COASTAL CONSERVANCY

Staff Recommendation
June 15, 2017

Bay Area Resilient By Design Challenge
Project No. 17-014-01
Project: Marilyn Latta

RECOMMENDED ACTION: Authorization to disburse up to $349,930 to the Trust for Conservation Innovation to carry out the Bay Area Resilient By Design Challenge, a regional design challenge to generate innovative and feasible solutions to protect bay shorelines and habitat and increase resilience to sea level rise in the San Francisco Bay Area.

LOCATION: San Francisco Bay shoreline, all nine counties

PROGRAM CATEGORY: San Francisco Bay Area Conservancy

EXHIBITS

Exhibit 1: Project Location Map

Exhibit 2: Project Figures

Exhibit 3: Project Letters

RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31113 and 31160-31165 of the Public Resources Code:

"The State Coastal Conservancy hereby authorizes disbursement of up to three hundred forty nine thousand nine hundred thirty dollars ($349,930) to the Trust for Conservation Innovation to carry out a regional design challenge to generate innovative and feasible solutions that protect bay shorelines and habitat and increase resilience to sea level rise in the San Francisco Bay Area, subject to the following condition:

Prior to the disbursement of funds, the grantee shall submit for the review and approval of the Conservancy's Executive Officer a final work program, schedule, budget, names and qualifications of any project contractors, and a plan for acknowledging Conservancy funding."

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 section 31113 and Chapter 4.5 of Division 21 of the Public Resources Code, regarding addressing the impacts and potential impacts of

climate change on resources (§ 31113), and the resource and recreational goals in the San Francisco Bay Conservancy Program (Ch. 4.5).

2. The proposed project is consistent with the current Conservancy Project Selection Criteria and Guidelines.
3. The Trust for Conservation Innovation 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."

PROJECT SUMMARY:

Staff recommends that the Conservancy authorize disbursement of up to $349,930 to the nonprofit Trust for Conservation Innovation (TCI) to carry out the "Bay Area Resilient By Design Challenge" (RBDC), a design contest to generate ten innovative, feasible plans for protecting bay shorelines and habitat and increasing resilience to sea level rise in the San Francisco Bay Area. RBDC will be an open call to experts worldwide to help combat the threat of climate change and sea level rise in the Bay Area. A goal of the RBDC is to cause ten interdisciplinary teams to work with Bay Area communities to design ten projects that will protect bay shorelines and bay ecology at ten different locations to help make the Bay Area more resilient.

The RBDC will invite designers, ecologists, architects, hydrologists, developers and infrastructure finance specialists from around the world to work closely with local stakeholders to create creative ecological design solutions that enable the baylands and shoreline communities to become more resilient to the effects of rising sea levels, increasing storms, and flooding and seismic vulnerabilities. Design teams will participate in a collective research phase, working together with local experts to understand the vulnerabilities and advance regional understanding of strategies to make Bay Area communities and ecological and urbanized assets more resilient into the future. These strategies will be developed in partnership with local and regional residents, businesses, community-based organizations, and political leaders and bring multiple benefits to those communities, to the baylands, and the region while protecting at-risk populations, enhancing local ecosystems, and bolstering critical infrastructure.

In the era of sea-level rise an increased focus on innovative, collaborative solutions with multiple benefits is essential both to protect the ecological health in the bay, and the surrounding communities. Fortunately, the Bay Area and the Coastal Conservancy have a successful history of bringing together experts and community advocates to develop and implement innovative, creative solutions to address our most challenging problems. The Baylands Ecosystems Habitat Goals Science Update launched a new era of Bay stewardship, leading to a significant increase in focus, coordination and eventually resources to restore the ecological health of the Bay. The development and passage of Measure AA was an unprecedented commitment at a local level to make a substantial investment in the future of the Bay. In order to ensure the region continues with this progress in the face of the threat of climate change there is a need to leverage and build upon opportunities for enhanced stewardship in new and creative ways.

The RBDC will increase regional understanding of the vulnerabilities and effects of sea level rise on the health of San Francisco Bay and the strategies to address those issues. Regionally coordinated research will increase the ability of jurisdictions around the Bay to plan for shoreline improvements that can extend beyond the ten final designs from the challenge. TCI will take the following actions to carry out the RBDC:

- The first step is a research phase that will entail: a) conducting additional research on the effects of sea level rise on the Bay to build on the work being done around the region by groups like the San Francisco Estuary Institute (SFEI), the Bay Conservation and Development Commission (BCDC), the Conservancy, and local jurisdictions and organizations; and b) compiling relevant research and planning documents in an easily accessible public source.
- Ten specific sites to be the subject of the RBDC designs will be chosen following an evaluation of all potential sites taking into account ideas and strategies developed through systematic, science-based reports such as the *Baylands and Climate Change: What We Can Do* update to the Baylands Ecosystems Goals.
- Ten design teams will be selected and matched with the sites and local constituents through the work of a Research Advisory Committee that will look to pair team strengths with appropriate site challenges and opportunities.
- Each of the 10 design teams will develop a project that will include a focus on multi-stakeholder, multi-benefit problem solving strategies; recognition of the need for a regional strategy; a focus on equitable and measurable community engagement and integration into existing sea level rise action plans.
- Resulting designs will be judged by an expert jury and awarded prizes for the competition based on their success in meeting design and community goals. There is the potential for all designs are successful. While TCI doesn't have implementation funds secured, it is the intent that all designs be feasible and supported by the community such that the designs could be implemented in the future.

The requested Conservancy funding will be used by TCI to conduct:

- program design for the research phase,
- infrastructure finance analysis,
- local ecological research support at sites,
- local community engagement,
- partnerships with local organizations,
- youth and adult engagement,
- communications, messaging, and documentation of ecological design work,
- project administration.

The RBDC will be steered by an Executive Committee comprised of representatives from local, regional, and state agencies, community based organizations, and elected officials, including Conservancy staff who have been centrally involved in the initial planning and formation of the

specific approach to the design challenge and coordination with local agencies and stakeholders. The Committee additionally includes representatives Bay Area Regional Collaborative, San Francisco Estuary Institute (SFEI), Rebuild by Design (New York)**,** Bay Area Council**,** Trust for Conservation Innovation**,** Cities of San Francisco, Richmond, Oakland and San Jose**,** Center for Social Inclusion**,** San Francisco Planning and Urban Research (SPUR), and nonprofit Green for All.

RBDC will produce ten unique projects at ten shoreline sites located across the region (with at least one in each of the nine Bay Area counties), which will address sea level rise vulnerabilities faced by Bay Area communities. The sites will be selected through a transparent, public, data-driven research process that will identify locations that represent a range of vulnerabilities Bay Area communities are facing due to climate change, while also being locations that can offer multiple benefits to the region and specific communities as a result of a robust inter-disciplinary design process. Both the selection of sites and the development of the site designs will strive to increase access to recreational opportunities and natural resources for Bay Area residents.

Final designs will be conceptual and comprehensive, with a focus on being feasible, implementable, and replicable to the extent possible. Design teams will work closely with local community and elected leaders, funding agencies and other experts to develop financing plans and ensure that designs meet the criteria of RBDC. The final designs will therefore demonstrate the support of local communities and governments, and will address cultural, economic and ecological factors to strengthen communities.

The objectives of the design challenge are to develop and highlight new strategies in sea level rise adaptation, as well as promote research, education and outreach necessary to developing communities' capacity to adapt to sea level rise in all nine counties. An additional key objective is to engage and involve underserved communities and increase their equity in sea level rise planning in the Bay Area.

The Bay Area is an ideal environment for fostering the implementation of Resilient by Design projects. Bay Area public, private, and nonprofit leaders and their organizations have started to implement specific policies, programs, and projects to build resilience. RBDC will provide a much-needed vehicle to amplify and complement current efforts by bringing together government policymakers and practitioners, world-class design and engineering experts, nonprofit and community based leadership, emerging next-generation leaders and neighborhood stakeholders, to move these efforts toward further design ideas and coordination.

TCI is a charitable umbrella organization exempt from federal taxation under Internal Revenue Code section 501(c)(3). TCI, based in Oakland, will work closely with the Executive Committee to administer the RBDC, providing fiscal management, contracts and grants management, advisory support, and responsive payment to vendors and partners. TCI is committed to accelerating impact for innovative initiatives focused on protecting and fostering a healthy, sustainable, resilient and equitable world. TCI has a portfolio of approximately 50 projects at the intersection of four interwoven areas of impact: Resilient Communities, Secure Natural Resources, Healthy Planet and People, and Sustainable and Equitable Economies. Although touching on all four areas, the RBDC fits primarily within the area of Resilient Communities in which TCI's priorities are:

- Governance and Planning: Local and regional governance and planning teams have dedicated resiliency resources and are linked to national policy and best practices for adaptive strategies, including but not limited to climate resilience.
- Infrastructure: Low environmental impact infrastructure systems foster urban/rural linkage and promote integrated approaches to livelihood protection, climate change strategies, and disaster mitigation.
- Hazard Prevention and Protection: Local community assets are secure and systems are in place for hazard prevention and protection, early warning systems, contingency and emergency planning and, if necessary, for effective and efficient rebuilding.

Project History: In 2007, the Conservancy incorporated specific measures to address climate change in its strategic planning process. In 2009, the Conservancy adopted a comprehensive Climate Change Policy that informs all aspects of its work and amended its Project Selection Criteria to ensure that all Conservancy projects are designed with climate change in mind. Then, in 2012, the legislature and governor empowered the Conservancy with new authority (SB 1066, Lieu) to prepare for and adapt to the effects of climate change and take action against its causes, by adding Public Resources Code section 31113. Following the adoption of SB 1066 and the addition of section 31113, the Conservancy quickly responded with the launch of its Climate Ready Program, and Climate Ready Grants, through which the Conservancy has held three grant rounds.

This new potential grant for RBDC to advance sea level rise solutions and strategies in all nine counties also aligns with the Conservancy's priorities and past efforts related to climate change work. The planning conversations for this design challenge started in 2015, and included input from a variety of stakeholders baywide, including the Conservancy, BCDC, and the cities involved in the Rockefeller Foundation's "100 Resilient Cities Initiative".

The project is significantly supported by the Rockefeller Foundation, and is modeled after the successful "Rebuild By Design" initiative in the New York-New Jersey-Connecticut region that followed Hurricane Sandy. CNN named Rebuild by Design "one of the 10 best ideas of 2013." As an interdisciplinary, design-driven effort, the final design solutions in the New York region developed strong community support for major infrastructure projects that demonstrate compelling design solutions to enhance communities and the environment in the wake of climate uncertainties. Rebuild by Design is a key partner in helping to get RBDC off the ground, by helping to establish a successful framework for a successful and inclusive process, and applying best practices and lessons learned from the east coast experience.

PROJECT FINANCING

Coastal Conservancy	$349,930
Santa Clara Valley Water District	$100,000
Rockefeller Foundation	$4,663,801
Project Total	**$5,113,731**

The anticipated source of Conservancy funds is the FY 16/17 "Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006" (Proposition 84), Pub. Resources Code §§ 75001 *et seq.*. These funds are allocated to the Conservancy for protection of beaches, bays and coastal waters, including projects to protect and restore the natural habitat values of coastal waters and lands and projects that promote access to and enjoyment of coastal resources (Pub. Resources Code § 75060). Proposition 84 funds are available for San Francisco Bay Area Conservancy Program projects under Public Resources Code, Division 21, Chapter 4.5 (Public Resources Code section 75060(c)). The proposed project is an appropriate use of Proposition 84 funds because it will promote protection and enhancement of natural habitats of San Francisco Bay, as well as access to and enjoyment of, the coastal resources of San Francisco Bay, by developing implementable design solutions to the loss of natural habitats and public accessways that are predicted to result from climate change. The proposed project is consistent with Chapter 4.5 as described in the Consistency with Conservancy's Enabling Legislation section of this report.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

The proposed project is consistent with Public Resources Code sections 31113, regarding projects to address the impacts of climate change, and 31160-31165 (Chapter 4.5 of Division 21), regarding projects carrying out the objectives of the San Francisco Bay Area Conservancy Program. There will be ten designs generated, including at least one design and site within each of the nine San Francisco Bay counties.

Section 31113: Address Impacts of Climate Change.

Pursuant to PRC Section 31113, the Conservancy is authorized to address the impacts and potential impacts of climate change on resources within its jurisdiction, and may undertake projects that include, but are not limited to, reducing greenhouse gas emissions, addressing 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. Consistent with this section, the proposed project will address the potential impacts of climate change by designing solutions to sea level rise that enhance and protect coastal (bayshore) wetlands and shorelines, reducing coastal (bayshore) hazards due to sea level rise and storm surge, and reducing beach and bluff erosion, in an effort to protect coastal communities, infrastructure, including public access infrastructure, and natural resources from the impacts of sea level rise.

Chapter 4.5: San Francisco Bay Area Conservancy Program

Under Section 31162(b), the Conservancy may undertake projects and award grants in the nine-county San Francisco Bay Area to achieve the goal of protecting, restoring and enhancing natural habitats. Consistent with this section, the proposed project consists of work that will generate sound scientific designs for projects that will help protect, restore and enhance natural shoreline habitats within the Bay Area.

Under Section 31163(a), the Conservancy is directed to cooperate with local government, BCDC, other regional government bodies, and other interested parties in identifying and adopting long-term resource goals for San Francisco Bay area. The design challenge will include design recommendations that came about from the collaborative planning of agencies that developed the *Baylands Ecosystem Habitat Goals Science Update 2015* and the *San Francisco Bay Subtidal Habitat Goals* (2010), including the Conservancy, BCDC, National Oceanic and Atmospheric Association (NOAA), and the San Francisco Estuary Partnership, and many other agencies and government bodies in the Bay Area.

The proposed project is appropriate for prioritization under the selection criteria set forth in Section 31163(c) in that it: (1) is consistent with the *San Francisco Bay Subtidal Habitat Goals* report, the *Baylands Ecosystem Habitat Goals Science Update 2015*, and the *San Francisco Bay Plan* (2008)("Bay Plan"), as described below; (2) involves the coordination of environmental solutions across several different agencies and many different jurisdictions within the San Francisco Bay Area, as mentioned above; (3) will be implemented in a timely manner; (4) provides opportunities for habitat improvement, flood and sea level rise mitigation benefits that could be lost if the projects are not implemented quickly; and (5) includes outside grant funds from other sources of funding or assistance.

In addition, under Section 31165, the Conservancy may award grants for activities that are compatible with the preservation, restoration, or enhancement of ocean, coastal and bay resources. The proposed project is an activity that will generate designs for projects that will help preserve and enhance bay resources.

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

The proposed project assists the Conservancy with meeting a number of its 2013-2018 Strategic Plan Goals and Objectives. Relevant Strategic Plan goals are listed below.

Consistent with **Goal 7, Objective 7B,** the project will utilize information from site-specific, regional and landscape-level vulnerability assessments from sea level rise and extreme storm events, and develop strategies to address threats to coastal communities and public infrastructure in ways that protect natural resources and provide maximum public benefits.

Consistent with **Goal 7, Objective 7D**, the project will help facilitate future implementation of pilot adaptation projects that reduce hazards from sea level rise and extreme storm events, and that protect natural resources and maximize public benefits.

Consistent with **Goal 9, Objective 9A**, the project will support programs and events that improve public understanding of coastal resources.

Consistent with **Goal 11, Objective 11A**, the project will help facilitate future protection of wetlands, managed wetlands, seasonal wetlands, riparian habitat, and subtidal habitat.

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:**
    a. The proposed project is consistent with the state plans and policies listed below, since the project seeks to enhance resilience to climate change:
        i. *San Francisco Bay Subtidal Habitat Goals Report* (2010, jointly authored by the State Coastal Conservancy, California Ocean Protection Council, NOAA NMFS and Restoration Center, San Francisco Bay Conservation and Development Commission, and San Francisco Estuary Partnership), which is a 50-year Conservation Plan for submerged habitats in San Francisco Bay, which includes recommendations for climate adaptation such as testing living shorelines approaches.
        ii. *Baylands Ecosystem Habitat Goals Science Update* (2015, led by the Conservancy with more than 100 contributing entities), which provides a summary of projected climate changes to the San Francisco Estuary and specific recommendations for regional actions to adapt to sea level rise.
        iii. *Executive Order S-13-08* (2008, Arnold Schwarzenegger**,** Governor of the State of California), which instructs all state agencies to plan and consider a range of sea level rise scenarios to assess project vulnerability and to, where feasible, reduce expected risks and increase resiliency to sea level rise for all projects in area of sea level rise risk.
        iv. *Safeguarding California: Reducing Climate Risk* (2014 update to the 2009 *California Climate Adaptation Strategy* which seeks to "support hazard mitigation by investing in green infrastructure and other protective structures to address sea level rise, managed shoreline retreat, stabilize river banks and restore and create wetlands…" (p.70), and also seeks to improve management practices for coastal and ocean ecosystems and resources by including climate adaptation strategies.
4. **Support of the public:** The proposed project enjoys broad support throughout the San Francisco Bay Area, including support from local elected officials and municipalities (see Exhibit 4, Project Letters).

5. **Location:** The proposed project is located within the San Francisco Bay shoreline within the nine-county San Francisco Bay region.
6. **Need:** Without funding provided by the Conservancy, the project would likely be unable to fully incorporate the full range of ecological concerns that centrally fall within the Conservancy's purview. In addition to funding, Conservancy staff expertise will provide critical direction to the project.
7. **Greater-than-local interest:** The project is located throughout the nine county Bay Area, and involves developing solutions to sea level rise, as well as new types of public engagement and coordination with multiple sectors, so the lessons learned and best practices from the design process can be leveraged and translated across the coast of California.
8. **Sea level rise vulnerability:** The proposed project addresses the impacts of sea-level rise directly as a project goal. Funding the proposed project would be a proactive step to protect the San Francisco Bay Area's bayshore communities and economy, as well as their natural resources, public health, and recreational amenities from the impacts of sea level rise.

Additional Criteria

9. **Urgency:** Due to the threat of rapidly-accelerating sea level rise, and the consequent need to protect the San Francisco Bay Area's assets from future impacts, it is urgent that we act now to implement projects, such as RBDC, that seek to develop new strategies and planning processes to adapt to sea level rise.
10. **Resolution of more than one issue**: The proposed project benefits both restoration and natural resource protection goals, as well as sea level rise adaptation goals, that protect the natural, built, and human communities of the San Francisco Bay Area.
11. **Leverage**: See the "Project Financing" section above.
12. **Innovation**: The proposed project will develop innovative new strategies for sea level rise adaptation planning.
13. **Readiness**: The proposed project is already entering its initial stages, and if and when Conservancy funding is authorized, and can enhance its scope in a timely manner to better ensure project success.
14. **Realization of prior Conservancy goals**: "See "Project History" above."
15. **Return to Conservancy**: See the "Project Financing" section above.
16. **Cooperation**: The proposed project leads are collaborating with other entities to assist with community outreach and engagement, and intend to foster cooperation across multiple institutional and natural boundaries to address the impacts of climate change.
17. **Vulnerability from climate change impacts other than sea level rise:** The proposed project is focused on climate change adaptation with a goal of increasing the resilience of the Bay Area to projected climate change impacts, including sea level rise, increased storm surge and shoreline erosion, and shifting temperature and salinity regimes.

CONSISTENCY WITH SAN FRANCISCO BAY PLAN:

The proposed project is within the jurisdiction of the San Francisco Bay Conservation and Development Commission (BCDC), and is consistent with the policies of BCDC's Bay Plan. The proposed project is consistent with Part IV, Climate Change policies, because it will address the resilience of the project areas to climate change, and the capacity of the design areas to adapt to climate change impacts and sea level rise.

COMPLIANCE WITH CEQA:

Conservancy staff has determined that the proposed project is statutorily and categorically exempt from the California Environmental Quality Act (CEQA).

The project involves only planning, research, and data gathering efforts for future projects that have not yet been approved or funded. CEQA Guidelines, 14 California Code of Regulations, section 15306 exempts projects that involve basic data collection, research, experimental management, and resource evaluation activities that do not result in a serious or major disturbance to an environmental resource. CEQA Guidelines section 15262 exempts projects involving feasibility or planning studies for possible future actions that have not yet been approved, adopted, or funded if environmental factors are considered. The proposed project entails data gathering and research that will not disturb environmental resources and planning work that will take into account environmental factors. Accordingly, the proposed project is exempt from CEQA.

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