COASTAL CONSERVANCY

Staff Recommendation
August 2, 2012

BREUNER MARSH RESTORATION PROJECT

File No. 12-027-01
Project Manager: Marilyn Latta

RECOMMENDED ACTION: Authorization to disburse $920,000 of grant funds to the Conservancy from the U.S. Fish and Wildlife Service, and to disburse an additional $1,250,000 of Conservancy funds, to East Bay Regional Park District to implement a wetland restoration project at Breuner Marsh in the Point Pinole Regional Shoreline in Contra Costa County.

LOCATION: Breuner Marsh, Richmond, Contra Costa County (Exhibit 1).

PROGRAM CATEGORY: San Francisco Bay Area Conservancy

EXHIBITS

Exhibit 1: Project Location Map

Exhibit 2: Project Site Map

Exhibit 3: Restoration Design Plan

Exhibit 4: Draft and Final Environmental Impact Report (Separate CD)

Exhibit 5: Project Letters

RESOLUTION AND FINDINGS:
Staff recommends that the State Coastal Conservancy adopt the following Resolution pursuant to Sections 31160-31165 of the Public Resources Code:

"The State Coastal Conservancy hereby authorizes the disbursement of an amount not to exceed two million one hundred seventy thousand dollars ($2,170,000), of which nine hundred twenty thousand dollars ($920,000) are grant funds from the U.S. Fish and Wildlife Service, to East Bay Regional Park District (EBRPD) to implement the Breuner Marsh Restoration Project (the Project), subject to the following conditions:

1. The Project shall not commence and no Conservancy funds shall be disbursed for the project until the Executive Officer of the Conservancy has reviewed and approved in writing:
    a. A project work program, budget, and schedule.

b. A sign plan that acknowledges the funding from the Conservancy and U.S. Fish and Wildlife Service.

c. Documentation that EBRPD has obtained all permits and approvals required for the project under federal, state, and local law.

2. EBRPD shall insure compliance with and assist the Conservancy in complying with the grant terms of the U.S. Fish and Wildlife Service.

3. EBRPD shall ensure the provisions of the Mitigation and Monitoring Plan attached to the accompanying staff report as part of Exhibit 3 are implemented with the project."

Staff further recommends that the Conservancy adopt the following findings:

"Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed project is consistent with Chapter 4.5 of Division 21 of the Public Resources Code, regarding the resource goals of the San Francisco Bay Area Conservancy Program.

2. The proposed project is consistent with the Project Selection Criteria and Guidelines adopted on November 10, 2011.

3. The Conservancy has independently reviewed the environmental impact report for the "Breuner Marsh Restoration and Public Access Project" certified by EBRPD Board of Directors on July 3, 2012, pursuant to the California Environmental Quality Act, and finds no substantial evidence that the project, with the identified measures to avoid, reduce or mitigate the possible significant environmental effects, will have a significant effect on the environment."

PROJECT SUMMARY:

Staff recommends authorization to disburse $920,000 in grant funds from the U.S. Fish and Wildlife Service (FWS) with an additional $1,250,000 for a total of $2,170,000 to the East Bay Regional Park District (EBRPD) to implement the Breuner Marsh Restoration Project (the Project) in the City of Richmond, Contra Costa County. Provision of funding by the Conservancy will enable the EBRPD to complete final design plans and permitting, and then commence construction by the fall of 2013. Doing so will provide substantial enhancement to the degraded natural resources of the area, as there are relatively few tidal wetland restoration opportunities on the San Pablo Bay shoreline in North Richmond and northwestern Contra Costa County. Most of the shoreline has been filled and developed for a variety of uses that are not compatible with restoration or public access. These incompatible uses include refineries, railroad, active landfills, waste water treatment plants and industrial developments. What little that remains is often contaminated or has significant development infrastructure to be removed and/or contains significant volumes of fill that must be excavated in order to establish tidal marsh. The Breuner Marsh project presents a rare opportunity to restore habitats and provide public access to this part of San Pablo Bay.

The project area is approximately 150 acres, and currently consists of tidal salt marsh, low quality seasonal wetlands, uplands with small remnant patches of riparian vegetation and coastal

prairie. The proposed project will restore tidal and seasonal wetland, coastal prairie, and transitional scrub habitats of San Francisco Bay by removing imported fill, hazardous material and non-native vegetation and replacing with restored native habitats. Approximately 132 acres of previously filled tidal and seasonal wetlands will be restored, created or enhanced and tidal channels will also be dredged to improve tidal circulation. The remaining 18 acres of ruderal uplands will be converted into coastal prairie and transitional scrub habitats. Phase one of the project will be partially funded by Conservancy and FWS funds and includes final design and permitting, removal of imported contaminated fill, grading, construction of bridges, rough grading of trails, construction of a parking area and restroom, and control of non-native vegetation. Phase two of the Project will be funded by EBRPD with additional funding currently pending approval by the Wildlife Conservation Board and the Environmental Protection Agency. Phase two work includes final grading, paving trails, construction of a boardwalk and other minor public access facilities and interpretive signage. A 1.5 mile segment of the San Francisco Bay Trail will be constructed through the property, closing a key gap that links Point Pinole with underserved communities in Richmond. A 0.4 mile spur trail, interpretive exhibits, picnic facility, and overlook will also be provided.

EBRPD is the lead agency for the environmental analysis on the Project under the California Environmental Quality Act (CEQA) and has served as the Project lead since 2006. EBRPD's collaborative relationship with the Richmond community has enabled it to advance a large, challenging, and complex project in a fashion that has generated enthusiasm from the local Parchester Village residents, environmental organizations and regulatory agencies. Now, after years of effort, design and fundraising, EBRPD will use Conservancy Proposition 84 and Conservancy-granted FWS funds to complete the final design and permitting process, and is prepared to start implementation of Phase One of the Project in Fall 2013.

Site Description: Breuner Marsh is located at Point Pinole Regional Shoreline in the City of Richmond in northwestern Contra Costa County, California (see Exhibits 1 and 2). The Project area is approximately 150 acres, bounded by San Pablo Bay to the west, Rheem Creek and private property to the south, Union Pacific Railroad and Parchester Village to the east and Giant Marsh and the Point Pinole Regional Shoreline Park to the north. Approximately 120 acres of the Project area was acquired by EBRPD from a private party in January 2011. The remaining 30 acres is under long-term lease from the California State Lands Commission.

The Project area has been subject to a number of land uses and resulting impacts that have significantly altered the historic landscape. Impacts to the Project area include construction of the Union Pacific Railroad, Giant Powder Works, petroleum, natural gas, sanitary sewer and electrical utility projects, creek channelization, minor residential development and more than 100,000 cubic yards of imported fill. As a result, the historic wetland and upland habitats have been disrupted in most of the project area. However, remnant tidal salt marsh and coastal prairie still occur in small pockets.

The Project area consists of tidal flats, rock jetties, tidal marsh, seasonal wetland, riparian scrub, coastal prairie and ruderal upland. Despite numerous and regular disturbance the area still contains populations of the endangered California clapper rail and salt marsh harvest mouse, and the threatened California black rail. Providing new sustainable habitat for these and other special-status species have been major drivers in the project design (see Exhibit 3). A significant feature of the proposed project is its ability to accommodate a projected 55 inch rise in sea level

by the year 2100. Because the site contains so much imported fill it can be reused on site to establish higher areas where tidal wetlands can migrate inland as sea level rises. Other projects in the region often call for removal of dikes and importation of fill to create suitable elevations for tidal marsh establishment. The future supply of suspended sediment is diminishing in San Pablo Bay and natural marsh accretion may no longer be a viable method for marsh establishment in this area. As a result, projects like Breuner Marsh present some of the best remaining restoration opportunities for San Pablo Bay.

Another key design driver is to provide public access to the project area. Currently the area is closed to public access until it can be made safe and accessible. Safety improvements include removing imported debris and hazardous materials, and installing fences, gates and regulatory signage. Accessibility improvements with this funding include installing a parking lot and restroom. Phase two, to be funded by others, will include a new trail, scenic overlooks, bridges, boardwalk, picnic area, benches and interpretive exhibits. All facilities have been designed to be in compliance with the Americans with Disabilities Act (ADA), and are consistent with EBRPD trail and public access standards**.**

Project History: In 2007, EBRPD passed a 30-year bond measure to provide funding for open space acquisition and capital improvement projects, including the Bruener Marsh Project. Using its own bond funds, EBRPD acquired the Breuner Marsh property in 2011 at a cost of $6,875,000. Since that time EBRPD has conducted a feasibility study and prepared an EIR/S for the subject project. EBRPD is now looking to implement the proposed project following certification of the final EIR on July 3, 2012, and receipt of additional grant funding.

The Conservancy has been very supportive of conserving and restoring the north Richmond shoreline. Conservancy grant funds have been provided to prepare the Richmond Parkway Shoreline Pollution Mitigation Plan in 1995, a Rheem Creek Watershed Assessment and Conceptual Restoration Plan in 2007, and a North Richmond Shoreline Conservation Plan in March 2010. This would be the first time that the Conservancy has authorized funds for the proposed project.

The EBRPD completed a draft Environmental Impact Report (EIR) in March 2012 and three public meetings were conducted in Richmond to obtain input in developing the project alternatives, identifying potential environmental impacts and to receive comments on the adequacy of the draft EIR. EBRPD certified a final EIR on July 3, 2012. Several additional meetings were also conducted with federal, state and local regulatory agencies, funding agencies, elected officials and environmental organizations. Two Richmond-based small businesses are part of the project team and two City of Richmond interns were hired to work on development of the proposed project.

PROJECT FINANCING

Coastal Conservancy	$1,250,000
U.S. Fish and Wildlife Service (grant to Conservancy)	$920,000
East Bay Regional Park District	$1,000,000
Castro Cove Damage Assessment Trustees	$1,000,000
Wildlife Conservation Board (pending)	$1,000,000

U.S. Environmental Protection Agency (pending)	$1,000,000
East Bay Regional Park District (pending)	$1,830,000
Total Project Costs	**$8,000,000**

The anticipated source of the Conservancy's $1,250,000 funds will be the fiscal year 2008-09 appropriation from the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006, Public Resources Code § 75001 *et seq*. (Proposition 84). This funding source may be used for the protection of bays and coastal waters, including projects to protect and restore the natural habitat values of coastal waters and lands, pursuant to the Conservancy's enabling legislation, Public Resources Code § 31000 *et seq*. (Public Resources Code § 75060(b)). The restoration of the wetlands at Breuner Marsh will facilitate restoration of natural habitat values of the San Francisco Bay watershed, a coastal watershed and is consistent with the Conservancy's statutory mission as discussed below in "Consistency with Conservancy's Enabling Legislation." Therefore the propose project is an appropriate use of Proposition 84 funds.

The other Conservancy funds provided under this authorization are from the U.S. Fish and Wildlife Service's National Coastal Wetlands Conservation grant awarded to the Conservancy specifically for the Breuner Marsh Restoration project. The total grant amount is $1,000,000; $920,000 will be used for project costs and $80,000 will support Conservancy project management.

EBRPD is actively engaged in fundraising for the project and construction of the project will proceed in phases with independent utility, such that habitat and other improvements will be beneficial even in the event of delays in implementation of the full project.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:
The proposed project would be undertaken pursuant to Chapter 4.5 of the Conservancy's enabling legislation, Public Resource Code Sections 31160-31165, which states that the Conservancy may award grants in the nine-county San Francisco Bay Area to help achieve the goals of the San Francisco Bay Area Conservancy Program. The proposed project is located in Contra Costa County, one of the nine San Francisco Bay Area counties. The following goals of the San Francisco Bay Area Conservancy Program are achieved by this proposed project:

Section 31162(b), authorizes the Conservancy to award grants to "protect, restore, and enhance natural habitats and connecting corridors, watersheds, scenic areas, and other open-space resources of regional importance". This project entails the restoration and enhancement of tidal and seasonal wetland, coastal prairie, and transitional scrub habitats of San Francisco Bay and is consistent with the restoration and enhancement of natural habitats.

Section 31162(a), authorizes the Conservancy to award grants to "improve public access to, within, and around the bay, coast, ridgetops, and urban open spaces, consistent with the rights of private property owners and without having significant adverse impact on agricultural operations and environmentally sensitive areas and wildlife through completion and operation of regional bay, coast, water, and ridge trails systems…". This Project includes the construction of a

parking lot for access to and the rough grading for a 1.5 mile section of the Bay Trail that is planned to avoid significant environmental impacts on the environmentally sensitive areas and wildlife of the Project area, as well as a spur trail and additional recreational facilities that are part of Phase 2 of the Project.

Section 31162(d), authorizes the Conservancy to award grants to "promote, assist, and enhance projects that provide open space and natural areas that area accessible to urban populations for recreational and educational purposes." This project would enhance a natural area that will be easily accessible by the residents of the City of Richmond, an urban population of 103,701, and nearby communities for recreational and educational purposes.

The proposed project satisfies all of the criteria for determining project priority under Section 31163(c) as follows: 1) the proposed Project is supported by adopted regional plans including the Baylands Ecosystem Habitat Goals Report (1999), San Francisco Bay Subtidal Habitat Goals Report (2010), San Francisco Bay Joint Venture Implementation Strategy (2011), San Francisco Estuary Comprehensive Conservation and Management Plan (2007), Castro Cove Damage Assessment and Restoration Plan (2008), Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California (Draft, 2010), San Francisco Bay Basin Water Quality Control Plan (2007), Richmond Parkway Shoreline Pollution Mitigation Plan (1995), San Francisco Bay Trail Plan (2012), City of Richmond North Richmond Shoreline Specific Plan (1993), City of Richmond General Plan (2012), City of Richmond Bicycle and Pedestrian Plan (2011), EBRPD Master Plan (1996), and Point Pinole Regional Shoreline Land Use Plan (1998); 2) the proposed project serves a regional constituency by creating habitat for endangered species; 3) the proposed project can be implemented in a timely manner; 4) the proposed project provides benefits to endangered species that would be lost if the project is not quickly implemented; and 5) the proposed project will include significant matching funds from EBRPD.

CONSISTENCY WITH CONSERVANCY'S STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):

Consistent with **Goal 10, Objective B,** the Project will develop a final restoration plan to enhance 60 acres of wetland habitats that involves governmental and non-governmental partners, includes outreach to involve other interested parties in restoration, and incorporates scientific knowledge about impacts from global climate change into the plan design.

Consistent with **Goal 10, Objective C,** the Project will restore 60 acres of wetland habitats with matching funds and a strong monitoring plan.

Consistent with **Goal 10, Objective E,** the Project will develop plans to restore 90 acres of coastal prairie and transitional scrub habitats, which provide wildlife habitat, scenic resources, and other upland habitat resources.

Consistent with **Goal 10, Objective F**, the Project will restore 90 acres of coastal prairie and transitional scrub habitats.

Consistent with **Goal 11, Objective A,** the Project plan will include recreational facilities including picnic and staging areas, a parking lot, interpretive signs, restroom, and trails.

Consistent with **Goal 11, Objective B,** the Project will implement these recreational facilities.

Consistent with **Goal 11 Objective C**, the Project will increase the amount of land accessible to the public.

Consistent with **Goal 11 Objective D**, the Project will develop plans for 1.5 miles of the San Francisco Bay Trail.

Consistent with **Goal 11 Objective E,** the Project will construct 1.5 miles of the San Francisco Bay Trail.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA & GUIDELINES:

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines adopted November 10, 2011, in the following respects:

Required Criteria

1. **Promotion of the Conservancy's statutory programs and purposes:** See the "Consistency with Conservancy's Enabling Legislation" section above.
2. **Consistency with purposes of the funding source:** See the "Project Financing" section above.
3. **Support of the public:** The Project has a broad base of support from several public agencies, non-profit organizations, elected officials and individuals, including the Castro Cove Trustee agencies, San Francisco Bay Trail Program, Trails for Richmond's Action Committee (TRAC), San Francisco Bay Joint Venture, Golden Gate Audubon Society, The Watershed Project and The Watershed Nursery. Senator Dianne Feinstein and Congressman George Miller has been supportive of providing funding for the proposed project in an effort to see more restoration projects being conducted in underserved areas, such as the City of Richmond. The Castro Cove Trustee agencies support the proposed project because it helps them implement the Natural Resource Damage Assessment mitigation by providing $1,000,000 to EBRPD for construction of tidal marsh. The San Francisco Bay Trail Program supports the proposed project because it will close a 1.5 mile gap in the San Francisco Bay Trail Plan and it will help implement a trail feasibility study that they funded. The Trails for Richmond's Action Committee has had a long-term involvement in conservation of Breuner Marsh and in development of the San Francisco Bay Trail. The San Francisco Bay Joint Venture has adopted the proposed project because it helps implement their restoration strategy for San Francisco Bay. The Golden Gate Audubon Society supports the proposed project because it provides for the conservation of natural resources and provides them with opportunities for further development of their community restoration programs. The Watershed Project supports the proposed project because it creates new opportunities for public education and restoration at Point Pinole Regional Shoreline. The Watershed Nursery has conducted site visits, commented on the project design and provided their expertise in developing the plant materials for the project. See letters of support in Exhibit 5.
4. **Location:** The Project is located in the City of Richmond in Contra Costa County, within the jurisdiction of the San Francisco Bay Area Conservancy Program.

5. **Need:** The Conservancy has a long and valued partnership with EBPRD in providing grant funds for acquisition, capital improvement and restoration projects. Conservancy funds provide the flexibility to address the full suite of project funding needs, such as feasibility studies, environmental documents, and design and permit applications; all of which provide critical information for project development and other grant applications. Conservancy grants combined with EBRPD funds help leverage other grant funds on a regular basis.

   Should the Conservancy not provide the requested grant funds, EBRPD would not be able to proceed with the proposed project until 2014 due to the long lead-time required, comparative inflexibility and procedural requirements of other grant programs. In short, only the Conservancy grant provides EBRPD with the necessary funding to proceed with the proposed project in a timely and efficient manner.

6. **Greater-than-local interest:** The recovery of endangered species and restoration of tidal marsh habitat is of regional significance.

7. **Sea level rise vulnerability:** Sea levels are anticipated to rise a minimum of eighteen inches by 2050 and fifty-five inches by 2100. The westernmost portion of Breuner Marsh abuts San Pablo Bay. This area is subject to the effects of sea level rise, along with increased wave erosion, storm surge and salinity encroachment. Most of the shoreline is relatively gentle with large tidal flats and tidal marsh that help attenuate storm surge and wave erosion associated with sea level rise. However, there are some areas where shoreline erosion will accelerate with sea level rise. Such areas will eventually become tidal flat or subtidal, and tidal wetlands will retreat inland to higher elevations less subject to erosion. The restoration (and public access) improvements of the project were specifically designed to accommodate this eventuality.

Additional Criteria

8. **Urgency:** Failure to implement the Project in the near future will mean not providing endangered species habitat and public access and trails at the site. Implementing the project will also build on the momentum created by the EBRPD, FWS, the Conservancy, for restoration of endangered species habitat in the Rheem Creek Watershed which drains into the bay on the south side of the Project area.

9. **Leverage:** See the "Project Financing" section above.

10. **Readiness:** The Project is scheduled to be constructed in Fall 2013 provided the necessary funding can be obtained.

11. **Cooperation:** The conceptual plan for restoring the site was developed with significant input from many organizations, including the Bay Conservation and Development Commission, US Fish and Wildlife Service, Castro Cove Damage Assessment Trustees, and the San Francisco Bay Joint Venture.

12. **Vulnerability from climate change impacts other than sea level rise:** This area is subject to cool wet winters and warm dry summers. With climate change, the period of precipitation is anticipated to become shorter and summer drought periods longer and warmer. Some areas may be subjected to more intense short-duration storms resulting in flashy flows from the upper Rheem Creek Watershed into San Pablo Bay. Culverts and bridges in the area may

require more frequent maintenance to remove accumulated sediment and debris to prevent over topping or flooding of adjacent areas. There are no structures in flood prone areas that might be at risk of damage from increased runoff or flooding. Plant communities in coastal California are well adapted to fluctuations in climatic patterns and can withstand wetter and dryer periods. With hotter and dryer periods some seasonal wetland areas lose water-loving trees, such as willows, but these would be replaced by tidal marsh species as sea level rises. Grasslands in the project area are the most tolerant of drought conditions and are anticipated to increase in some areas that are less adaptable to higher temperatures and longer drought periods. This may result in an increase in fuels for wildfire; however, grasslands will be managed to reduce fuel loads and reduce the risk of wildfire.

13. **Minimization of Greenhouse Gas Emissions**: The Environmental Impact Report for the Project provides a comprehensive discussion of temporary construction air quality impacts and the resulting air quality benefits of the project post-construction. (See Exhibit 4). The Project is designed so that construction will avoid potentially significant short-term impacts to air quality. Avoidance is achieved through the long duration of the construction period, emission standards for construction equipment (Tier 3 emission standards) and adopted mitigation measures, such as work prohibitions when wind speeds exceed a threshold, suppression of dust by frequent application of water, and grass seeding to prevent wind (and water) erosion.

Greenhouse gasses will be reduced post-construction primarily through vehicle trip reduction and carbon sequestration by restored habitats. Construction of the San Francisco Bay Trail will allow for local residents and commuters to access or pass through the project area on foot or by bicycle. This will reduce the number of local vehicle trips and traffic volumes on the Richmond Parkway. These benefits will increase with time as the adjacent properties are developed and more residents seek access to the project area for recreation or to commute through the project area to places of employment.

Tidal marshes are known to sequester significant amounts of atmospheric carbon. According to Trulio et. al. (2007) "restoring tidal salt marshes is one of the most effective measures for sequestering carbon." Other studies have demonstrated these beneficial effects on greenhouse gas reduction. Seasonal wetlands and coastal prairie will also sequester some carbon.

CONSISTENCY WITH SAN FRANCISCO BAY PLAN:

The Project is within the permit jurisdiction of the San Francisco Bay Conservation and Development Commission ("BCDC").

The project is consistent with the following policies of BCDC's San Francisco Bay Plan:

Part III: The Bay as a Resource

<u>Water Quality</u>

- To the greatest extent feasible, the Bay marshes, mudflats, and water surface area and volume should be maintained and, whenever possible, increased.

Water Surface Area and Volume

- Water circulation in the Bay should be maintained, and improved as much as possible.

Marshes and Mudflats

- To offset possible additional losses of marshes due to necessary filling and to augment the present marshes: (a) former marshes should be restored when possible through removal of existing dikes; (b) in areas selected on the basis of competent ecological study, some new marshes should be created through carefully placed lifts of dredged spoils; and (c) the quality of existing marshes should be improved by appropriate measures whenever possible.

Part IV: Development of the Bay and Shoreline

Public Access

- In addition to the public access to the Bay provided by waterfront parks, beaches, marinas, and fishing piers, maximum feasible access to and along the waterfront and on any permitted fills should be provided in and through every new development in the Bay or on the shoreline, whether it be for housing, industry, port, airport, public facility, wildlife area, or other use, except in cases where public access would be clearly inconsistent with the project because of public safety considerations or significant use conflicts, including unavoidable, significant adverse effects on Bay natural resources. In these cases, in lieu access at another location preferably near the project should be provided.
- Public access to some natural areas should be provided to permit study and enjoyment of these areas. However, some wildlife is sensitive to human intrusion. For this reason, projects in such areas should be carefully evaluated in consultation with appropriate agencies to determine the appropriate location and type of access to be provided.

COMPLIANCE WITH CEQA:

The Draft Environmental Impact Report (DEIR) for the Breuner Marsh Restoration and Public Access Project was released and circulated for public comment on March 9, 2012. On July 3, 2012, the East Bay Regional Park District (EBRPD), as the lead agency under the California Environmental Quality Act (CEQA), certified a comprehensive Final Environmental Impact Report (FEIR), made findings, and adopted a mitigation monitoring and reporting program for the Project. (See Exhibit 4 for Draft and Final EIR). The Conservancy, as a responsible agency, is funding Phase one of this Project. Phase one includes final design and permitting, removal of imported contaminated fill, grading, construction of bridges, rough grading of trails, construction of a parking lot and restroom, and control of non-native vegetation.

The FEIR includes analysis of the potential environmental effects of the portion of the project to be funded by the Conservancy, and incorporates changes and mitigation measures to address this portion of the Project's potentially significant impacts to the environment. These effects are in the areas of air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality and noise. As the Lead Agency, and as a condition of the Conservancy proposed authorization, EBRPD will assume responsibility for assuring that the mitigation measures required by the FEIR are properly implemented and monitored.

Staff believes that the project, with measures included as mitigation, reduces or mitigates the potentially significantly effects to a less than significant level (as discussed in more detail below).

The potential significant environmental effects identified in the EIR and the corresponding mitigation measures for the portion of the Project subject to this authorization, are as follows:

Air Quality

The Project's impacts would be limited to temporary fugitive dust emissions and the temporary production of substantial emissions of nitrogen oxide released during construction activities including the use of heavy, off-road, and on-road construction equipment and the grading and excavation activities. The mitigation measures adopted as part of the FEIR require that the proposed Project comply with Bay Area Air Quality Management District (BAAQMD) Basic Control Measures for reducing construction emissions of particulate matter. This includes the following:

1) Water all active construction areas at least twice daily. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever possible.

2) Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 24-inches of freeboard (i.e. the minimum required space between the top of the load the top of the trailer).

3) Apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.

4) Sweep streets (with water sweepers using reclaimed water if possible) at the end of each day if visible soil material is carried onto adjacent paved roads.

To control and mitigate the temporary production of substantial emissions of nitrogen oxide released during construction activities the adopted FEIR requires the construction contractor implement the following measures to reduce construction exhaust emissions of nitrogen oxide during grading and construction activities. To assure compliance, EBRPD shall verify that these measures have been implemented during normal construction site inspections:

1) The construction contractors shall use construction equipment rated by the United States Environmental Protection Agency as having Tier 3 or higher exhaust emission limits for equipment over 50 horsepower. Tier 3 engines between 50 and 750 horsepower are available for 2006 to 2008 model years. A list of construction equipment by type and model year shall be maintained by the construction contractor on-site.

2) The construction contractor shall ensure that all construction equipment is properly serviced and maintained to the manufacturer's standards to reduce operational emissions.

3) The construction contractor shall limit nonessential idling of construction equipment to no more than five consecutive minutes.

4) The construction contractor shall reduce on-road exhaust emissions of nitrogen oxide during hazardous material and inorganic debris removal and construction activities by limiting off-site disposal hauling of hazardous materials and inorganic debris to landfills to no more than 13 truck trips per day.

Biological Resources

Construction related activities of the Project may harm special status wildlife species including the Salt Marsh Harvest Mouse, San Pablo Vole, and several special-status bird species, and other nesting birds protected by the Migratory Bird Treaty Act. Mitigation measures adopted as part of the EIR include the following:

1) Protocol-level surveys shall be conducted in suitable salt marsh habitat for California clapper rail and California black rail prior to construction each year of the proposed construction activity. Protocol surveys are conducted around dawn or dusk during February and March when rails are most likely to vocalize during their breeding season. If active nests are found, consultation with agency staff would be required to determine appropriate setbacks or work windows.

2) Pre-construction nesting surveys shall be conducted for San Francisco Common Yellowthroat, Bryant's Savannah Sparrow, San Pablo Song Sparrow, Loggerhead Shrike, Short-eared Owl, White-tailed Kite, Northern Harrier, and other nesting birds protected by the Migratory Bird Treaty Act. Surveys shall be conducted by a qualified biologist within 14 days of the onset of disturbance to nesting habitats. If nests are found, they will be flagged and a suitable buffer area established. No work will be conducted within this buffer area until young have fledged and are independent of the nest. Breeding bird surveys are not needed if work is conducted outside the nesting season (between September 1 and January 31).

3) Pre-construction surveys carried out for California clapper rail and California black rail would also detect other tidal marsh wildlife species. Exclusion fencing shall be installed prior to construction, and vegetation shall be cleared in phases using hand tools, exclusion fencing, special status species sensitivity training, and/or biological monitors.

4) Project-specific avoidance and minimization measures consistent with those required by the USFWS, specified as permit conditions, shall be carried out. They are likely to include: preconstruction surveys in SMHM habitat; use of hand-powered tools for initial vegetation clearing where possible; vegetation removal supervised by a Service-approved biologist; re-supplying native plant seed to disturbed wetlands as a SMHM source; use of exclusion fencing and other means to prevent trapping mice in equipment; work stoppage during extreme high tides to allow SMHM migration to higher grounds; and development of, and adherence to, a habitat mitigation and monitoring plan.

Cultural Resources

Project excavation and regrading could destroy the remnants of a shellmound known as CA-CCO-266, recorded in the southeast of the site and as yet undiscovered and unrecorded archaeological remains. Additionally, fossils with important scientific value and unique geological features or human remains could be unearthed during construction activities. In order to avoid impacts to unknown subsurface archaeological deposits associated with CA-CCO-266, the previously documented site boundary will be flagged prior to restoration activities. The flagged area will encompass the previously recorded boundaries of the site, according to Nelson 1907 sketch map, and include a 100-foot buffer in order to delineate CA-CCO-266 as an Environmentally Sensitive Area (ESA). During project implementation, no ground disturbances will be conducted within the ESA, except for the removal of surface pavement from within the northeastern portion of the ESA. A qualified archaeologist will monitor the pavement removal activities within the designated ESA.

Mitigation measures for the remaining potential impacts are all similar in nature. Prior to construction, construction personnel shall be briefed by EBRPD regarding what to do in the event of the discovery of cultural artifacts, human remains, or paleontological resources. If any such remains are discovered, work shall be stopped within a 100-foot wide buffer zone for discovery of cultural artifacts or the vicinity of the discovey for human remains, and paleontological resources and pertinent personnel shall be notified.

Geology and Soils

Potentially significant impacts analyzed include: seismic activity that could damage facilities including restrooms, elevated structures such as boardwalks and bridges and/or injure people; ground disturbance and soil cut and fill related to Project excavation and regrading could result in soil erosion and siltation to the Bay, wetlands, and other sensitive plant and wildlife habitat; shrinking and swelling of expansive soils, lateral spreading or lurching failure of sediments could damage facilities and/or injure people and structures: Mitigation measures for these potential impacts include the following:

1) A design-level Geotechnical Investigation shall be prepared for the site under the direction of a California Registered Geotechnical Engineer, or Civil Engineer experienced in geotechnical and foundation engineering. The Geotechnical Investigation shall establish the seismic design parameters, as determined by the geotechnical engineer or civil engineer in accordance with requirements of the California Building Code. The Geotechnical Investigation shall be reviewed and approved by the by the City Engineer and by the EBRPD Engineer as part of structural design review of the bridges and boardwalks.

2) EBRPD shall apply to the City of Richmond for grading and building permits from the Planning, Engineering, and Building Divisions, and modify designs to ensure that permits are granted. This will ensure City review of grading and drainage plans; alterations to the FEMA-designated 100-year floodplain; and buildings and other structures such as bridges and boardwalks, and adherence to the City of Richmond Municipal Code and applicable

Ordinances, including grading, drainage, and seismic design criteria for planned structures and buildings.

3) All construction, notably foundation engineering shall be performed in accordance with the recommendations of the Geotechnical Investigation. The design plans shall identify specific mitigation measures to reduce the liquefaction potential of surface soils. Mitigation measures may include excavation and replacement as engineered fill, reduced foundation loading, and other ground improvement methods.

4) EBRPD shall complete an Erosion Control and Revegetation Plan to be submitted to the City of Richmond in conjunction with the Grading Permit Application. The Erosion Control and Revegetation Plan shall include winterization, dust control, erosion control, and pollution control measures conforming to the Association of Bay Area Government (ABAG) Manual of Standards for Erosion and Sediment Control Measures and the California Stormwater Quality Association (CASQA) Stormwater Best Management Practice Handbook Portal: Construction. The Erosion Control Plan shall describe the "Best Management Practices" (BMPs) to be used during and following construction to control pollution resulting from both storm and construction water runoff. The Plan shall include locations of vehicle and equipment staging, portable restrooms, mobilization areas, and planned access routes. Recommended soil stabilization techniques include: placement of straw wattles, silt fences, berms, and gravel construction entrance areas or other control to prevent tracking sediment onto city streets and into storm drains. EBRPD shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) for the Proposed Project. The SWPPP and Notice of Intent must be submitted to the State Water Resources Control Board to receive a Construction General Permit. The updated plan shall address National Pollutant Discharge Elimination System (NPDES) requirements and be designed to protect water quality both during and after construction. The Project SWPPP shall include a description of the "Best Management Practices" (BMPs) used to prevent the discharge of other construction-related NPDES pollutants beside sediment (i.e. paint, concrete, etc.) to downstream waters and adjacent Bay waters. After construction is completed, all drainage facilities shall be inspected for accumulated sediment from the project, and these drainage structures shall be cleared of debris and sediment.

5) The design-level Geotechnical Investigation for bridges, boardwalks, and other structures, shall determine the depth and extent of potentially unstable fill soil and Bay Mud and to develop recommendations for excavation, grading, and fill soil placement and stabilization. Based on results of this investigation, the Geotechnical Engineer or Civil Engineer shall determine appropriate measures to stabilize the potentially unstable site soils. Consolidation testing of the Bay Mud soils present may need to be performed as part of the design-level Geotechnical Investigation, and estimates of settlement for the site shall be developed, as needed. Methods of unstable soil stabilization for Bay Mud may include construction of driven pile foundations that support structures on materials located below fill soils and Bay Mud, and other methods as recommended in the Geotechnical Investigation. Methods for stabilization of fill soils may include guidance

on requirements for fill segregation and placement, inclusion or exclusion of concrete and other demolition debris and rubble, limits on fill height, fill slope.

6) A design-level Geotechnical Investigation shall be prepared for the site under the direction of a California Registered Geotechnical Engineer or a Civil Engineer experienced in soils and foundation design and shall include analysis for expansion potential of the site soils. Proper foundation engineering and construction shall be performed in accordance with the recommendations of the Geotechnical Investigation. The Geotechnical Investigation shall be reviewed and approved by the EBRPD Project Engineer and the City Engineer, as appropriate. The design plans shall identify specific mitigation measures to reduce the effects of expansive surface soils. Mitigations measures may include the following: excavate expansive soils and replace with at least 1 foot of non-expansive fill. Design and construct structures to withstand expected stresses by the implementation of the following: minimize use of slab-ongrade floors; support buildings and slabs on non-expansive materials; chemically treat expansive materials to reduce expansion potential; avoid siting structures across soil materials of substantially different expansive properties; extend foundations below the zone of seasonal moisture change; utilize pier-and-gradebeam foundation systems where appropriate; utilize special bending resistant design; and prevent accumulation of surface water adjacent to buildings.

Hazards and Hazardous Materials

The proposed Project's excavation and regrading could disturb existing hazards and hazardous materials. The following potential hazards and hazardous materials can be avoided or mitigated as follows:

1) The proposed trail route would be within a few tens of feet of the underground Shell pipeline on the eastern side of the Project Site and construction could damage the pipeline. This hazard can be avoided by placement of fill within a zone 10 feet either side of a known pipeline location, or excavation within 25 feet, would be avoided if possible. If field conditions dictate a reduced distance in certain locations, the absolute minimum distance for excavation would be 5 feet from any high risk utility pipeline. No more than 1 foot of additional fill shall be placed on top of a pipeline. Existing markers shall be relocated as needed.
2) Contamination from past pipeline leaks other petroleum chemicals formerly used on the project site, could be discovered during grading. If any oil-stained soil, or soil with a strong petroleum odor is discovered during project site grading, work will halt, samples will be taken, and the excavation will be covered until the results are received. If contamination above regulatory limits is found, the contaminated soil shall be remediated in accordance with standard procedures.

3) Lead-contaminated soils may be present on the project site in fill of the former Rheem Creek channel and could result in exposure to construction workers and nearby residents to lead during project construction. During the site grading process, the fill material from Old Rheem Creek will be sampled and analyzed for lead and other metals. If results are

above applicable regulatory standards, the soil will be either excavated and removed, or capped and buried in place.

Hydrology and Water Quality

To mitigate potentially significant impacts to surface water quality during construction, EBRPD would implement the following mitigation measure:

1) Detailed plans for temporary construction related erosion control shall be incorporated in the Project plans. Construction plans shall specify all erosion and sediment control measures.

2) A Stormwater Pollution Prevention Plan (SWPPP) and a Spill Control and Countermeasures Plan (SCCP) shall be prepared by EBRPD. The SWPPP shall include Best Management Practices (BMPs) to prevent or minimize stormwater pollution during construction activities, and post construction. The Project Erosion Control and Revegetation Plan, and a Spill Control and Countermeasures Plan, shall be included in the SWPPP, and in the Construction Documents. BMPs shall be prepared and implemented to control short-term construction-related water quality impacts.

3) All refueling and/or maintenance of heavy equipment shall take place at a minimum of 50 feet away from the top of bank of Rheem Creek and all identified jurisdictional wetlands and Waters of the US drainage courses. The refueling/maintenance and construction staging area shall be bermed, graveled, or covered with straw and incorporate measures for capture of any accidental spills.

Additional potentially significant impacts to surface water quality may occur if the new bridge over Rheem Creek and any channel modifications are designed without appropriate consideration of the likely flows and the Creek floods onto the project site and neighboring properties. These potentially significant impacts may be mitigated by compliance with a design-level Hydraulic Investigation report. Proper engineering design of pedestrian bridges and Rheem Creek channel modifications shall be performed in accordance with the recommendations of a Registered Civil Engineer experienced in hydraulic analysis and design of flood control channels. The Civil Engineer shall complete a detailed hydraulic analysis of Rheem Creek and develop recommendations regarding the design elevations of the pedestrian bridge in compliance with City of Richmond and Contra Costa County Flood Control and Water Conservation District floodplain management regulations, including 100-year flood elevation freeboard requirements, the locations of the bridge abutment structures with respect to flood flows, bridge abutment, and channel bank protection requirements. As Rheem Creek is a federal Flood Control Facility, the bridge must also meet (CCCFCWCD) and U.S. Army Corps of Engineers (Corps) requirements.

The Hydraulic Investigation report shall also include an evaluation of the Rheem Creek levee in the vicinity of the proposed parking area and pedestrian bridge, and design recommendations for the stabilization and mitigation of any identified
levee deficiencies and conditions that the Project may impact, or that might threaten Project improvements. The Hydraulic Investigation report shall be reviewed by the EBRPD Project

Engineer, the City Engineer and Floodplain Manager, and the CCCFCWCD responsible engineer, and staff from the Corps Readiness Branch as appropriate.

The EBRPD shall obtain grading and building permits and complete final design review for the parking area and restroom in floodplain, and for the pedestrian bridge over Rheem Creek. Plan review of the grading and drainage plans, alterations to the FEMA designated 100-year floodplain for the parking lot, Bay Trail, and review of the planned restrooms and pedestrian bridges shall be completed by the respective Divisions and Departments for adherence to the City of Richmond Municipal Code, including Article XII, Chapter 12.56, which regulates structures within 100-year floodplains. The EBRPD shall also obtain approval for modifications to Rheem Creek from the Contra Costa County Flood Control and Water Conservation District, the local agency representative for the US Army Corps of Engineers Flood Control Project Improvements to Rheem Creek. This will require concurrent approval from the US Army Corps of Engineers under Section 408 of the 1890 Rivers and Harbors Act, for modifications to an existing flood control facility.

Noise

Temporary noise from impact pile driving methods during construction (for the installation of piers for the portions of the Giant Marsh boardwalk running parallel to the rail lines) could be annoying to closest neighbors in Parchester Village and would be above the weekday allowable limits for stationary construction equipment. To mitigate the annoyance, Parchester Village residents shall be notified one week before, and again 24 hours prior to the start of pile installation across Giant Marsh. Activities shall be restricted to weekdays between 9:00 a.m. and 5:00 p.m.

Conclusion

Conservancy staff independently has reviewed the EBRPD's certified FEIR for its potential impacts on the portion of the Project subject to this authorization. Staff recommends that the Conservancy find that there is no substantial evidence that the Project, as mitigated, will have a significant effect on the environment. Mitigation measures included in the Project design contained in the Mitigation and Monitoring Reporting program, and as required by local, state and federal law, will reduce the Project's potential adverse impacts to less than significant levels.

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