SAN FRANCISCO BAY RESTORATION AUTHORITY

Staff Recommendation
June 12, 2026

**BRISBANE LIVING SHORELINE**

Project No. RA-052
Project Manager: Alexis Barrera

**RECOMMENDED ACTION:** Authorization to disburse up to $962,500 to the San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline) to undertake the Brisbane Living Shoreline Project, consisting of collecting baseline ecological and physical data, preparing 30% designs and environmental review documentation, conducting regulatory engagement and community engagement, and preparing draft permit applications for restoration of eelgrass and native oyster habitat along approximately 1.5 miles of the Brisbane shoreline in San Mateo County.

**LOCATION:** City of Brisbane, San Mateo County; Measure AA Region: West Bay

**MEASURE AA PROGRAM CATEGORY:** Vital Fish, Bird and Wildlife Habitat Program

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***EXHIBITS***

Exhibit 1: Project Location and Site Map

Exhibit 2: Project Photographs

Exhibit 3: Project Letters

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**RESOLUTION AND FINDINGS**

Staff recommends that the San Francisco Bay Restoration Authority adopt the following resolution and findings:

Resolution:

The San Francisco Bay Restoration Authority hereby authorizes the disbursement of an amount not to exceed nine hundred sixty two thousand five hundred dollars ($962,500) to San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline, "the grantee") to undertake the Brisbane Living Shoreline Project, consisting of collecting baseline ecological and physical data, preparing 30% designs and environmental review documentation, conducting regulatory engagement and community engagement, and preparing draft permit applications for restoration

of eelgrass and native oyster habitat along approximately 1.5 miles of the Brisbane shoreline in San Mateo County ("the project").

Prior to commencement of the project, the grantee shall submit for the review and written approval of the Executive Officer of the Authority the following:

1. A detailed work program, schedule, and budget.
2. Names and qualifications of any contractors to be employed in carrying out the project.
3. A plan for acknowledgement of Authority funding.
4. Evidence that all permits and approvals required to implement the project have been obtained.

Findings:

Based on the accompanying staff recommendation and attached exhibits, the San Francisco Bay Restoration Authority hereby finds that:

1. The proposed authorization is consistent with The San Francisco Bay Restoration Authority Act, Gov. Code Sections 66700-66706.
2. The proposed authorization is consistent with The San Francisco Bay Clean Water, Pollution Prevention and Habitat Restoration Measure (Measure AA).

## STAFF RECOMMENDATION

### PROJECT SUMMARY:

Staff recommends the San Francisco Bay Restoration Authority authorize a grant of $962,500 to San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline) to undertake the Brisbane Living Shoreline Project, consisting of collecting baseline ecological and physical data, preparing 30% designs and environmental review documentation, conducting regulatory engagement and community engagement, and preparing draft permit applications for restoration of eelgrass and native oyster habitat along approximately 1.5 miles of the Brisbane shoreline in San Mateo County (Exhibit 1) ("the project").

The Brisbane shoreline is one of the few locations in San Mateo County identified by regional scientific assessments as having strong potential for restoration of subtidal habitats, including eelgrass meadows and native Olympia oyster beds. Eelgrass along this section of shoreline is currently absent and native oyster settlement remains low due to a history of shoreline hardening. The loss of oysters and eelgrass reduces water quality and eliminates important structural habitat for aquatic invertebrates and fish. As a result, the shoreline becomes less capable of supporting diverse communities of fish, birds, and invertebrates.

To start addressing these challenges, the project will complete the scientific and technical groundwork needed to support a future full-scale living shoreline restoration effort. Based on

regional assessments and early technical evaluations, the Brisbane shoreline could ultimately support approximately 100 acres of eelgrass and 50 acres of native oyster habitat across the project's 1.5-mile reach. Work will begin with detailed site-specific surveys, including bathymetric mapping of subtidal areas to identify appropriate depths for eelgrass and oyster habitat, and geotechnical investigations to assess substrate stability for potential reef structures and eelgrass planting zones.

The project will also document existing ecological conditions through biological studies across multiple species groups. This will include quarterly monitoring of native oyster recruitment to understand settlement patterns, seasonal bird surveys to track species presence and habitat use along the shoreline, and assessments of subtidal and intertidal communities to identify what species occur, how they are distributed, and what conditions may be limiting their abundance. These studies will help determine the site's current ecological health and its capacity to support restored habitats.

The project will also conduct multi-year physical monitoring to understand the environmental conditions most important to eelgrass and oyster restoration success. Sensors will be deployed to record temperature, salinity, and wave heights to document how water conditions vary across seasons and storm events. Additional sensors will measure water currents to map circulation patterns that affect larval transport, sediment movement, and water quality. Sediment pins and markers will be installed to measure erosion and deposition over time, and the project will assess the frequency and depth of flooding under different tidal and storm conditions.

These ecological and physical data sets will be combined with updated bathymetric mapping to develop a detailed picture of the physical forces shaping the nearshore environment. This information will guide decisions about where eelgrass and oyster habitats are most likely to thrive and how restored habitat elements, such as oyster reefs or eelgrass beds, could alter wave conditions, reduce erosion, and improve shoreline stability.

Using these field data, OneShoreline and its scientific partners, including the Smithsonian Environmental Research Center (SERC), San Francisco Bay National Estuarine Research Reserve (NERR), and San Francisco State University's Estuary & Ocean Science Center (EOS), will develop multiple restoration alternatives. These alternatives will explore different arrangements of eelgrass plantings and oyster habitat structures across varying depths, wave exposures, and substrate types. Up to six initial concepts will be evaluated for biological performance, engineering feasibility, and community alignment, with as many as three advanced for more detailed analysis. This iterative process will lead to a preferred living shoreline design supported by engineering drawings, technical summaries, and cost estimates. These materials will provide sufficient detail to begin environmental review and early permitting.

The project will also prepare the environmental documents required under the California Environmental Quality Act (CEQA) and begin drafting environmental permit applications for the San Francisco Bay Conservation and Development Commission (BCDC), the San Francisco Bay Regional Water Quality Control Board, the U.S. Army Corps of Engineers, and the California Department of Fish and Wildlife. By completing this early planning and coordination work, and by engaging the community and meeting with regulatory agencies through the Bay Restoration

Regulatory Integration Team (BRRIT), the project will be well-positioned to move smoothly into future construction and restoration phases once funding is secured.

The project includes robust community engagement through workshops, pop-up events, and collaboration with local organizations to ensure that community priorities, such as educational opportunities, shoreline accessibility, and integration with ongoing shoreline adaptation planning, inform the restoration design. Tribal engagement will continue with the Association of Ramaytush Ohlone to incorporate Indigenous knowledge and cultural perspectives.

The project includes youth engagement and workforce development, which will be provided through partnerships with Literacy for Environmental Justice (LEJ), San Francisco State University, and San Mateo County Community Colleges. These organizations will use the project's data-collection efforts and stewardship activities, such as invasive plant removal, to provide hands-on environmental learning and training opportunities for students and young adults from Brisbane, nearby San Francisco neighborhoods, and regional community colleges. Participants will gain experience in shoreline ecology, habitat monitoring, restoration planning, and environmental stewardship, helping to build local capacity and pathways into careers in natural resource management and climate resilience.

The project will also evaluate opportunities to integrate shoreline access into future restoration in a manner compatible with sensitive eelgrass and oyster habitats. The Brisbane shoreline includes approximately 1.3 miles of the unfinished Bay Trail, and future phases may create new opportunities for scenic overlooks, wildlife viewing, interpretive materials, and educational programming.

The project's community engagement process will assess how restored shoreline habitats can enhance the public's experience of the Bay while avoiding impacts to sensitive subtidal areas. Engagement will also consider how potential future Water Trail access can be aligned with restoration while minimizing disturbance to wildlife.

**Grant Applicant Qualifications:** OneShoreline is well-qualified to lead the Brisbane Living Shoreline Project due to its statutory role, technical capacity, and direct experience managing multi-jurisdictional shoreline resilience initiatives in San Mateo County. As the countywide flood and sea level rise resiliency district, OneShoreline was specifically established to address regional water-related climate impacts and has successfully advanced complex, multi-partner shoreline projects, including the Bayfront–Atherton Channel Project and the Millbrae and Burlingame Shoreline Resilience Project. Through these efforts, OneShoreline has demonstrated strong performance in managing multi-year planning, design, permitting, and community engagement processes, including coordination with regulatory agencies, BRRIT, and multiple landowners.

For this project, OneShoreline is partnered with leading regional scientific institutions including the Smithsonian Environmental Research Center (SERC), the San Francisco Bay National Estuarine Research Reserve (NERR), and San Francisco State University's Estuary & Ocean Science Center (EOS). Each partner brings decades of technical expertise in oyster and eelgrass restoration, long-term ecological monitoring, and subtidal habitat science. These partners have

extensive experience conducting the types of biological, physical, and hydrodynamic surveys required for this project and have active research programs already underway along the Brisbane shoreline.

**Barriers and Risks:** Because this is a planning, data collection, and early design phase, the project does not face construction-related risks; however, several planning-phase risks have been identified. Regulatory complexity presents a potential challenge, as large-scale subtidal habitat restoration requires coordination with multiple permitting agencies. This risk will be mitigated by early engagement with the Bay Restoration Regulatory Integration Team (BRRIT), targeted consultations with agency staff, and iterative design development that incorporates permitting feedback.

Landowner coordination is another consideration because multiple shoreline parcels are owned by different public and private entities. OneShoreline has already initiated engagement with Baylands Development, the California State Lands Commission, the City and County of San Francisco, Audubon, and others. Continuing this engagement throughout the planning process will help secure site access, advance easement discussions, and identify feasible locations for future restoration elements.

Technical risks include the presence of invasive fouling species and potential conflicts with recreational boating in shallow subtidal zones. These are planning-phase considerations and will be addressed through community outreach, design alternatives that minimize recreational conflicts, and siting oyster elements in areas where biofouling and disturbance are expected to be manageable.

**Site Description:** The project area spans approximately 1.5 miles of the Brisbane shoreline along U.S. Highway 101. The shoreline is characterized by hardened edges, limited habitat complexity, and an absence of eelgrass (Exhibit 2). The area is exposed to wind-driven waves, storm surge, and increasing tidal flooding. Adjacent land uses include wetlands, roads, industrial parcels, and segments of the Bay Trail. The Brisbane shoreline includes a 1.3-mile segment of the Bay Trail corridor and future opportunities for Water Trail access. Ownership is divided among public and private entities, including Baylands Development, the California State Lands Commission, the City and County of San Francisco, and several private landowners.

Regional agencies have identified the Brisbane shoreline as a sea level rise “hotspot” where critical infrastructure, limited marsh migration space, and high exposure converge, making this reach a priority for nature-based shoreline resilience strategies.

**PROJECT FINANCING**

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| **San Francisco Bay Restoration Authority** | $962,500 |
| In-Kind Support (OneShoreline and partners) | **$77,000** |
| **Project Total** | **$1,039,500** |

OneShoreline and project partners will contribute in-kind support through staff time, laboratory resources, and ongoing monitoring efforts. The value of these services is estimated to be $77,000.

## CONSISTENCY WITH AUTHORITY'S ENABLING LEGISLATION, THE SAN FRANCISCO BAY RESTORATION AUTHORITY ACT:

The project is consistent with the San Francisco Bay Restoration Authority Act (Government Code, Sections 66700-66706).

The project is consistent with Section 66704.5(a) of the Government Code, which authorizes the Authority to award grants to public entities (including owners or operators of shoreline parcels in the San Francisco Bay area in a county within the Authority's jurisdiction), because the applicant is a public entity in San Mateo County.

The project is consistent with Section 66704.5 (b) of the Government Code, which defines eligible projects, because it will lead to the restoration, protection, or enhancement of natural habitats along the San Francisco Bay shoreline by designing eelgrass and oyster restoration projects, lay the groundwork for nature-based flood protection features that strengthen shoreline resilience, and evaluate and plan for improved public access compatible with habitat restoration.

The project is consistent with Section 66704.5 (e) of the Government Code, because planning, (including scientific studies, CEQA documentation, design, and early permitting) is an eligible project phase.

## CONSISTENCY WITH MEASURE AA PROGRAMS AND ACTIVITIES:

The proposed project is consistent with the Vital Fish, Bird and Wildlife habitat Program's purpose to significantly improve wildlife habitat that will support and increase vital populations of fish, birds, and other wildlife in and around the Bay by developing designs to re-establish oyster beds and eelgrass meadows in the subtidal habitats along the Brisbane shoreline. These habitats support fish, birds, marine invertebrates, and migratory species while improving water clarity, oxygenation, and sediment stability. The project provides a regional opportunity to enhance biological productivity and habitat complexity along the Brisbane shoreline where the potential for a successful restoration is high due to favorable environmental conditions recorded by regional scientists.

## CONSISTENCY WITH MEASURE AA PRIORITIZATION CRITERIA:

### 1. Greatest positive impact.

The Brisbane Living Shoreline Project will provide major benefits across the Bay by restoring eelgrass and native oyster habitats that naturally clean the water, support fish and birds, and help rebuild healthier near-shore ecosystems. Future phases based on this planning effort have the

potential to create up to 150 acres of restored oyster and eelgrass habitat at the project site. The Baylands Ecosystem Habitat Goals Science Update (2015) highlights the importance of creating more diverse, connected habitats and strengthening the links between creeks, marshes, and subtidal areas to support wildlife and improve overall Bay resilience. This project directly contributes to those goals by adding structure and complexity to the shoreline, improving movement pathways for wildlife, and improving linkages between subtidal and intertidal shoreline systems.

Alongside these ecological benefits, the project provides several important co-benefits for Bay Area communities. Restoring oyster and eelgrass beds helps reduce wave energy and erosion, offering a natural boost to shoreline flood protection. The project also supports cleaner water, long-term carbon sequestration, and opportunities for future public access, recreation, and education as the shoreline becomes healthier. Where feasible, the project can incorporate beneficial reuse of sediment or shell material, helping reduce waste while supporting restoration. Overall, the project uses the best available science and regional planning guidance to deliver broad, long-lasting benefits for both the Bay and the people who live around it.

**2. Greatest long-term impact.**

The project offers the greatest long-term impact by strengthening the resilience of urban shorelines through nature-based solutions. Eelgrass meadows and oyster habitats act as living coastal infrastructure, naturally attenuating wave energy, reducing erosion, and stabilizing sediments over time. By integrating detailed physical and ecological data into the design process, the project advances climate-resilient restoration methods that can adapt to changing conditions. The resulting approaches not only enhance habitat quality and shoreline protection at the project site but also establish a transferable model that can guide similar adaptation efforts across the region's developed shorelines.

**3. Leveraging resources and partnerships.**

The project leverages substantial in-kind support from regional scientific partners and complementary planning efforts, significantly increasing the value of the Authority's investment. OneShoreline has secured commitments from the Smithsonian Environmental Research Center (SERC), the San Francisco Bay National Estuarine Research Reserve (NERR), and San Francisco State University's Estuary & Ocean Science Center (EOS) to contribute staff expertise, laboratory capabilities, monitoring equipment, and ongoing data collection that directly support the project's technical needs. These contributions represent high-value scientific services that would otherwise require significant additional funding.

The project also aligns closely with OneShoreline's concurrently funded planning initiatives, which enables the integration of shoreline habitat restoration with broader flood-risk reduction and adaptation strategies for Brisbane's shoreline. While these efforts do not constitute monetary match for this specific project, they provide essential context, complementary data, and shared outreach opportunities that strengthen the technical and regional relevance of this proposed work.

**4. Economically disadvantaged communities.**

Portions of Brisbane west of the Lagoon are designated economically disadvantaged communities. These neighborhoods face heightened vulnerability to sea level rise, shoreline flooding, and water-quality degradation due to their proximity to low-lying shoreline areas and critical transportation corridors. By advancing nature-based solutions that improve water quality, enhance shoreline stability, and reduce long-term flood risks, the project will provide meaningful environmental and public-health benefits to these communities.

The project's partnerships with local educational and community-based organizations (Literacy for Environmental Justice (LEJ), the San Francisco Bay National Estuarine Research Reserve (NERR), and San Francisco State University's Estuary & Ocean Science Center (EOS)) will expand access to high-quality environmental education and workforce development opportunities for youth and young adults from economically disadvantaged communities in Brisbane and nearby San Francisco neighborhoods. These opportunities include hands-on training in shoreline ecology, habitat monitoring, environmental data collection, and stewardship roles that can serve as pathways to careers in science and climate resilience.

**5. Engage youth and young adults.**

The project will engage youth and young adults through a network of partnerships that provide hands-on experience in environmental monitoring, restoration science, and shoreline stewardship. OneShoreline will collaborate with LEJ, the NERR, and EOS to offer field-based learning opportunities tailored to students from Brisbane, nearby San Francisco communities, and regional community colleges. These partners have long-standing youth programs that introduce participants to Bay ecology, data collection techniques, and habitat restoration methods.

Through these partnerships, young people will participate in activities such as monitoring water quality and oyster recruitment, assisting with wildlife and habitat surveys, learning to deploy scientific instruments, supporting community engagement events, and contributing to shoreline stewardship efforts. These experiences provide exposure to career pathways in coastal science, natural resource management, and climate resiliency planning.

**6. Monitoring, maintenance, and stewardship.**

The project incorporates a strong scientific monitoring framework that will guide the development of a resilient and effective living shoreline design. Multi-year ecological and physical monitoring, including assessments of oyster recruitment, seasonal bird use, subtidal community composition, water quality, currents, wave energy, and sediment dynamics, will provide the data necessary to evaluate habitat suitability and refine proposed restoration strategies. These monitoring activities are designed to inform adaptive management by identifying how environmental conditions vary over time and how restored habitats may function under changing climate and sea-level conditions.

**7. Coastal Conservancy's San Francisco Bay Area Conservancy Program.**

The proposed project aligns with the Selection Criteria of the San Francisco Bay Area Conservancy Program (Public Resources Code, Section 31163(c)). The project directly advances regional goals identified in the San Francisco Bay Subtidal Habitat Goals Report, the Baylands Ecosystem Habitat Goals Science Update (2015), and the San Francisco Estuary Blueprint, all of which call for expansion of native eelgrass and oyster habitat, improved ecological connectivity, and integration of nature-based shoreline resilience approaches. The Brisbane shoreline has also been identified by BCDC as a sea level rise "hotspot," where nature-based adaptation projects are regionally prioritized.

The project builds on existing monitoring and scientific work already underway by SERC and the NERR, and leverages OneShoreline's concurrent shoreline adaptation planning effort. Baseline data collection, design development, and CEQA preparation can begin immediately, enabling rapid advancement toward implementation once planning is complete.

The Brisbane shoreline faces accelerating sea level rise, erosion, and flood risk. Without early restoration and planning, opportunities for establishing eelgrass and oyster habitat, and the sediment stabilization and wave attenuation benefits they provide, will diminish as shoreline hardening and inundation pressures increase. The project also secures key scientific data that are time-sensitive and needed to inform future design windows.

**8. San Francisco Bay Conservation and Development Commission's Coastal Management Program.**

The proposed project is consistent with the San Francisco Bay Conservation and Development Commission's (BCDC's) Coastal Management Program, including several key policies in the San Francisco Bay Plan that guide restoration of subtidal habitats, protection of fish and wildlife, and advancement of nature-based shoreline resilience.

Fish, Other Aquatic Organisms and Wildlife Policy 1: To assure the benefits of fish, other aquatic organisms and wildlife for future generations, to the greatest extent feasible, the Bay's tidal marshes, tidal flats, and subtidal habitat should be conserved, restored and increased.

Fish, Other Aquatic Organisms, and Wildlife Policy 2: Native species, including candidate, threatened, and endangered species; species that the California Department of Fish and Wildlife, the National Marine Fisheries Service, and/or the U.S. Fish and Wildlife Service have listed under the California or Federal Endangered Species Act; and any species that provides substantial public benefits, as well as specific habitats that are needed to conserve, increase, or prevent the extinction of these species, should be protected, whether in the Bay or behind dikes. Protection of fish, other aquatic organisms, and wildlife and their habitats may entail placement of fill to enhance the Bay's ecological function in the near-term and to ensure that they persist into the future with sea level rise.

Subtidal Areas Policy 10: The Commission should continue to support and encourage expansion of scientific information on the Bay's subtidal areas, including: (a) inventory and description of the Bay's subtidal areas; (b) the relationship between the Bay's physical regime and biological populations; (c) sediment dynamics, including sand transport, and wind and wave effects on sediment movement; (d) oyster shell transport; (e) areas of the Bay used for spawning, birthing, nesting, resting, feeding, migration, among others, by fish, other aquatic organisms and wildlife; (f) where and how habitat restoration, enhancement, and creation should occur considering species/ habitat needs and suitable project sites; and (g) if, where, and what type of habitat type conversion may be acceptable.

**9. San Francisco Bay Joint Venture's Implementation Strategy.**

The Brisbane Living Shoreline Project is consistent with the San Francisco Bay Joint Venture's Implementation Strategy, which emphasizes restoring native eelgrass and oyster habitats, improving ecological connectivity, and expanding science-based shoreline resilience efforts.

The project supports several of the Joint Venture's recommended actions, including increasing native eelgrass populations in suitable habitat areas, restoring large areas of suitable habitat for native oysters and increasing understanding of oyster recruitment and survival, enhancing ecosystem function by integrating multiple habitat types like eelgrass, oyster reefs, and adjacent subtidal and intertidal zones.

The project team has initiated communication with SFBJV staff and begun the process of submitting the project to the Joint Venture for consideration and potential inclusion in the Priority Project List. The project has also been submitted to EcoAtlas and is pending review.

## CONSISTENCY WITH AUTHORITY'S TRIBAL CONSULTATION POLICY:

In accordance with the Authority's Interim Tribal Consultation Policy, letters were sent to tribes identified by the Native American Heritage Commission. OneShoreline is in ongoing communication with the Association of Ramaytush Ohlone, which has expressed interest in participating in shoreline projects in San Mateo County. The project includes a stipend for tribal consultation and opportunities to integrate Indigenous ecological knowledge and cultural interpretation.

## COMPLIANCE WITH CEQA:

The project is categorically exempt from CEQA under 14 Cal Code of Regs Section 15306, which exempts information collection, resource evaluation, and basic data gathering activities that do not result in a major disturbance to environmental resources.

The activities funded by this authorization, including surveys, monitoring, scientific studies, designs, CEQA preparation, regulatory coordination, and community engagement, fall within this exemption. Authority staff have independently evaluated the exemption and concur that it applies.

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