

**SAN FRANCISCO BAY RESTORATION AUTHORITY MEASURE AA  
GRANT APPLICATION – COVER PAGE**



**Port of San Francisco – Heron’s Head Park Shoreline Resilience Project**

**CONTACT INFORMATION**

<b>Organization</b>	Port of San Francisco		
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<b>Address</b>	Port of San Francisco, Pier 1-The Embarcadero, San Francisco, CA 94111		
<b>Partner Entities</b>	Literacy for Environmental Justice (LEJ), San Francisco State University - Estuary & Ocean Science Center (EOS Center)		

**PROJECT INFORMATION**

<b>Project Name</b>	Heron’s Head Park Shoreline Resilience		
<b>Summary</b>	The Port proposes to plan, permit, and construct a living shoreline at Heron’s Head Park to control erosion, protect wetland habitat and upland public access, improve ecological function and biodiversity, and enable adaptation to sea level rise. The project will include planting, monitoring and stewardship.		
<b>Total Project Cost</b> (rounded to nearest \$100)	<b>\$4,254,200</b>	<b>Amount Requested</b>	<b>\$3,456,600</b>
<b>Other Funding Sources</b> (Amount, rounded to nearest \$100)	<b>\$797,600</b>	<b>Other Funding Sources</b>	Port of San Francisco Capital Budget & Partner donation
<b>Start Date</b>	<b>September 2019</b>	<b>End Date</b>	<b>December 2023</b>
<b>Project Type</b>	<input checked="" type="checkbox"/> Habitat <input checked="" type="checkbox"/> Flood/Habitat <input checked="" type="checkbox"/> Public Access/Habitat		
<b>Project Phase</b> (check all that apply)	<input type="checkbox"/> Acquisition <input checked="" type="checkbox"/> Planning <input type="checkbox"/> Operations <input type="checkbox"/> Other: _____ <input checked="" type="checkbox"/> Permitting <input checked="" type="checkbox"/> Maintenance <input type="checkbox"/> Design <input checked="" type="checkbox"/> Monitoring <input checked="" type="checkbox"/> Construction/Implementation		
<b>CEQA</b>	What are the CEQA requirements for your project? <input type="checkbox"/> Not a project under CEQA <input checked="" type="checkbox"/> Exempt from CEQA (statutorily or categorically) <input type="checkbox"/> ND <input type="checkbox"/> MND <input type="checkbox"/> EIR If required, has the CEQA document been approved and filed?		

	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, date filed; If no, expected filing month/year: <b>Cat Ex Application submitted 11/9/18</b>				
<b>Acres</b> (habitat acreage to be restored, or land to be acquired)	<b>2.65</b>	<b>Trail length</b> (miles)	<b>NA</b>	<b>APNs</b> (Acquisition Only)	<b>NA</b>
<b>Shoreline length (miles)</b>				<b>1,600 ft.</b>	

### LOCATION INFORMATION

<b>SFBRA REGION</b>	<input type="checkbox"/> North (Sonoma, Marin, Napa, Solano)		<input type="checkbox"/> East (Alameda, Contra Costa)		
	<input checked="" type="checkbox"/> West (San Francisco, San Mateo)		<input type="checkbox"/> South (Santa Clara)		
<b>County</b>	San Francisco	<b>Specific Location</b>	Heron's Head Park, Foot of Cargo Way at Jennings St.		
<b>Latitude</b> Format: 33.3333	37.7373	<b>Longitude</b> Format:-111.1111	122.3725		
<b>What point is represented by the lat/longs (eg., parking lot, center of site, etc):</b>	Center of the Site				

### ELECTED OFFICIALS

Districts	Number(s)	Name(s)
State Senate	11	Scott Wiener
State Assembly	17	David Chiu
Congressional	12	Representative Nancy Pelosi Senator Diane Feinstein Senator Kamala Harris

## **I. GRANT APPLICATION – PROJECT DESCRIPTION**

### **I.1. Project Eligibility.**

The Port of San Francisco (Port), an enterprise agency of the City and County of San Francisco, owns 7.5 miles of the San Francisco Bay shoreline from Aquatic Park to India Basin. The Port is charged with managing the waterfront consistent with the public trust, including providing public access, recreation, protection of natural resources, and economic opportunity for the city, the region, and the state.

### **I.2. Need for the Project.**

The Port's Heron's Head Park provides recreation, education and volunteer opportunities, and habitat for native plants and wildlife, including two endangered species: Ridgeway's rail and California seablite. Although small, Heron's Head Park provides valuable habitat in an otherwise urban environment. Due to its size and location, it is uniquely well-suited to offer public access to natural shoreline habitat that many Bay Area residents might not otherwise reach. A significant part of Heron's Head Park's value to habitat conservation is the opportunity for public education and engagement with the type of shoreline that once encircled San Francisco Bay that it provides.

In the 20 years since the wetlands and park were created, the shoreline at Heron's Head Park has experienced subsidence of the fill soils, erosion from wind-waves and tidal flows, and a low supply of suspended sediment. These forces have caused a loss of both habitat acreage and ecological function. In the most impacted area, the shoreline has retreated up to 50 feet from its 1998 location, and one of the tidal ponds is consistently flooded rather than tidally flushed. Current rates of erosion in combination with sea level rise are encroaching on tidal wetlands, and may eventually threaten the segment of Bay Trail located in the upland portion of the park. Without protection from erosion and capacity to adapt to sea level rise the wetlands are expected to lose an estimated additional 80,000 sq. ft. over the next 30 years. The Port proposes to construct a living shoreline that will enhance and preserve the physical, biological, and community benefit functions at Heron's Head Park.

### **I.3. Goals and Objectives.**

The proposed Heron's Head Park Shoreline Resilience Project ("Project") is designed to achieve the following objectives:

1. Stabilize the southern shoreline and protect it from continued erosion and subsidence.
2. Enhance biodiversity and ecological function.
3. Create a resilient shoreline that can adapt to a moderate amount of sea level rise through 2050.

The Project will restore the originally designed areal extent and type of habitat. It will provide new habitat in the form of sand/gravel beach, new and revegetated areas within the wetlands to reinforce shoreline and pond edges, and constructed oyster reefs. The sand/gravel shoreline will be dynamic, enabling wetlands to migrate with rising sea level so that some wetland habitat and key public access features remain through mid-century. With the proposed monitoring and stewardship, including ongoing removal of non-native species and replanting with locally-adapted native wetland/transition zone plants, the Project will combat a significant infestation by invasive Algerian sea lavender, and provide employment opportunities for local residents as well as opportunities for volunteers and visitors from throughout the San Francisco Bay Area to connect with this unique wetland.

#### **I.4. Applicant and Project History.**

The 21 acres of land that comprise Heron's Head Park originated as bay fill placed in the 1970s. The originally authorized construction was never completed. In 1998, the Port constructed Heron's Head Park to create wetland habitat and public access amenities. The Port has extensive experience delivering capital improvement projects, including many shoreline stabilization projects. The Port has demonstrated its commitment to enhancing bay and shoreline habitat, and supports wetland restoration through ongoing stewardship at Heron's Head Park and Pier 94 Wetlands. The Port currently partners with non-profit organizations and other city agencies to provide environmental education programs at Heron's Head Park. It also offers workforce development opportunities in maintaining Port land and facilities. With expertise in coastal engineering and construction, and its history of engaging the public in its shoreline parks and open spaces, the Port is very well-poised to successfully complete the proposed Project.

The Port proposes to partner with the following organizations to deliver the Project:

**Port of San Francisco Youth Employment Program (YEP).** Every four years the Port solicits proposals from and contracts with one or more local organizations that provide youth employment program services to economically disadvantaged and at-risk San Francisco youth ages 16 through 24. Under contract to the Port, these organizations offer employment, job readiness training, and maintenance skills to San Francisco youth. The San Francisco Conservation Corps (SFCC) and Hunters Point Family, a community-based organization that serves at-risk youth and young adults living in Bayview Hunters Point, were awarded contracts in April of 2015. The Port's current contract expires in May 2019.

The Port's selection of YEP partners is subject to City of San Francisco contracting procedures, including awarding contracts through a competitive, transparent process. The Port will be initiating its next YEP contracting process in Spring 2019 and will include the planting and habitat stewardship work proposed for the Project in the scope of work to be performed by YEP workers. For the proposed Project, the Port will hire YEP crews, typically five youth with one supervisor per crew, to plant and maintain plantings.

**Literacy for Environmental Justice (LEJ).** LEJ is an environmental education and youth empowerment organization created specifically to address the ecological and health concerns of Bayview Hunters Point and the surrounding communities of southeast San Francisco. Its mission is to connect people to urban open spaces to restore ecology, improve environmental health, and strengthen communities. LEJ operates a native plant nursery located in Hunters Point that specializes in growing locally-adapted native species for shoreline and coastal upland habitats. For the proposed Project, the Port proposes to purchase the wetland and transition zone plants, many of which will be grown from locally-collected seeds and including California sea-blite (*Suaeda californica*), from LEJ. The Port will also hire staff from LEJ's "Eco-Apprentice Program", which serves transitional-age youth (18-26) from Bayview Hunters Point, to train and work alongside the YEP members to plant and maintenance plantings.

**San Francisco State University Estuary & Ocean Science Center (EOS Center).** The EOS Center is located at the Romberg Tiburon campus of San Francisco State University. Faculty from the EOS Center and affiliated scientists have served on a technical advisory committee guiding the planning and design of the Project to date. With funding to implement the Project, the technical advisory team will be retained to continue providing expert guidance during construction, monitoring, and future adaptive management measures.

### I.5. Project Description.

The Project consists of planning, design, permitting, and construction of a living shoreline at Heron’s Head Park. It includes post-construction monitoring of physical outcomes and key habitat indicators for at least five years after construction. The Port’s proposal includes funding to support five years of active habitat stewardship: planting during initial construction followed by ongoing seasonal planting and removal of invasive species. After planting the newly constructed shoreline and reinforcing existing pond sills with vegetation, ongoing stewardship will focus on removing and replacing invasive Algerian sea lavender (*Limonium ramossissium*) in severely impacted areas along the high marsh/transition zone.

### I.6. Site Description.

Heron’s Head Park, is an approximately 21-acre peninsula, comprised of seven acres of jurisdictional wetlands and tidal ponds, and 14 acres of public open space. The site is owned and managed by the Port of San Francisco, and located at the southern end of the Port’s jurisdiction in the Bayview Hunters Point neighborhood. The Port’s 1998 wetland creation/enhancement project at the site was designed to provide a variety of habitat types, including high intertidal transition zone, tidal salt marsh, refugial islands, and tidal ponds. Park improvements in the adjacent uplands include a 1/3-mile trail (a spur off the San Francisco Bay Trail), native plant landscaping, picnic areas, a fishing pier, bird blinds, and an environmental education center, The EcoCenter at Heron’s Head Park.

### I.7. Specific Tasks.

#	Task Name	Description
1a	Planning	This task includes conceptual planning, site-specific studies (jurisdictional wetland delineation, biological assessment, topographic and bathymetric surveys) and alternatives analysis to determine preferred approach to shoreline stabilization. The Port initiated planning in October 2017 and completed the Alternatives Analysis, with recommendation of the proposed living shoreline approach, in September 2018.
1b	Engineering Design	The proposed project requires engineering from conceptual plan through construction documents. This task is underway, funded by Port Capital, and is currently at 30% engineering design. Construction documents are expected to be complete by May 2019.
1c	Permitting	Concurrent with engineering design, the Port will complete CEQA review and obtain permits to construct from the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and Bay Conservation and Development Commission.
2	Shoreline Construction	Shoreline construction will include placement of the sand/gravel beach material, rock headlands and oyster reef elements. Depending on access route to the shoreline, construction may also include reinforcement of the existing trail to support construction equipment. The Project will include post-construction restoration of the trail and any habitat areas, public access facilities, or other site features impacted by construction.
3	Construction Management	A Port or City of San Francisco Construction Manager will oversee construction to ensure compliance with all engineering plans and specifications, permit requirements, administrative contract requirements and schedule. The Port’s standard contracting practices require funding for construction management at

		15% of the construction cost. The Port will also retain the existing design engineering team and technical advisory committee for pre-construction surveys, environmental monitoring, and other technical consultation during construction.
4	Revegetation	The Port will contract with LEJ (see Section 1.4 re. partners) to cultivate and install wetland and high marsh/transition zone plants on the shoreline and wetland areas most impacted by invasive species. To allow for cultivation of plants, installation at optimal season, and on-going monitoring and maintenance of plantings, revegetation will occur in phases over several years.
5	Monitoring	The Port anticipates that permits to construct the shoreline improvements will require monitoring key habitat indicators for at least 5 years after construction. Monitoring may include topographic surveys, quantitative habitat assessments (such as mapping vegetation extents, bird occupancy/usage surveys and oyster surveys), qualitative habitat assessments, and photo documentation.
6	Stewardship	The Port will contract with LEJ and another youth/workforce development organization (see Section 1.4 re. partners) to maintain plantings, including removing invasives and installing supplemental and replacement plants as needed, for a period of four years after initial installation
7	Contingency	A contingency is required to manage uncertainty about the impact of difficult access to the shoreline, special equipment that may be required, seasonal and tidal restrictions for environmental protection, other unanticipated conditions, and the bidding climate for construction work in San Francisco on project cost.

### **I.8. Work Products.**

The primary work product will be the newly reinforced shoreline, which will immediately mitigate erosion and habitat loss. Other work products include post-construction as-built drawings, monitoring reports, and a final “lessons learned” report on Project design, construction, monitoring, and 5-year outcomes.

### **I.9. Measuring Success.**

The Port will monitor the performance of the constructed beach and headlands, the dynamics of beach nourishment, the recovery of vegetation and other habitat features (e.g. tidal ponds) in areas formerly impacted by erosion, the ecological function of the oyster reef elements, and other parameters as specified by resource and regulatory agency permits, which typically require at least five years of monitoring. The success criteria and specific monitoring protocols will be specified by and/or developed in consultation with the agencies and the Project’s technical advisors. To evaluate performance of the Project with respect to its primary objects, the Port anticipates that success criteria will include, but will not be limited to, reduced erosion and loss of wetland area landward of the new shoreline, increased presence of the endangered California seablite, and colonization of the oyster reef elements by native oysters as part of a diverse assemblage of invertebrate species.

### **I.10. Barriers and Risks.**

The Project faces construction challenges related to the sensitive environment and difficult access to the shoreline, both of which pose a potential to impact project cost and duration. Seasonal restrictions to protect aquatic species and nesting birds will limit the construction period to fall and winter, when wet

weather may prolong the construction period. Working with the design team that has extensive experience in wetland restoration and living shoreline creation, the Port is developing construction plans and specifications that will manage that risk by incorporating appropriate environmental protections while also allowing land and/or water access. This will enable contractors bidding on the construction to bring their experience and expertise to develop the most efficient construction approach.

Sea level rise poses a potential risk to the long term success of the Project. However, the proposed shoreline elevations and vegetation are designed to balance reinforcement of the shoreline to accommodate sea level rise and provide long term protection for habitat against the risk of over-building for current conditions and potentially impacting existing habitat.

Oyster drills, predatory marine snails that feed primarily on oysters and other bivalves, pose a risk to the success of the proposed oyster reef elements as habitat for native oysters. This risk will be addressed by conducting pre-construction assessment of oyster recruitment and presence of oyster drills, and developing materials specifications to minimize the risk of introducing oyster drills to the area.

**I.11. Environmental Review.** The proposed Project (select the appropriate answer(s)):

- Is exempt under CEQA. Environmental Evaluation Application for **Categorical Exemption Class 33 – Small Habitat Restoration** was submitted 11/9/18 and is currently under review by City Planning .
- Requires a Neg Dec, MND, or EIR. Specify which: \_\_\_\_\_
- Also please specify the CEQA lead agency (the agency preparing the document) and the (expected) date for adoption or certification: **Lead agency: City & County of San Francisco Planning Department** (City Planning).

Please note that the Authority will need to review and consider the adopted or certified CEQA document prior to authorizing a grant.

**I.12. Public Access.**

The project site includes an approximately 1/3-mile spur of the San Francisco Bay Trail. The Project is designed to mitigate the impact of sea level rise on public access areas of the park, including protection of the Bay Trail, through approximately 2050 (based on moderate sea level rise estimates).

**I.13. Community Support, Involvement and Benefits.**

Since Heron’s Head Park opened to the public after the wetlands restoration and park construction in 1998, it has become a well-loved resource for visitors from the surrounding community and throughout the Bay Area. Port partners, including the San Francisco Recreation & Parks Department (SF-RPD), LEJ, and the non-profit bay.org, have provided environmental education and volunteer programs in the park since inception (see [Section III.6 – Engage Youth and Young Adults](#)). Other organizations, such as Golden Gate Audubon and the Bayview YMCA, and schools, including the Wilderness Arts and Literacy Collaborative (an alternative high school), and City College of San Francisco, to name a few, lead their own education programs and excursions in Heron’s Head Park. Countless other groups and individuals enjoy walking and wildlife viewing at Heron’s Head Park.

In developing plans for the proposed Project, the Port has sought input from its Southern Waterfront Citizens’ Advisory Committee, Golden Gate Audubon’s Conservation Committee, and the EcoCenter

Advisory Committee. The Port has found enthusiastic support for the Project, some of which is evidenced in the letters of support accompanying this grant application.

The public benefits of the proposed Project are substantive and tangible to the surrounding community. The Port's community partners in this grant application are described in Section I.4 – Applicant and Project History. Through the Port's YEP contract and its partnership with LEJ, the Port will hire local residents to participate in construction, native plant cultivation and installation, and ongoing habitat stewardship. The Project will protect the wetland habitat and Bay Trail that draw many to Heron's Head Park, and enable the Port and its partners to continue environmental education and volunteer programs that encourage participants of all ages to get their hands dirty to restore coastal habitat.

#### **I.14. Permitting and Mitigation.**

The following permits will be required:

- US Army Corps of Engineers 404 Permit.
- Regional Water Quality Control Board 401 Certification.
- Bay Conservation and Development Commission (BCDC) permit (type to be determined).
- CEQA Review - currently underway.

The Port and its consultant team have extensive experience with resource and regulatory agency permitting, which will help manage permitting challenges. The Project team has presented the Project at an interagency meeting attended by Army Corps, Water Board, and BCDC staff in July 2018. Attendees expressed support for the Project based on the conceptual plan level of information that was available at the time. It was acknowledged in the discussion that although the Project does involve placement of fill, it would convert existing low-value rubble-covered shoreline to more ecologically valuable gravel beach, restore intertidal elevations to those approved by permits for the initial wetland creation, and ultimately result in the preservation of existing tidal wetlands that would otherwise be lost to erosion. The Port will continue to engage resource and regulatory agency staff to facilitate permitting and ensure that the Project incorporates agency input.

#### **I.15. Acquisitions.**

The project site is owned and managed by the Port; no acquisition is required.



## II. GRANT APPLICATION – PRELIMINARY BUDGET AND SCHEDULE

**In Kind Services:** A Port tenant, Lehigh Hanson/ Hanson Aggregates is donating 12,000 cubic yards of mixed sand, gravel and shell material from its sand washing and sorting operation at Pier 92 to the Project, including transporting to and stockpiling material on adjacent Port property. The estimated commercial value of this material is \$80,000. It is expected to take approximately six months to accumulate the required quantity. All project management, including engineering review, budget and contract administration, financial reporting, and coordinating work by Project partners, will be performed by Port staff without cost to the Project. The exception is construction management, which will be performed by San Francisco Port or Department of Public Works staff, or qualified consultant.

**Contingency Costs:** A design contingency of 35% to account for variance from the current 30% engineering design to 100% design is included in the construction cost presented for Task 2 in the preliminary budget. Additionally, a 30% construction contingency is presented in Task 7 to allow for potential impact of difficult access, special equipment that may be required, seasonal and tidal restrictions on construction for environmental protection, other unanticipated conditions, Project Labor Agreements, and the bidding climate for construction work in San Francisco. See Section I.10 – Barriers and Risks.

**Other Funds:** The Port has allocated funds from its capital budget to the Project, including \$320,000 that is encumbered to a contract for planning, engineering design, and permitting. The proposed budget identifies \$717,565 of Port capital funds allocated to tasks to match SFBRA grant funds.

**Operation and Maintenance:** The shoreline stabilization components (sand/gravel beach, additional beach nourishment material, rock headlands) are designed to withstand hydrodynamic conditions and also adapt, pushed by waves and tides to higher elevation with sea level rise. Significant need for physical maintenance of the shoreline is not anticipated. The Port’s grant application includes funding for maintenance of vegetated areas (pond sills and inland side of beach berm) and high marsh areas impacted by invasive species. With intensive management during the first four to five years after construction, ongoing management by Port staff, YEP workers, and volunteers can be more feasibly accomplished within the Port’s existing budget for maintenance of its parks and open spaces.

**Uncertainties:** The key uncertainties that may significantly affect the cost or success of the Project, and the Project’s approach to managing uncertainty are discussed in Contingency Costs (above) and Section I.10 – Barriers and Risks. Permitting requirements and timing pose a potential uncertainty as discussed in Section I.14 – Permitting. Ability to procure the oyster reef elements is uncertain. The Port is in contact with staff at the Coastal Conservancy and Presidio Trust, as well as restaurants and volunteers interested in or currently working on small-scale oyster shell recycling to learn from their experience with obtaining materials and fabricating the oyster reef elements. While this uncertainty poses a challenge, it also offers significant opportunity for community participation. Finally, the feasibility of controlling the population of invasive Algerian sea lavender at the Project site is somewhat uncertain. This infestation has been identified as a threat to the extent and diversity of native wetland and transition zone plants at Heron’s Head Park, and a potential source of invasion of neighboring shorelines. The Port is working closely with the California Invasive Plant Council to coordinate efforts at Heron’s Head Park with their regional effort to manage Algerian Sea Lavender. Funding to support the habitat stewardship portion of the Project, removing invasives by hand and replanting the disturbed area with appropriate natives, will significantly improve the likelihood of success.

### **III. GRANT APPLICATION - PRIORITIZATION CRITERIA**

#### **III.1. Greatest positive impact.**

This Project will have immediate positive impact by creating a stable shoreline that will prevent ongoing loss of wetland area and protect a small but important habitat from erosion and flooding. The Project will protect habitat utilized by over 100 resident and migratory bird species, and beach habitat that supports the endangered California seablite. It will create new beach and reef habitat to be colonized by invertebrates, and enhance the existing mosaic of tidal wetland, tidal pond, and transition zone habitat.

The greatest positive impact may stem from the Project's location in a highly-urbanized area, where direct access to the bay is limited and armored shorelines predominate. Heron's Head Park offers visitors and residents in an increasingly densely-built community an opportunity to forge a personal connection with the wetland and shoreline habitats there. The shoreline and habitat improvements proposed for funding by the SFBRA will protect this unique asset and involve community members in hands-on restoration and stewardship to foster that personal connection.

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

The Project will protect habitat and public access from flooding due to sea level rise for decades. The lessons learned about living shoreline design, construction, and performance over time will inform the developing science and practice of living shoreline implementation. The employees, visitors, and volunteers who participate in this project will be the conservation voters and advocates of the future.

#### **III.3. Leveraging resources and partnerships.**

The Port and its partners are contributing approximately 19% of the project cost in cash and construction materials. This does not consider the funds invested to date or staff time that has been and will continue to be dedicated to the Project. Port funds and partner contributions are secured, not relying on anticipated revenue or otherwise uncertain. However, without SFBRA funding, the Port will not be able to implement the most critical component of the project, shoreline stabilization, in a timely manner, which would subject the site to additional habitat loss.

#### **III.4. Economically disadvantaged communities.**

Heron's Head Park is located adjacent to the Bayview Hunters Point neighborhoods in the southeastern corner of the city. These majority-minority neighborhoods have been historically disenfranchised and have experienced under-investment. Block group level data indicates that the neighborhood surrounding Heron's Head Park is an Economically Disadvantaged Community, with average income less than 80% of Area Median Income. The area is identified by the Urban Displacement project as "At Risk of Gentrification and/or Displacement."

CalEnviroScreen mapping (which ranks census tracts in California based on potential exposures to pollutants, adverse environmental conditions, socioeconomic factors and prevalence of certain health conditions) identifies the census tracts adjacent to the park at 90-95% for tract 6075023103 and 85-90% for tract 6075023200. These very high percentiles indicate that this community is at the highest level of vulnerability due to environmental and socioeconomic factors and thus bears a disproportionate environmental and health burden.

### **III.5. Benefits to economy.**

As part of its capital planning process, the Port estimates economic benefit that results from its implementation of capital improvement projects in accordance with accepted public finance practice. This calculation method estimates that the over \$1.9 million spent on the shoreline and oyster reef construction components of the Project (Task 2) would create approximately 16 jobs. Such direct result would be difficult to document because the calculation considers collateral economic activity as well as jobs working directly on the Project. Additionally, the Project is of short duration and some of the cost is related to difficult logistics and need for specialized marine construction equipment and methods rather than labor. However the Project is likely to generate significant short-term demand for trucking, which is a great opportunity for small and local business participation and includes contractors who do not have expensive construction equipment. The local workforce development opportunities are discussed in Section 1.4 – Applicant and Project History; overall community benefit is discussed in Section I.13. Community Support, Involvement and Benefits.

### **III.6. Engage youth and young adults.**

Port partners in this grant application, LEJ and the non-profit organizations that work with the Port through its Youth Employment Program contracts, are dedicated to the development of and comprised primarily of youth and young adults from the Bayview Hunters Point community. Those partner organizations are described in Section I.4 – Applicant and Project History. Through these partnerships, local youth and young adults will work directly on Project implementation.

Additionally, the Port partners with SF-RPD to provide free K-12 environmental education programs at Heron’s Head Park and employ the “Greenagers”, using Heron’s Head Park as their home base. The K-12 programs bring hundreds of school-age children to Heron’s Head Park each year. The Greenagers program is a youth leadership development program for teenagers who live or go to school in southeast San Francisco and are interested in environmental and community service. The program’s mission is to engage youth in improving the City’s green spaces through stewardship, creating place-based projects, and connecting youth to the great outdoors. The Greenagers and their followers collectively provide thousands of hours of volunteer stewardship at Heron’s Head Park each year. All of these paths to youth engagement will benefit from preservation of the natural area that make Heron’s Head Park the unique resource that it is.

### **III.7. Monitoring, maintenance, and stewardship.**

The Project would include pre-construction surveys to gauge suitability for oyster recruitment, presence of oyster drills, and distribution of existing vegetation. This assessment will inform the implementation of the oyster reef, wetland and transition zone planting, and subsequent habitat stewardship (primarily removal of invasive species, planting natives in areas disturbed by removal, and replacement of plantings that do not thrive). Monitoring beach dynamics, survival and growth of installed vegetation, wildlife usage, and ecological function of the oyster reefs over a period of years will contribute to the growing body of knowledge about natural and ecologically valuable solutions to improve shoreline resilience. If monitoring beyond the 5-year duration presented in this proposal is warranted to maximize the value of the monitoring effort, the Port will fund and manage additional monitoring.

### **III.8. Coastal Conservancy's San Francisco Bay Area Conservancy Program.**

The project is consistent with the San Francisco Bay Area Conservancy Program criteria because it:

- (1) is supported by adopted regional plans (*Baylands Ecosystem Habitat Goals Report (1999)* pp. 98, 118-119, *Baylands Goals Update (2016)* pp. 173-177, *USFWS Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California (2013)*; *Comprehensive Conservation and Management Plan (2016)*, and the *San Francisco Basin (Region 2) Water Quality Control Plan (May 2017)* pp. 2-2 and 4-90; *San Francisco Bay Plan*, and the Joint Venture's Implementation Strategy (see below));
- (2) serves a regional constituency (will benefit regional populations of fish, wildlife, and shellfish),
- (3) can be implemented in a timely way (with construction beginning in 2019),
- (4) provides opportunities for benefits that could be lost if the project is not quickly implemented (benefits, particularly regarding protection against wetland erosion, invasive plants, and sea level rise, could be lost); and
- (5) includes matching funds from other sources of funding (from the Port and private in-kind contributions from Hanson Aggregate).

### **III.9. San Francisco Bay Conservation and Development Commission's Coastal Management Program.**

The project is consistent with the San Francisco Bay Conservation and Development Commission's (BCDC's) Coastal Management Program priorities for wildlife habitat, water-related recreation, and climate change resilience. Port staff met with BCDC staff on July 12, 2018 to discuss the proposed project activities and benefits of the proposed bay fill (for beach creation and wetland erosion protection). The project will apply for a BCDC permit, and an approved permit would be in place prior to Project construction.

### **III.10. San Francisco Bay Joint Venture's Implementation Strategy.**

The Heron's Head Park Shoreline Resilience Project is designated as a Tier 1 priority project in the Joint Venture's priority projects list (August 2018), indicating that it advances the Joint Venture's goals for protecting and enhancing wetland habitat for key species, has a strong biological foundation, and is being implemented by an entity or partnership that has the resources and expertise to ensure the project will be completed in a timely way with the best long-term habitat value.

## GRANT APPLICATION CHECKLIST

A complete application will consist of the following files:

- Cover Letter (optional) – no more than one page.
- Grant application form (in Microsoft word or rtf format), includes:
  - cover page (2 pages)
  - project description (6 pages)
  - preliminary budget and schedule (1 page)
  - prioritization criteria (3 pages)
- Project maps and design plans (in one pdf file, 10 MB maximum size)
- Project photos (in jpg format)

**Project Maps and Graphics.** Provide the following project graphics with your application. Project maps and design plans should be combined into one pdf file with a maximum size of 10 MB. Project photos should be provided in jpg format.

- Regional Map – Clearly identify the project’s location in relation to prominent area features and significant natural and recreational resources, including regional trails and protected lands.
- Site-scale map – Show the location of project elements in relation to natural and man-made features on-site or nearby. Any key features discussed in project description should be shown.
- Design Plan – Construction projects should include one or more design drawings or graphics indicating the intended site improvements.
- Site Photos – One or more clear photos of the project site

**I have reviewed the Grant Agreement Provisions listed in the Grant Guidelines (Page 9) and understand the likely requirements for receiving and administering Measure AA Funds.**

Applications should be emailed to: [grants@sfbayrestore.org](mailto:grants@sfbayrestore.org). If you are unable to email your application, you may send the electronic files on a CD or other common electronic storage device. Mail the files to:

State Coastal Conservancy      1515 Clay Street, 10<sup>th</sup> Floor      Oakland, CA 94612

**Grant applications must be received by the San Francisco Bay Restoration Authority by 5pm PST on November 26, 2018.**