resilience projects. For almost 30 years, the WRP has successfully advanced wetland restoration with its structure for technical experts and scientists, regulatory and funding agencies, and communities to collaborate. The CDSN is also a successful model initiated and overseen by California Sea Grant since 2019, for cross-disciplinary collaboration and production of science-based management tools for dune ecosystems. These productive and effective programs can serve as models for the decision-making structure, function and products needed for comprehensive, well-informed decisions surrounding use of nature based solutions to bolster coastal climate resilience for the full range of sedimentary coastal ecosystems in California.

The project consists of two components: (1) the Nature based-Coastal Resilience Strategy, and (2) the Dune Restoration Frameworks. The Nature-based Coastal Resilience Strategy will be co-developed and implemented with local project leads and experts throughout the region. It will include a situation assessment that compiles current science and best practices for each type of nature-based coastal resilience solution and identifies gaps that need to be addressed. Following the assessment, a science and technical advisory team will identify strategies to address the gaps and prioritize actions and projects necessary to accomplish the strategies.. Finally, symposiums and workshops will be designed and hosted to keep practitioners and communities up to date on the best available science and on project outcomes across the region.

The second component of the project is the Dune Restoration Frameworks, which will be developed using recently completed inventory maps, monitoring, and vulnerability assessment of dunes across California. These will guide best practices in planning and monitoring of dune projects. First, project leads will be able to evaluate whether a site is suitable for dunes and, given the site conditions, choose a restoration or creation approach that works best. Second, project leads will be equipped to monitor and assess the performance of their dune. The frameworks, supporting data, and case studies using the frameworks will be made available on the CDSN website and in quarterly newsletters. In partnership with dune project partners, tribes, and community members throughout Southern California, dune related outreach events, restoration and educational opportunities will be developed. Developing the Dune Restoration Frameworks in concert with the Nature-based Coastal Resilience Strategy will ensure dune restoration will be integrated with other ecosystem restoration and green infrastructure projects across the natural coastal landscape and across the region.

In combination, Nature-based Coastal Resilience Strategy and Dune Restoration Frameworks will compile current and best science and technical information about nature-based coastal resilience projects and provide tools that help communities make decisions to prioritize, design, implement and adaptively manage coastal ecosystem restoration and natural infrastructure projects to increase resiliency to the impacts of climate change along the coast. Additionally, agencies may rely upon the information and tools when making decisions about project prioritization for funding and when evaluating and permitting projects in southern California.

Development of the Nature-based Coastal Resilience Strategy and Dune Restoration Frameworks will involve the two grantees, and the Conservancy, working together to develop the project. Each grantee will participate as follows:

The Regents of the University of California, San Diego (fiscal sponsor for California Sea Grant): Develop all components of the Nature-based Coastal Resilience Strategy and Dune Restoration Frameworks.

Southern California Coastal Water Research Project: Advise about best practices for coastal wetland restoration, as one solution in the Nature-based Coastal Resilience Strategy, and about how to integrate coastal wetlands with dunes and other nature-based solutions.

Site Description: This project focuses on Southern California, from the U.S.-Mexico Border in San Diego County to the south to Point Conception in Santa Barbara County to the north. The project's focal area also extends from nearshore waters of the pacific ocean to upland transition zone of coastal estuaries.

Grant Applicant Qualifications: The Regents of the University of California, San Diego will serve as a fiscal agent for receiving and administering the grant on behalf of the California Sea Grant (CSG). CSG is a collaboration of the National Oceanic and Atmospheric Administration (NOAA), the State of California, and universities across the state to create knowledge, products and services that benefit the economy, the environment, and the citizens of California. For over 50 years, CSG has served an essential role in embedding experts to work with communities to address important coastal issues and in administering funds from state, federal and other sources for research, monitoring, management, education, workforce development and

communication projects. For example, CSG currently has contracts with California Department of Fish and Wildlife and the Ocean Protection Council to assist with the development of two innovative resource plans – the California Artificial Reef Plan and the Kelp Restoration and Management Plan - and to administer the Accelerating Kelp Research and Restoration in California grants program.

The Southern California Coastal Water Research Project (SCCWRP) has served as the chair of the Science Advisory Panel of the Southern California Wetlands Recovery Project (WRP) for nearly 30 years. In that role, SCCWRP led development of the Regional Strategy and the Regional Monitoring Program for the WRP.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA

The proposed project is consistent with the Conservancy's Project Selection Criteria, last updated on September 23, 2021, in the following respects:

Selection Criteria

1. **Extent to which the project helps the Conservancy accomplish the objectives in the Strategic Plan.**

See the "Consistency with Conservancy's Strategic Plan" section below.

2. **Project is a good investment of state resources.**

The Nature-based Coastal Resilience Strategy will inform prioritization of coastal resilience projects across Southern California. This project will leverage the WRP and CDSN to ensure use of the Strategy and Frameworks by decision makers and project leads. The Southern California Wetlands Recovery Project has been a successful model for regional collaboration on priority projects with its structure for technical experts and scientists, regulatory and funding agencies, and communities to collaborate on wetlands. The CDSN is also a successful model initiated and overseen by California Sea Grant since 2019, for cross-disciplinary collaboration and production of science-based management tools for dune ecosystems.

In addition, the Dune Restoration Frameworks will ensure that recently completed research funded by the University of California Office of the President will be applied to the design, construction, and adaptive management of dunes in Southern California.

3. **Project includes a serious effort to engage tribes. Examples of tribal engagement include good faith, documented efforts to work with tribes traditionally and culturally affiliated to the project area.**

CSG will invite members of California Native American tribes and tribal organizations to participate in development of the coastal resilience strategy and dune frameworks and in stewardship events implementing the strategy and frameworks. It is important to include the traditional ecological knowledge and stewardship practices of the California Native American tribes. Honoraria will be available to compensate time for representatives from tribes who already have disproportionate demands on their time.

4. Project benefits will be sustainable or resilient over the project lifespan.

The project will guide design, implementation and adaptive management of coastal resilience projects now and in the future. The potential future projects informed by the project will help communities be more resilient to sea level rise, coastal flooding, and erosion as they adapt to climate change.

5. Project delivers multiple benefits and significant positive impact.

The project will help communities prioritize coastal ecosystem restoration and natural infrastructure projects to increase resiliency to the impacts of climate change along the coast. The project will ensure current and future coastal resilience projects are designed, constructed and adaptively managed with the best available science and technical information.

6. Project planned with meaningful community engagement and broad community support.

Preliminary interviews with consultants, scientists, project leads, and agency representatives revealed consensus that regional collaboration is needed to consolidate best practices, identify and address gaps, integrate projects across the coastal landscape, and support professionals and communities to streamline this critical work. The project was developed by CSG in collaboration with representatives of the WRP, CDSN, and the SCCWRP. The strategy and frameworks will be developed in a highly participatory process by the people doing the work and communicated in various symposia and workshops for communities to apply to coastal resilience planning and projects.

PROJECT FINANCING

Coastal Conservancy	**$880,000**
Project Total	**$880,000**

The anticipated source of Conservancy funding for this project is an appropriation of the Safe Drinking Water, Wildfire Prevention, Drought Preparedness, and Clean Air Bond Act of 2024, also known as the 2024 Climate Bond or Proposition 4 (Public Resources Code Section 90000-95015). Section 92010, which describes the purposes of Proposition 4 coastal resilience funds, including grants and expenditures to protect, restore, and increase the resilience of beaches, bays, coastal dunes, wetlands, coastal forests, watersheds, trails, and public access facilities. The term “protection” includes restoration, preservation, and site monitoring as well as “those actions necessary to prevent harm or damage to persons, property, or natural, cultural, and historic resources[;] actions to improve access to public open-space areas[;] or actions to allow the continued use and enjoyment of property or natural, cultural, and historic resources” (PRC Section 90100(h)).

The project is consistent with this funding source because it will develop a coastal resilience strategy and dune frameworks to help communities develop coordinated and integrated coastal resilience projects to adapt to sea level rise and coastal erosion impacts along the Southern California coastline.

Unless specifically identified as "Required Match," the other sources of funding and in-kind contributions described above are estimates. The Conservancy does not typically require matching funds or in-kind services, nor does it require documentation of expenditures from other funders or of in-kind services. Typical grant conditions require grantees to provide any funds needed to complete a project.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION

The proposed authorization is consistent with Section 31113 of Chapter 3 of Division 21 of the Public Resources Code, regarding the Climate Ready Program, which authorizes the Conservancy to address the impacts and potential impacts of climate change on resources within the Conservancy's jurisdiction (Section 3113(a)).

Pursuant to Section 31113(b), the Conservancy is authorized to award grants to nonprofit organizations and public agencies to undertake projects that reduce greenhouse gas emissions and address extreme weather events, sea level rise, storm surge, beach and bluff erosion, salt water intrusion, flooding, and other coastal hazards that threaten coastal communities, infrastructure, and natural resources.

Pursuant to Section 31113(c), the Consrevancy must prioritize grants for projects that maximize public benefits and have one of serval purposes, including preservation and enhancement of coastal wetlands and natural lands, and flood risk reduction and enhancement of fish and wildlife habitat.

Consistent with these sections, the proposed project will be conducted by public agencies to help communities prioritize, design and implement coastal ecosystem restoration and natural infrastructure projects to increase resiliency to the impacts of climate change along the coast, thereby facilitating the preservation and enhancement of coastal wetlands and natural lands, and reducing flood risk and erosion from sea level rise.

CONSISTENCY WITH CONSERVANCY'S 2023-2027 STRATEGIC PLAN

Consistent with **Goal 3.2 Restore or Enhance Habitats**, the proposed project will ensure current and future coastal resilience projects are designed, constructed and adaptively managed with the best available science and technical information.

Consistent with **Goal 3.4 Cut Green Tape**, the proposed project will compile current and best science and technical information about nature-based coastal resilience projects that agencies may rely upon when evaluating and permitting projects in southern California.

CEQA COMPLIANCE:

The proposed project is categorically exempt from review under the California Environmental Quality Act (CEQA) pursuant to 14 California Code of Regulations Section 15306, which exempts basic data collection, research, and resource evaluation that will not result in a serious or major disturbance to an environmental resource. The proposed project will gather the best available

data, research, and stakeholder input. These efforts will not result in a serious or major disturbance to an environmental resource. Additionally, the proposed project is statutorily exempt from CEQA under 14 California Code of Regulations Section 15262, which exempts feasibility and planning studies for possible future actions. The proposed project consists of creating a strategy that sets a vision, identifies barriers and prioritizes actions to advance coastal resilience projects in Southern California and frameworks for siting, restoring and assessing dunes, both of which will be used to inform future nature-based coastal resilience projects.

Upon approval of the project, Conservancy staff will file a Notice of Exemption.