

SAN FRANCISCO BAY RESTORATION AUTHORITY

Staff Recommendation
March 3, 2023

Goat Island Tidal Marsh Restoration and Public Access Project

Project No. RA-037
Project Manager: Diana Fu

RECOMMENDED ACTION: Authorization to disburse up to \$839,700 to the Solano Land Trust to conduct community engagement and prepare final designs and engineering plans, an adaptive management plan, and permit applications, for the restoration of 80 acres of tidal wetland, 8 acres of wetland-upland transition zone, and 1 acre of seasonal wetland, and related public access trails and amenities, at Goat Island Marsh in Solano County.

LOCATION: Rush Ranch Open Space, Solano County; Measure AA Region: North Bay

MEASURE AA PROGRAM CATEGORY: Vital Fish, Bird and Wildlife Habitat Program; Shoreline Public Access Program.

EXHIBITS

Exhibit 1: [Project Location and Site Map](#)

Exhibit 2: [Project Designs and Photographs](#)

Exhibit 3: [Draft Initial Study/Mitigated Negative Declaration for the Rush Ranch Project & Rush Ranch Conditional CEQA Approval](#)

Exhibit 4: [Project Letters](#)

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 \$839,700 (eight hundred thirty-nine thousand, seven hundred dollars) to the Solano Land Trust to conduct community engagement and prepare final designs and engineering plans, an adaptive management plan, and permit applications, for the restoration of 80 acres of tidal

GOAT ISLAND TIDAL MARSH RESTORATION AND PUBLIC ACCESS PROJECT

wetland, 8 acres of wetland-upland transition zone, and 1 acre of seasonal wetland, and related public access trails and amenities, at Goat Island Marsh in Solano County.

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.

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).
3. The San Francisco Bay Restoration Authority has independently reviewed and considered the *Rush Ranch Habitat Restoration Conditional Use Permit & Marsh Development Permit Initial Study and Mitigated Negative Declaration* (MND), which was adopted by the Solano Planning Commission on January 21, 2016 (Exhibit 3). As described in the MND and accompanying conditionally approved permit, mitigation measures have been incorporated into the project that will eliminate or reduce all potentially significant effects of the project below the level of significance. There is no substantial evidence that the project as mitigated will have a significant effect on the environment.

STAFF RECOMMENDATION

PROJECT SUMMARY:

Staff recommends that the Authority authorize the disbursement of an amount not to exceed \$839,700 to the Solano Land Trust (SLT) to conduct community engagement and prepare final designs and engineering plans, an adaptive management plan, and permit applications, for the restoration of 80 acres of tidal wetland, 8 acres of wetland-upland transition zone, and 1 acre of seasonal wetland, and related public access trails and amenities, at Goat Island Marsh in Solano County (Exhibit 1, Fig 1).

The proposed project will plan for the restoration of tidal wetlands in the San Francisco Bay through the breach of an existing levee at Goat Island Marsh that will increase ecological connectivity and enable fish and wildlife to migrate into new habitat areas. The project will also complete designs for a wetland-upland ecotone that allows habitats to migrate upland as sea level rises and 0.4 miles of public trail that will include public access amenities such as a boardwalk that meets outdoor accessibility standards and a viewing platform (Exhibit 2, Figure 1).

Goat Island is a diked marsh at Rush Ranch Open Space in Suisun Marsh that has the potential to provide habitat for numerous species, including listed and special status species, and establish important natural communities. Currently, the diked marsh at Rush Ranch is considered a

GOAT ISLAND TIDAL MARSH RESTORATION AND PUBLIC ACCESS PROJECT

recurring, expensive maintenance problem due to the repeated broken and patched levees, inlet and outlet structures in disrepair, and weed problems hindering trail access. The proposed project will plan the breach of a levee along Suisun Slough and restore historic tidal wetland habitat that will require far less costly maintenance than the current diked marsh.

The proposed project was described and planned as part of the Rush Ranch Management Plan (SLT, 2014). The State Coastal Conservancy provided funding for the Rush Ranch Management Plan, which included 30% design and CEQA document preparation. The proposed project will complete plans and designs and advance this project to be “shovel-ready.”

SLT will serve as the project lead and anticipates hiring consultants. The project includes collecting topographic and geotechnical field data to support design and baseline site conditions, developing draft and final versions of the Restoration and Monitoring and Adaptive Management Plans, applying for permits via the Bay Restoration Regulatory Integration Team (BRRIT) or directly from each agency once the design elements are sufficiently defined to present a project summary, and developing engineering plans and specifications and cost estimates to support applications for implementation grants.

The project also includes working with the San Francisco Bay National Estuarine Research Reserve (NERR) to facilitate early community engagement through a series of workshops with community-based partners to define public access improvements and consider the feasibility of a floating platform as an addition to the proposed viewing deck. The proposed project will create opportunities for youth to participate in a decision-making process that informs the project through small in-person gatherings, online surveys, and group discussions with partner organizations that are held at convenient times for the community to attend. Through the planning process, SLT will seek input on how to ensure that the project incorporates features that facilitate research about tidal marsh restoration, such as a proposed viewing deck.

SLT is well-qualified to carry out this project. SLT has been protecting Solano County’s open space since 1986 and has permanently protected over 22,000 acres of natural areas and agricultural lands while also stewarding the diverse and important habitats and species on those properties, including many that are threatened and endangered.

SLT is also fortunate to have deep ties to the Solano County community and has designed this project to benefit and provide a direct connection to the disadvantaged communities in Suisun City and other parts of Solano County. The Goat Island Restoration Project has been planned since the early 2000’s and has undergone extensive scientific and public review. It has received letters of support from State, County, and local elected officials, educators, and local non-profits (Exhibit 4).

Site Description:

Goat Island Marsh is an 80-acre diked marsh at Rush Ranch Open Space. The project area has the potential to provide habitat for numerous listed and special status species and establish important natural communities. The project area is within known range used by Delta smelt, longfin smelt, Chinook salmon, salt marsh harvest mouse, Suisun shrew, Ridgway’s rail, and more. Goat Island Marsh is part of the 2,070-acre Rush Ranch on the northern edge of Suisun Marsh in Solano County, California.

GOAT ISLAND TIDAL MARSH RESTORATION AND PUBLIC ACCESS PROJECT

A levee surrounds the former tidal wetland, and the diked marsh currently supports a dense cover of brackish marsh flora dominated by cattail and bulrush. Due to dense plant cover and little open water area under current diked conditions, there are few waterfowl and no fish on site. Both species richness and diversity are low within the diked marsh, and there is active invasion by non-native species throughout the project area. The upland perimeter contains narrow bands of middle and high brackish marsh vegetation and native transition species. The levee itself is dominated by non-native blackberry, perennial pepperweed, and common reed (Exhibit 2).

A levee trail currently provides public access to the project site, although the trail is in poor condition due to levee erosion, water inlet and outlet structures in disrepair, and non-native weeds that hinder public access. The levee trail loops through grazing land with two natural high points that serve as marsh viewing sites (Exhibit 2, Fig 3).

PROJECT FINANCING

San Francisco Bay Restoration Authority	\$839,700
Solano Land Trust Rush Ranch Endowment	\$30,974
Project Total	\$870,674

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

The proposed project is consistent with Government Code Section 66704.5 of the Authority’s enabling legislation and is therefore eligible for grant funding from the Authority. Consistent with Government Code Section 66704.5(a), Solano Land Trust is a non-profit entity and the project is located in Solano County, along the shoreline, within the Authority’s jurisdiction.

Consistent with Government Code Section 66704.5(b)(1) the project will “Restore, protect or enhance tidal wetlands, managed ponds, or natural habitats on the shoreline in the San Francisco Bay area” by creating subtidal, tidal, transitional and upland habitats in Suisun Marsh.

Consistent with Government Code Section 66704.5(b)(3), the project will “Provide or improve public access or recreational amenities that are part of a project to restore, enhance, or protect tidal wetlands, managed ponds, or natural habitats” by developing trails, a boardwalk, and an observation area accessible to people of all physical abilities in a newly-restored wetland area.

Consistent with Section 66704.5(e), this recommended grant will be used to support planning for the restoration of Goat Island Marsh, which is an eligible project as described above.

CONSISTENCY WITH MEASURE AA PROGRAMS AND ACTIVITIES:

The project is consistent with Measure AA’s *Vital Fish, Bird and Wildlife Habitat Program*’s purpose of improving wildlife habitat through the restoration and enhancement of subtidal, tidal, transitional and upland habitats, which will increase connectivity and help support migratory birds, shorebirds, and other wildlife.

GOAT ISLAND TIDAL MARSH RESTORATION AND PUBLIC ACCESS PROJECT

The project is consistent with Measure AA's *Shoreline Public Access Program's* purpose of enhancing the quality of life of Bay Area residents by creating a new trail that meets outdoor accessibility standards and providing much needed research opportunities for scientists, students, and members of the public to learn about tidal marsh restoration and combating sea level rise on a local level.

CONSISTENCY WITH MEASURE AA PRIORITIZATION CRITERIA:

1. **Greatest positive impact.** Goat Island Marsh, once restored, will create habitat for essential wildlife in San Francisco Bay. Restoration of Goat Island Marsh will add tidal marsh habitat to the mosaic of diked marsh, transition zone, small seasonal wetland, and upland habitat interface in Suisun Marsh, further increasing biodiversity. Many of these species are threatened or endangered. Once Goat Island Marsh is restored, the site will be open daily, free to the public, and used for hiking, nature observation, and research. The restoration of Goat Island Marsh will also greatly enhance educational and recreational opportunities in Suisun Marsh, as Rush Ranch is the only publicly accessible site in Suisun Marsh that is open year-round and has a primary educational component to its design. Rush Ranch is also the headquarters of Access Adventure, whose mission is to enrich the lives of people with disabilities and other underserved members of our community by providing outdoor recreation, open space access, education, and therapy, through a working partnership with horses. The Goat Island Restoration Project will incorporate designs for a trail that meets outdoor accessibility standards, a boardwalk, and viewing platform that Access Adventure participants can use at Rush Ranch.
2. **Greatest long-term impact.** Once completed, Goat Island Marsh will supplement the largest intact historic remnant of fully tidal marsh within Suisun Marsh. The project site has a relative lack of subsidence, which will allow for faster establishment of tidal marsh vegetation and help ensure the long-term benefits of restoration. Its design will ensure that the restored wetlands will adapt to climate change while providing important habitat benefits and public access for generations to come through its gradual transition design, sufficient area to support higher order channels, proximity to the slough channel, and contiguity with an existing large tidal marsh.
3. **Economically disadvantaged communities.** Goat Island Marsh is located near Suisun City, Fairfield, and Vallejo. Fairfield, Vallejo, and parts of Suisun City are identified by the Authority as Economically Disadvantaged Communities (EDCs). Up to 5,000 visitors come to Rush Ranch annually, including 30 school classes from EDCs in Fairfield, Vallejo, Suisun City and other locations for half-day educational programs led by SLT's Rush Ranch docents. The cities of Vallejo and Fairfield will benefit from the project's free educational opportunities and events that show climate adaptation in action. The aforementioned EDCs will also benefit from the continued existence of high-quality recreational trails and public access to one of the handful of intact ancient tidal marsh-upland habitat complexes in the entire Bay Area.
4. **Engage youth and young adults.** As part of the project, SLT will engage local organizations and schools through small community gatherings, online surveys, and group discussions held at convenient times for the community to attend. SLT will invite the participation of organizations and schools such as Access Adventure, Crescent Elementary School, Crystal Middle School, Solano County Office of Education, First 5 Solano, and the San Francisco Bay NERR. SLT will invite input about public access elements participants would like to see

GOAT ISLAND TIDAL MARSH RESTORATION AND PUBLIC ACCESS PROJECT

improved or constructed at the project site, such as improved trails, a boardwalk, viewing platform, floating dock, and interpretive signage.

5. **Monitoring, maintenance, and stewardship.** The Adaptive Management and Maintenance Plan (AMMP) will include regulatory monitoring requirements. Rush Ranch is planned for inclusion in the Wetland Regional Monitoring Program as a “benchmark site” and as such, it is likely that the basic permit compliance monitoring will be incorporated into the broader WRMP benchmark site monitoring. In addition, the SLT partnership with the San Francisco Bay NERR (Rush Ranch is one of the two bay area San Francisco Bay NERR reserve sites) includes long-term monitoring that is already in place for the existing tidal marsh and is likely to be extended to Goat Island. The NERR also includes a stewardship component and SLT has dedicated stewardship staff for Rush Ranch.
6. **Coastal Conservancy’s San Francisco Bay Area Conservancy Program.** The project is consistent with the San Francisco Bay Area Conservancy Program’s project selection criteria, as follows:
 - a. It is consistent with several local/regional plans including the:
 - Baylands Goals Science Update (2015)
 - Water Quality Control Plan for the San Francisco Bay Basin (2017)
 - Comprehensive Conservation Management Plan, also known as the Estuary Blueprint 2022
 - b. SLT owns the project site, has demonstrated success with monitoring and restoration, and has assembled a team of experts that can implement the project in a timely way.
 - c. This project helps meet regional tidal marsh restoration goals and will help the region adapt to sea level rise. If not quickly implemented, more time will be lost in meeting regional goals and protecting tidal marsh habitat from the impacts of climate change.
7. **San Francisco Bay Conservation and Development Commission’s Coastal Management Program.** The project meets the following priorities of the program:
 1. 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.
 2. Climate Change, Policy 6d: Where feasible and appropriate, effective, innovative sea level rise adaptation approaches should be encouraged.
 3. Public Access, Policy 15: To ensure the optimum use of the Bay for recreation, enhancing access of waterfront parts by improving Bay Trail segments that connect to the waterfront and interpretive programs that inform visitors about the wildlife and habitat values present in the park.
8. **San Francisco Bay Joint Venture’s Implementation Strategy.** The proposed project is on the Joint Venture’s list, ID #540, adopted in 2006. The project is consistent with the Joint Venture’s Implementation Strategy. It will support the restoration and enhancement of bay habitats and seasonal drainage habitats, remove invasive species, minimize risks of flooding and harm to public health, and will be implemented by a partnership of organizations and agencies. The proposed project is also consistent with the Joint Venture’s Prioritization Criteria for Adopted Projects. The project will cut future costs of maintaining the existing diked wetlands infrastructure and prevent further degradation of former tidal marshlands now impaired by water

GOAT ISLAND TIDAL MARSH RESTORATION AND PUBLIC ACCESS PROJECT

control structures. The proposed project will bring Goat Island Marsh restoration to “shovel-ready” status.

COMPLIANCE WITH CEQA:

Pursuant to the California Environmental Quality Act (CEQA), the County of Solano prepared the *Rush Ranch Habitat Restoration, Facility Improvements, and Site Utilization Project Draft Initial Study and Mitigated Negative Declaration* (“MND”). The County adopted the MND on January 21, 2016. The proposed project is within the scope of the MND.

The MND identifies potentially significant impacts in the areas of air quality, biological resources, and cultural resources and adopts mitigation measures that would avoid these impacts or reduce them below the level of significance, such that the project would not cause significant impacts to the environment. Most of the impacts are short-term and associated with the construction phase of the project. Potential project impacts and relevant mitigation measures include:

Air Quality: The construction activities of the project could negatively impact air quality through an increase in dust and other particulate matter at and near the project area. SLT will require its construction contractor to implement a dust control plan that will include the Basic Construction Mitigation Measures as recommended by the Bay Area Air Quality Management District. These measures include watering all exposed surfaces two times per day, covering all haul trucks transporting soil, sand, or other loose material off-site, removing all visible mud or dirt track-out using wet power vacuum street sweepers at least once per day and prohibiting dry power sweeping, minimizing idling time by shutting equipment off when not in use and reducing maximum idling time to five minutes, maintaining all construction equipment properly and according to the manufacturer’s specifications, and posting a sign in a publicly visible location with the telephone number and person to contact at the lead agency regarding dust complaints.

Biological Resources: The construction phase of the project could potentially have adverse effects on special status plants, wildlife, and their habitats. To reduce potential impacts to less than significant levels, SLT will, among other measures, conduct pre-construction surveys and haze or remove western pond turtles from construction areas; retain a peninsula of marsh during expansion of the existing Goat Island Marsh pond and construct an additional pond of appropriate size, shape, and location; provide brush and large woody debris cover structures at intervals along Goat Island Marsh to provide alternate cover to coyotes with access to brackish marsh; provide cattle water supplies from ground water supplies such that the spring-head vegetation is not adversely affected; delineate and flag all vernal pool depressions and swales for avoidance by construction vehicles; distribute designated grading refuges for undetected larval or resting-state populations of uncommon, rare, or endemic invertebrates; inspect and flag potential salt marsh harvest mouse and Suisun shrew habitat for avoidance by construction vehicles; and initiate excavation of the cross-levee and L-shaped berm from upland areas outside of habitat supporting salt marsh harvest mouse and Suisun shrew.

Cultural Resources: Construction activities could cause a potentially significant impact to archeological resources and human remains. The following mitigation measures will be implemented to avoid significant impacts. SLT will conduct pre-excavation archeological testing or employ an on-site cultural monitor for each component of the project that would involve earth disturbance in previously undisturbed areas. If archeological deposits are

GOAT ISLAND TIDAL MARSH RESTORATION AND PUBLIC ACCESS PROJECT

encountered during construction activities, work will stop and the site will be inspected by a qualified archeologist within a 50-foot radius of the discovery; if human remains or any other funerary artifacts are discovered during construction activities, all work will cease within the immediate vicinity of the discovery and the Solano County coroner will be contacted immediately; and if the remains are deemed to be Native American, the coroner will notify the Native American Heritage Commission, which will in turn appoint and notify a most likely descendent to act as tribal representative. The representative will work with a qualified archaeologist to determine the proper treatment of human remains and associated funerary objects, and construction activities will not resume until the human remains are exhumed and official notice to proceed is issued.

Hazards and Hazardous Materials: Construction at the project site could disturb undiscovered contaminated soils and/or groundwater and expose workers, residents, and visitors at the project site to potentially hazardous materials. If SLT encounters contaminated soil and/or groundwater, it will stop work in the contaminated area and, if necessary, develop a remediation plan. SLT will also consult with the Regional Water Quality Control Board to avoid contamination of groundwater. In addition, SLT will test excavated soil and fill for the presence of hazardous materials before disposing it off-site.

Hydrology and Water Quality: Construction at the project site could cause significant impacts to water quality due to erosion, sedimentation, and the release of fuel, lubricants, and engine oil. SLT will avoid these potentially significant impacts by implementing a stormwater pollution prevention plan and establishing staging areas for equipment storage and maintenance away from sensitive resources.

Noise: Construction activities could cause significant noise impacts. SLT will mitigate these impacts by limiting outdoor use of heavy equipment to daytime hours between 7 AM and 7 PM.

Recreation: Construction of a public trail at the project site could have significant impacts on various natural resources, as described above. The mitigation measures adopted to protect air quality, biological resources, cultural resources, and water quality, and to prevent excessive noise and the release of hazardous substances, will avoid potentially significant impacts associated with trail construction.

In addition to the mitigation measures above, SLT will implement environmental commitments and best management practices identified in the Suisun Marsh Habitat Management, Preservation and Restoration Plan to further reduce the project's environmental impacts. These additional measures include: avoidance of native plants and wildlife communities; erosion control; water quality protection and site maintenance activities; dust control during construction and management activities; revegetation after site disturbance; best management practices for hazardous materials handling and pollution prevention; best management practices for air quality protection; invasive species management activities; best management practices for mosquito abatement; implementing a traffic and navigation control plan to reduce construction-related effects on local roadway and water systems; and complying with noise regulations and limiting construction hours to working hours, between 7:00 AM and 6:00 PM Monday through Friday, and 8:00 AM and 5:00 PM Saturday and Sunday.

Staff has independently evaluated the MND and concurs that there is no substantial evidence that the proposed project will have a significant effect on the environment. Staff therefore recommends that the Authority find that the project as mitigated avoids, reduces or mitigates potentially

GOAT ISLAND TIDAL MARSH RESTORATION AND PUBLIC ACCESS PROJECT

significant environmental effects to less than significant and that there is no substantial evidence that the project will have a significant effect on the environment.

Staff will file a Notice of Determination upon Board approval.