COASTAL CONSERVANCY

Staff Recommendation
December 1, 2022

**OAKLAND ESTUARY PARK SHORELINE ENHANCEMENT PLANNING PROJECT**

Project No. 22-086-01
Project Manager: Marilyn Latta

**RECOMMENDED ACTION:** Authorization to disburse up to $500,000 to the City of Oakland to conduct technical feasibility studies and prepare designs for nature-based shoreline enhancement and resilience features to be incorporated into the plans for the Oakland Estuary Park Renovation Project on the Oakland Estuary in the City of Oakland, Alameda County.

**LOCATION:** Shoreline of City of Oakland (Alameda County)

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*EXHIBITS*


Exhibit 1: Project Location Map

Exhibit 2: Project Area Map

Exhibit 3: Base Project Design and Additional Enhancement Areas

Exhibit 4: Site Photographs of Existing Conditions

Exhibit 5: Project Letters


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**RESOLUTION AND FINDINGS**

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

Resolution:

The State Coastal Conservancy (the "Conservancy") hereby authorizes the disbursement of up to five hundred thousand dollars ($500,000) to the City of Oakland ("the grantee") to conduct technical feasibility studies and prepare designs for nature-based shoreline enhancement and resilience features ("the project") to be incorporated into the plans for the Oakland Estuary Park Renovation Project on the Oakland Estuary.

Prior to commencement of the project, the 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.
3. A plan for acknowledgement of Conservancy funding.

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, regarding the Climate Ready Program.
2. The proposed project is consistent with the current Conservancy Project Selection Criteria and Guidelines.

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**STAFF RECOMMENDATION**

**PROJECT SUMMARY:**

Staff recommends that the Conservancy authorize disbursement of up to $500,000 to the City of Oakland to conduct technical feasibility studies and prepare designs for shoreline enhancement and resilience features (the project or proposed project) to be incorporated into the plans for the Oakland Estuary Park Renovation Project (Park Renovation Project) on the Oakland Estuary. (Exhibit 1).

The Park Renovation Project is currently being designed to renovate Estuary Park, located along the eastern waterfront area of Oakland's Jack London Square area. The existing park is four acres and includes the Jack London Aquatic Center (JLAC), a community facility providing youth and adult rowing programs, and a Conservancy-funded wheelchair-accessible dock that provides San Francisco Bay Water Trail launch access. The park also includes a once-popular multi-use area used for soccer and other team sports, and a group picnic area. As the park is in very poor condition and is underused, the City is leading a park renovation and expansion project, expanding the park to 11 acres. The Park Renovation Project will include shoreline improvements, improvements to the San Francisco Bay Trail, pedestrian and bicycle access from Oak Street and Embarcadero to Estuary Park, redesign of parking to provide for improved security, stormwater treatment, lighting, elevated public access to address sea level rise, and a new boat-storage and restroom building (Exhibit 3). The Park Renovation Project will also address known soil contamination and use a community-based design process to build consensus around key goals and components to be prioritized in the final design. The current designs for the Park Renovation Project lack nature-based shoreline resilience features (the designs include a gravel beach in one area but rip rap and hardscape features in the other shoreline areas). The proposed project consists of conducting technical studies and preparing designs for nature-based shoreline enhancement and resilience features that will be integrated into the Park Renovation Project (to replace the current Park Renovation Project designs for much of the shoreline within Estuary Park). The Park Renovation Project has reached 65% design. If awarded, the proposed grant funded project will design the shoreline enhancement

and resilience features to 65% design by December 2023. The City anticipates moving forward with final design for both projects through 2024 and starting construction in Summer 2025.

The goal of the proposed project is to develop designs for:

- A living shoreline along sections of Estuary Park that supports new intertidal and subtidal habitats that expand and enhance ecosystem functions and resilience.
- Dynamic adaptation solutions that respond to sea level rise over time at Estuary Park and that are transferable to a broader area.
- Nature-based shoreline protection of public access park and trail elements to account for and accommodate future sea level rise projections.
- Conceptual enhancement of the eastern shoreline of Estuary Park adjacent to the Jack London Aquatic Center

The Estuary Park site is located on filled historic marshlands and is therefore low-lying and susceptible to flooding during extreme events. With sea-level rise, the existing site will flood more frequently. The plans currently in development for Estuary Park address these issues by strategically locating key design elements in a vertical and horizontal location to address up to two feet of sea-level rise with adaptive capacity to 3.5 feet of sea-level rise or greater, consistent with state guidance (e.g., Ocean Protection Council 2018, San Francisco Bay Conservation and Development Commission 2021). This assumes a project lifespan of approximately 50 years. The Park Renovation Project includes replacing the existing ad-hoc concrete rubble along the shore with a new pocket beach constrained with engineered structures at either end. The design of the beach incorporates sufficient space and volume so that the coastal processes naturally allow for movement over time of the beach upward and landward while maintaining a minimum beach berm. Other sections of the shore that are currently armored would be raised by extending shore protection on the new slope, and dilapidated shore protection structures would be replaced with a new engineered structure, such as a rock revetment.

Because of the unrealized opportunity for nature-based shoreline features that would enable broader ecological enhancements to the upland areas, shoreline, and offshore aquatic areas, the project team seeks to undertake the proposed project but needs funding. The recommended grant will ensure that resilient shoreline features are designed to support and improve the ecological health of the greater estuary and Lake Merritt channel confluence. This highly visible and publicly used site is an excellent area to demonstrate nature-based climate adaptation concepts that are designed to increase habitat diversity and climate resiliency in a highly urban environment, provide public access that is closely adjacent to two underserved communities and downtown Oakland, and help protect the estuarine shoreline and adjacent park.

The project will improve the concepts that are currently in development by preparing designs to enhance the upland transition zone areas using native and resilient plantings that are important to local ecology, as well as designs for restoration and enhancement of intertidal and subtidal areas, including design of potential tidepools, oyster habitat, eelgrass planting, hybrid green-grey rock slope protection and seawall modifications, and other shoreline enhancements. These elements will be sited and designed to accommodate sea level rise and

its effects on the shore profile and depths. The City and project team anticipate that future conditions would induce erosion of the shore, thus shifting transitional habitats upward and landward, and submerging intertidal elements, and expanding the potential area of subtidal elements. The shoreline design approach will include developing suitable design criteria to anticipate a change in sea level and recommend metrics and triggers that can be used to periodically assess the performance of the design element and whether additional management is warranted.

The project will integrate the design of upland and upland transitional zones that are part of the human-centered and recreationally driven park program. The beach transition zone will experience future inundation but can host a balance of human and wildlife functions in the interim. Innovative strategies will be required to balance the needs to create a dynamic landscape that is maintainable, is habitat-rich, and accommodates people. Anticipated innovations include plant selection for climate related success, soil design, grading and landform design, maintenance strategies, retreat strategies, and the design of the human-accessible areas to discourage negative impacts to the habitat areas.

The proposed project includes preparing conceptual adaptation plan for the eastern shoreline adjacent to the JLAC and the eastern subtidal zone adjacent to the existing stepped bulkhead (Exhibit 4). The current conceptual design for this segment of the shoreline, adjacent to the JLAC, includes re-armoring with engineered riprap. The current or enhanced shoreline improvements along this segment is not currently funded and is not designated to be constructed along with the Park Renovation Project. The proposed project will study the sea level rise adaptation pathway for the JLAC facility, identify potential alternatives for shoreline protection, and prepare adaptation pathways for this segment so that it may be a stronger candidate for future construction grant funding.

The project will result in a demonstration of nature-based shoreline resilience design planning that is applicable to a broader area within the Oakland estuary and beyond to other urbanized bay shorelines; and can have a farther reach through increased knowledge transfer and awareness building with additional landowners and community groups such as the Oakland-Alameda Estuary Working Group and Bay Area Climate Adaptation Collaborative. The new technical resources and linked planning of integrated climate adaptation enhancements between the intertidal shoreline to subtidal aquatic habitats will be applicable to many nearby areas in the Oakland Estuary and will help advance nature-based adaptation work regionally in San Francisco Bay.

**Site Description:**

Estuary Park is centrally located along an actively developing shoreline segment of the Oakland-Estuary, which is located in the Oakland Inner Harbor and adjacent to Alameda Island. A number of bike/pedestrian paths including the Bay Trail connect Estuary Park to residential and commercial areas surrounding the park, including Jack London Square and Lake Merritt.

Currently, the estuary, including Lake Merritt and the Lake Merritt Channel, provides habitat for many species of invertebrates, fish, shorebirds, and waterfowl. A number of listed species occur in the San Francisco Bay estuary and only minimally utilize the Oakland Estuary. The fractured mosaic of fringe tidal wetlands, tidal flats and open water are an important stopover for migratory birds on the Pacific Flyway and provide habitat for shoreline plants and seaweeds, native oysters, fish, birds, and other wildlife. But this highly urbanized area also includes derelict landfill and denuded shoreline and aquatic zones that have the potential to be revitalized and provide higher quality shoreline open space and future climate resilience.

The specific site for the additional enhancement areas includes the intertidal shoreline and subtidal areas that are along the southern and eastern edges of the full 11-acre Park Renovation (Exhibit 3).

**Grant Applicant Qualifications:** The City of Oakland's Project and Grant Management Division (PGM) staff, composed of seasoned project managers, are responsible for implementing major capital improvement projects for the City. Staff have extensive experience in all aspects of design, construction, and management of various project types, including trails, parks, waterways, streetscape, pathways, utilities, storm water systems, buildings and structures (park facilities, libraries, fire stations, etc.). Currently, PGM's nine project managers are managing capital improvement projects amounting to more than $100 million in project cost. In addition, the City has wide-ranging staff resources to provide support in implementing projects: engineering, design management, environmental assessments, project planning, scheduling, budgeting, bidding, competitive bid contracting, testing, surveying, and construction management resources. PGM will draw on these resources to complete the project, working together with project stakeholders to provide high quality, professional, equitable and timely project designs and constructed projects that serve the community. There is a dedicated Grant Administrator, Grant Manager and an Accounting group that have experience in the grant fiscal administration of the grant.

**CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA & GUIDELINES:**

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

**Required Criteria**

1. **Extent to which the project helps the Conservancy accomplishes 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.**

This project is a good investment of state resources because it builds on and leverages prior state-funded work with sea level rise risk assessments and shoreline restoration and access in Alameda County. It is meeting a major need in including shoreline resilience components in an urban park renovation project, designing multiple green infrastructure features that integrate with planned shoreline access and uses, including a sand and gravel beach that will

complement the official Water Trail site and pier at JLAC, to also provide additional kayak and small boat launch access to the Oakland Estuary. The project is feasible and the budget is reasonable, considering the necessary resources needed for ecological studies, shoreline enhancement designs, and community engagement. The project advances state-led calls for nature-based climate adaptation solutions and will advance the Natural and Working Lands Strategy recommendations for developed lands and wetland and estuarine habitats. The project leverages non-state resources from the City through Measure DD funding.

In addition, this project helps to advance the planning and protection of natural resources and shorelines in San Francisco Bay and will provide a model for sea level rise adaptation design planning in other cities and counties. The project team is participating in the collaborative Oakland-Alameda Estuary Working Group, a muti-agency voluntary collaboration of cities, Alameda County, state and federal agencies, and community groups and consultants who are sharing information on sea level rise and climate change adaptation and transferring knowledge and information about project design solutions and planning for resilience.

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

The project is planned to address existing park dilapidation and shoreline erosion and includes a project life of 50 years to 2070. Living shorelines, by definition, aim to address and adapt to increasing sea level rise rates by restoring natural shoreline habitats and processes. This planning project will use best available sea level rise projections from NOAA's Sea Level Rise Guidance (2021), Ocean Protection Council Sea Level Rise Guidance (2018, updated 2020), San Francisco Bay Conservation and Development Commission's Joint Platform (2021), the 4$^{th}$ California Climate Assessment (2017), and other sea level rise and climate change guidance documents. The adaptation methods, specific design considerations, and expected benefits will be described within the framing of these sea level rise scenarios and recommended best practices for nature-based climate adaptation designs.

**4. Project delivers multiple benefits and significant positive impact.**

Although the project planning focus is on developing shoreline enhancement designs, it will also consider co-benefits where possible to alleviate multiple stressors within communities along the Oakland shoreline, such as improving public health through access to nearby shoreline open space, addressing the need for additional recreational amenities, reductions in shoreline fill and concrete, access to parks and recreation, habitat enhancement and other environmental benefits.

This planning project will include public outreach with Oakland residents from underserved communities nearby, and other stakeholders, non-profit organizations, and input from a technical advisory group, The designs will address shoreline climate adaptation, reducing flooding, and enhancing Bay Trail and Water Trail access at the site.

**5. Project planned with meaningful community engagement and broad community support.**

City of Oakland Public Works department is leading the Park Renovation Project at the direction of the City Council. The park has long been identified in local plans for major renovations including the Estuary Policy plan, The Oakland Waterfront Trail Plan, planning for Brooklyn Basin, and the Downtown Specific Plan. The project also relates to the Lake Merritt Master

Plan. Measure DD, the primary funding for the park project was passed by Oakland voters with record approval. Some of these public efforts go back more than two decades.

The full Estuary Park project began in 2018 with an intensive community engagement process; then went on hold from January 2019 until March of 2021. The City restarted the project with a new design team, building on the community input received in 2018 and continuing engagement in 2021. Four community meetings, four stakeholder meetings, an extensive online survey, mailing lists, and project website help maintain open communication with multiple community groups and residents. Through the park design process, multiple community engagement events have been held where input from local residents and those from local disadvantaged neighborhoods (San Antonio and Chinatown) was solicited. At the 2021 open house, recommendations for how to address sea level rise and ecological restoration were of great interest.

The project will include a Technical Advisory Committee with City of Oakland Departments including Parks, Recreation & Youth Development, Planning & Building, Public Art Program, and Fire. Supporting and involved agencies include the Bay Conservation and Development Commission, and Oakland-Alameda Estuary Working Group which includes representatives from cities, county, state, federal agencies and local community groups and non-profits. Additional community partners and non-profits that support the project include Measure DD (Bond for Clean Water and Safe Parks) Coalition, Jack London Aquatic Center, East Bay Rowing Club, and the Jack London Improvement District.

The community feedback received through the engagement process has highlighted a priority to focus on resilient shoreline improvements and public access. Presentations to individual community groups continue today, and this grant will help support additional engagement efforts as the designs continue to develop to include a more robust habitat restoration design.

**PROJECT FINANCING**

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| **Coastal Conservancy** | **$500,000** |
| **Project Total** | **$500,000** |

Conservancy funds are anticipated to come from an FY2021/22 appropriation to the Conservancy from the “California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access for All Act of 2018” (Prop 68, Public Resources Code Division 45, Chapters 1-13, Sections 80000-80173). In particular, Chapter 10 of Prop 68 allocates funds to the San Francisco Bay Area Conservancy Program for projects to improve a community’s ability to adapt to the unavoidable impacts of climate change; improve and protect coastal and rural economies, agricultural viability, wildlife corridors, or habitat; develop future recreational opportunities; or enhance drought tolerance, landscape resilience, and water retention. (Pub. Res. Code sections 80130 and 80133(b)). In addition, Section 80008(a)(2) states that at least 15 percent of the available funds shall be allocated for projects serving severely disadvantaged communities.

The project is within the San Francisco Bay Area Program and will be undertaken pursuant to the Climate Ready Program established in Chapter 3 of the Conservancy's enabling legislation. Consistent with Chapter 10 of Proposition 68, the project seeks to improve a community's ability to adapt to the unavoidable impacts of climate change, specifically by supporting a community-informed process to understand and consider a range of nature-based options to address sea level rise and flooding in one of the Bay Area's most vulnerable areas. The project will be sited on the Oakland shoreline, closely adjacent to two "severely disadvantaged communities" ("SDAC's") as defined by Proposition 68. Consistent with Section 80008(a)(2), funds for the project may count towards the 15 percent SDAC requirement. The Conservancy is tracking its SDAC allocations. Consistent with Section 80008(b)(1), the project will help identify a suite of sea level rise adaptation options. The project is therefore consistent with the intended funding source.

The total cost for planning and permitting the Park Renovation Project, including the cost of the proposed project, is $3,000,000, of which $2,500,000 will derive from City of Oakland Measure DD.. The Coastal Conservancy does not typically require matching funds, nor does it require documentation of expenditures from other funders. Typical grant conditions require grantees to provide any funds needed to complete the project.

The proposed project was selected through a competitive grant process under the Conservancy's "Proposition 68 Guidelines San Francisco Bay Area Conservancy Program - Climate Adaptation Funds" adopted August 22, 2019. The proposed project meets the evaluation criteria in the Proposition 68 Guidelines as described in detail in this section, the "Project Summary" section above, and in the "Consistency with Conservancy's Project Selection Criteria" section above

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

Section 31113 of Chapter 3 of Division 21 of the Public Resources Code authorizes the Conservancy to address the impacts and potential impacts of climate change on resources within the Conservancy's jurisdiction (Section 31113(a)). The proposed project will address resources within the Conservancy's jurisdiction because it will be undertaken within one of the nine counties of the San Francisco Bay Area (Chapter 4.5 of Division 21 of the Public Resources Code).

Section 31113(b) authorizes the Conservancy to award grants to nonprofit organizations and public agencies to undertake projects that include reducing greenhouse gas emissions, and addressing extreme weather events, sea level rise, flooding, and other coastal hazards that threaten coastal communities, infrastructure, and natural resources. Consistent with this section, the proposed project will provide a grant to a public agency to conduct technical studies and shoreline enhancement design planning with a climate resilience focus.

Section 31113(c) states that the Conservancy must prioritize grants for projects that maximize public benefits and have one of several purposes, including reducing emissions of greenhouse gases, preserving and enhancing natural lands, conserving biodiversity, and providing recreational opportunities. Consistent with this section, the proposed project maximizes public

benefits (see the discussions of investment of State resources, and multiple public benefits in the "Project Selection Criteria" section above) and will develop designs to enhance natural lands consistent with these purposes.

Section 31113(d) states that when allocating funds made available pursuant to Chapter 10 of Proposition 68 the Conservancy shall prioritize projects that (A) use natural infrastructure, (B) provide multiple public benefits, and (C) give consideration to projects in a variety of ecosystems. Consistent with this section, the proposed project will factor in these criteria when identifying and considering specific sea level rise adaptation options, which are expected to be multi-benefit and will included options based on natural infrastructure.

**CONSISTENCY WITH CONSERVANCY'S 2018-2022 STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):**

Consistent with **Goal 8, Objective B**, the project will plan for projects to increase resilience to sea level rise or other climate change impacts using nature-based solutions.

Consistent with **Goal 12, Objective C**, the project will plan for enhancement of shoreline and subtidal habitats.

**CEQA COMPLIANCE:**

The proposed authorization is statutorily and categorically exempt from review under CEQA pursuant to CEQA Guidelines (14 California Code of Regulations) Sections 15262 and 15306, which exempt projects that involve feasibility and planning studies for possible future actions that have not yet been approved; and basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource.

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