

IMPLEMENTATION APPROACH

ALBANY BEACH RESTORATION AND PUBLIC ACCESS FEASIBILITY STUDY

EASTSHORE STATE PARK, CALIFORNIA



LSA



June 16, 2011

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Submitted to the:

East Bay Regional Park District
2950 Peralta Oaks Court
Oakland, California 94605-0381
510.544.2627

Prepared by:

LSA

LSA ASSOCIATES, INC.
157 Park Place
Point Richmond, California 94801
510.236.6810

LSA Project No. EBR1001



Philip Williams & Associates, Ltd.
Environmental Hydrology
550 Kearny Street, Suite 900
San Francisco, California 94108
415.262.2300

Kathy Boyer, Ph.D.
Romberg Tiburon Center for
Environmental Studies
San Francisco State University
3152 Paradise Drive
Tiburon, California 94920
415.338.3751



Vallier Design Associates, Inc.
210 Washington Avenue, Suite G
Point Richmond, California 94801
510.237.7745

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1.0 INTRODUCTION

1.1 BACKGROUND

In 2002 the State of California classified 2,262 acres of uplands and tidelands with frontage on San Francisco Bay as a State Seashore and named the unit Eastshore State Park (Park). The Park consists of approximately 2,002 acres of tidelands and 260 acres of upland areas along a nine-mile stretch of the East Bay shoreline, between the City of Oakland on the south and the City of Richmond on the north. Eastshore State Park is jointly owned by the State of California Department of Parks and Recreation (CDPR) and East Bay Regional Park District (District). The District manages and operates the Park through an agreement with CDPR. As lead agency under the California Environmental Quality Act (CEQA), CDPR certified a *Final Environmental Impact Report* and approved the *Eastshore State Park General Plan* in 2002 (General Plan). The General Plan establishes land uses and identifies potential improvements for the Park. The approved General Plan was the result of a 22-month planning process that included four stakeholder meetings followed by four regional workshops to incorporate public input. Stakeholders included agencies, landowners, businesses, user groups and environmental groups.

1.2 ALBANY BEACH

The General Plan designates Albany Beach as a conservation area land use classification and the open waters have a recreation designation. *Conservation Areas are areas whose natural habitat values will be protected and enhanced while accommodating lower intensity recreation that is compatible and dependant on those values.* The management intent for this zone is to protect and enhance the habitat value of this area while enhancing public access. Guidelines specific to Albany Beach include the following:

- A-1: Protect the dune habitat at the Albany Beach by introducing boardwalks and/or fencing. Boardwalks should be designed to provide for wheelchair access.
- A-2: Restore the dune vegetation by removing noxious weeds (e.g., iceplant and Kikuyu grass) and planting locally native species that are adapted to this habitat, and explore the feasibility of re-introducing rare or endangered species that are native to the Bay Area, such as California seablite, San Francisco spineflower, and robust spineflower, to the dune area.
- A-3: Explore the feasibility of expanding the dune areas behind the beach.
- A-4: Protect and enhance eelgrass beds that exist off Albany Beach. Explore the possibility of these eelgrass beds being a possible mitigation site (i.e., a receiver site for mitigation from projects outside of the park project).
- A-5: Enhance beach/Bay access for non-motorized water craft by creating a vehicle drop-off and parking at the south end of the beach. Locate restroom facilities near the beach water access.

In considering the entire area of Eastshore State Park, the General Plan highlights key issues, many of which are directly applicable to Albany Beach. Even ten years later, these issues continue to be discussed when considering appropriate improvements and facilities; they include:

- Habitat protection and enhancement
- Landscape character
- Local versus statewide interests
- Dogs in the park
- Art in the park
- Circulation and access
- Shoreline and Bay access
- Future land acquisitions

The General Plan includes project-wide management goals and guidelines (e.g., Resource Management and Protection) to address the issues identified above. Those project-wide management goals and guidelines that are applicable to Albany Beach are referenced throughout this report. Management of specific areas is to adhere to appropriate **project-wide** goals and guidelines along with the **specific area** guidelines.

Recognizing the passing of 10 years since the adoption of the General Plan, some new issues are now part of the general discussion of land use, resource protection, public access and the San Francisco Bay:

- Sea level rise and its potential impacts to habitat and recreation
- Appreciation for enhancing native oyster and eelgrass habitat
- The interrelatedness of shoreline processes and shoreline protection (also known as “Living Shorelines”)
- Implementation of the San Francisco Bay Trail

1.3 RESTORATION AND PUBLIC ACCESS FEASIBILITY STUDY

In 2010 and 2011 the District prepared a Feasibility Study of restoration and public access improvements at Albany Beach. The goal of the Albany Beach Restoration and Public Access Feasibility Study (Feasibility Study) is to examine the feasibility of implementing improvements identified in the General Plan and to identify other required improvements. The overall objective of the Feasibility Study is to identify and conceptualize habitat restoration and public access improvements at Albany Beach, consistent with the vision of the adopted General Plan to include:

- Restoring and protecting Albany Beach and dune habitats
- Expanding dune areas behind the beach
- Installing compatible public access improvements and other park facilities

- Enhancing water access to San Francisco Bay
- Closing a key gap in the San Francisco Bay Trail

The process for the Feasibility Study includes the following tasks:

1. Document existing and future conditions; prepare background and technical studies
2. Perform a constraints and opportunities analysis
3. Develop concept alternatives
4. Develop an implementation approach (the subject of this document)

The Feasibility Study will help guide project development with the decision-making process and will provide preliminary drawings to use in developing future detailed construction plans. The Feasibility Study will also provide information needed to define a project description, consistent with the requirements of the California Environmental Quality Act (CEQA) and support completion of future documents to comply with other laws or regulations necessary to approve, permit and construct the project.

1.4 PURPOSE OF IMPLEMENTATION APPROACH

Development of an Implementation Approach is the fourth and final step in the Feasibility Study. The purpose of the Implementation Approach is to describe the proposed project that has been identified by the District as the most feasible combination of project concepts introduced earlier in the Feasibility Study, and to identify the permits and mitigation that will be required to implement the proposed project.

The proposed project was developed based on: the goals and objectives of the Eastshore State Park General Plan; the feasibility of identified restoration and public access improvements including technical analyses and literature reviews; public outreach at two Board of Directors Executive Committee meetings and two public workshops; and input from State Parks, State Coastal Conservancy, San Francisco Bay Regional Water Quality Control Board, and the San Francisco Bay Conservation and Development Commission. The District has prioritized improvements to be included in the proposed project based upon the land use designations and policies in the Eastshore State Park General Plan, EBRPD Master Plan policies and Ordinance 38, and waste discharge requirements of Regional Water Quality Control Board Order 98-072.

2.0 PROPOSED PROJECT

2.1 SUMMARY

The proposed project will implement portions of the Eastshore State Park General Plan at Albany Beach. It will enhance and expand the beach, dunes and wetlands, stabilize eroding shorelines and improve public access to San Francisco Bay. Sand will be placed on the beach to help support a broad low-profile beach, support existing and expanded dune features and adapt to anticipated conditions under sea level rise. The dunes and seasonal wetlands will be expanded and planted with native vegetation. South Albany Neck shoreline will be stabilized and enhanced. Several subtidal areas will be enhanced for native oysters. A small parking lot will be constructed to provide new Americans with Disabilities Act (ADA)-compliant and non-motorized water craft access. A vault-type restroom, bicycle racks, picnic facilities, park signage, interpretive exhibits and landscaping will be installed. New trails will be constructed, including a segment that would accommodate the future San Francisco Bay Trail.

Project construction is estimated to cost approximately \$4 million excluding the costs of property acquisition, easements, environmental documentation (i.e., CEQA), permitting, design, and post-construction monitoring and/or long-term maintenance. Approximately 43 percent (\$1,730,000) of the cost will be for beach area improvements and 46 percent (\$2,240,000) for improvements along the south shoreline of Albany Neck. Subtidal improvements are estimated to account for less than 1 percent of the cost (\$30,000) and could be funded and potentially implemented by organizations with subtidal research interests such as the California State Coastal Conservancy and National Oceanic and Atmospheric Administration (NOAA).

The project is depicted graphically in four figures attached to this report (see Appendix A). An overview of improvements to be implemented at Albany Beach and along the south shoreline of Albany Neck is depicted in Figure 1; a detail of improvements to be implemented in the beach area is provided in Figure 2; a perspective drawing of how the beach area improvements are expected to appear after implementation is provided in Figure 3; and a perspective drawing of how shoreline stabilization is expected to appear after implementation is provided in Figure 4. The project improvements are also described below.

2.2 BEACH AREA IMPROVEMENTS

- **Remove Debris and Creosote Timbers:** Inorganic and creosote-treated debris will be removed and disposed. Debris that supports the existing network of interdune seasonal wetlands may be left in place. Grading of dune sand material and revegetation will be conducted to restore disturbed areas.
- **Invasive/Non-native Plant Removal:** Invasive non-native plant species will be removed and disposed. Non-native Myoporum shrubs located east of the eucalyptus grove will be removed to open up views, improve alternate informal beach access and eliminate potential for encampments.

- Beach Enhancement: Clean sand will be imported and placed to support a broad sandy beach and dune features. The timing and volume of sand placed will be based on estimated rates of shoreline movement, desired beach dimensions and actual conditions within the dune and beach zones.
- Dune Expansion: An existing parking lot will be used for dune expansion. Clean sand will be imported and placed to expand the dune zone.
- Enhance and Expand Existing Wetland: Inorganic debris and invasive non-native plant species will be removed from the existing seasonal wetland. The wetland will be expanded by grading wetland features within the expanded dunes. Wetland expansion will be sized to provide sufficient capacity for integrated onsite storm water treatment. The wetlands will be planted with appropriate low-maintenance native wetland species.
- Storm Water Management: Surface runoff from impervious areas will be directed through a system of bioswales prior to entering the wetlands. The bioswales will be vegetated to improve storm water treatment.
- San Francisco Bay Trail Extension (Bay Trail): The project will construct a trail adjacent to the beach to accommodate future extension of the Bay Trail. The trail will conform to East Bay Regional Park District trail standards. Trail design may include features that help adapt the site to future sea level rise, hold sand in place and define the expanded shoreline.
- Eucalyptus Grove: The existing eucalyptus grove behind the beach will be retained. Hazardous trees and limbs will be removed.
- Vegetated Buffer: A low-height, low-maintenance native plant buffer will be installed to define the edge between the dunes/wetlands, Bay Trail and Golden Gate Fields property. The buffer will direct public access, protect sensitive habitats, and limit sand deposition on paved areas.
- Signage: A park entrance sign will be installed at Buchanan Street. Interpretive exhibits will be installed at two locations. Informational signs will be installed near the park entrance and on trails to assist with pedestrian and bicycle circulation, and to display park rules and regulations.
- Improve Northern Beach Access: The northern access point connecting the existing trail system to the beach will be graded and resurfaced to meet ADA standards and to accommodate future installation of a bench overlooking the beach.
- Habitat Protection: Fencing will be installed to protect sensitive habitat associated with the dune/wetland complex and to help define trails. Fencing will be designed to be low-maintenance and not obstruct views of San Francisco Bay. Redundant fencing or barricades onsite will be removed and disposed.
- New Picnic Facility: An area north of the eucalyptus grove will be graded and surfaced for up to five picnic tables. If feasible and safe, the picnic facility will be located near the eucalyptus grove for shade and wind protection. Three tables and trash/recycling receptacles will be installed initially. At least one of the tables will be ADA accessible.
- New Southern Beach Access and Non-Motorized Water Craft Staging: An area will be graded and surfaced for staging non-motorized water craft, installation of a bench and access to the beach. Beach access will meet ADA standards. The staging area will be incorporated into the design of a new parking lot.

- **New Parking Lot:** A new 20-vehicle asphalt and concrete curbed parking lot will be installed east of the beach. Access would be via a new two-way access driveway at the terminus of Buchanan Street. A pipe gate and one-way traffic control/flow plate (i.e., “dragon’s teeth”) would be installed to manage access. The parking lot will be integrated into the site’s storm water management design and accommodate potential future expansion with minimal need for infrastructure relocation. Parking spaces may be designated for the following uses:
 - Five 20-minute restricted spaces for drop-off of non-motorized water craft
 - Five ADA accessible spaces (including one van accessible)
 - Ten unrestricted spaces
- **New Restroom:** A CXT-type double (two toilet stalls) vault toilet facility will be installed near the non-motorized water craft staging area. The facility will be placed to minimize obstruction of views, site circulation or park amenities.
- **Bicycle Racks:** A low maintenance bicycle rack capable of holding at least 10 bicycles will be installed near the parking area and non-motorized water craft staging area.

2.3 SOUTH ALBANY NECK REPAIR AND SHORELINE STABILIZATION

- **Comprehensive Shoreline Stabilization and Enhancement:** The shoreline between Albany Bulb and Beach will be stabilized to prevent erosion, protect water quality and enhance habitat values. Specific constrained (steep and narrow) sections of shoreline will be stabilized through a combination of grading and placement of engineered rock armoring. In less constrained areas (wider), the shoreline will be reconfigured to create a more gently sloped condition where a combination of materials such as coarse cobble, rock and vegetation can be used to protect the shoreline and encourage sand deposition. Shoreline stabilization and enhancement would also include removal and disposal of invasive non-native plants and debris, and removal and reuse of informal artwork, where feasible.
- **Lower South Neck Trail:** The lower south neck trail will be graded and resurfaced to provide all season access and storm water drainage. This work will require coordination with the City of Albany for work outside park boundaries.
- **Slope and Habitat Protection:** A low post and cable fence will be installed between the lower trail and top of the shoreline slope repair to segregate public access areas from shoreline stabilization and habitat enhancement zones. The fence will be designed to not obstruct views.

2.4 SUBTIDAL ENHANCEMENT

- **Native Oyster Habitat:** Rock clusters, groins or other hard structures (e.g., reef balls) will be placed in nearshore subtidal zones below the south shore of the Albany Neck to create substrate for native oyster recruitment and provide refugia for juvenile fish. These structures will be placed in a manner to avoid creation of navigational hazards. These structures are also intended to dissipate wave energy and encourage sand deposition along the Neck shoreline, which would provide potential habitat for eelgrass recruitment or expansion.

2.5 IMPLEMENTATION TASKS AND SCHEDULE

Implementation will begin with securing project funding, a project design and CEQA/public scoping process, followed by permitting, construction and post-construction maintenance. The proposed project is estimated to take approximately 30 to 42 months (2.5 to 3.5 years) to implement through construction. This schedule assumes that funding is available and tasks through the beginning of construction are completed concurrently where appropriate. It also accounts for potential permitting delays.

- **Funding:** Potential funding sources from Cosco Busan Oil Spill, Bay Conservation and Development Commission and State Coastal Conservancy could be leveraged with Measure WW Eastshore Funds to implement the proposed project. Securing funding may take approximately 4 months.
- **Design:** Project design will provide the detail necessary for CEQA analysis, permitting and project construction. This task is estimated to take approximately 9 months to complete.
- **CEQA:** The CEQA process will disclose potential environmental impacts associated with implementing the proposed project. It will also help inform how the project can be modified to avoid or minimize potential impacts. Mitigation measures would be developed for impacts that cannot be reduced to a less than significant level. Preparation of CEQA analysis and documentation will be coordinated with responsible agencies to ensure that information needed for discretionary approvals (permits) is adequately covered. The CEQA process is estimated to take approximately 9 months to complete.
- **Permitting:** Anticipated permit and mitigation requirements are described in section 3.0 of this report. This task is estimated to take approximately 10-18 months to complete.
- **Construction:** Construction of the proposed project may be phased between South Albany Neck and Beach Area improvements depending on the availability of funding and property ownership. The time estimated to simultaneously construct both project areas is approximately 6 months.
- **Maintenance:** Maintenance responsibilities will increase as a result of the new site improvements. These responsibilities would include maintaining the parking area, fencing, picnic areas and vegetation. Replacement of the existing portable toilet with a new vault restroom system will reduce maintenance costs because of a significant reduction in the number of pump/disposal visits that will be needed. Post-construction maintenance associated with the habitat restoration component of the project will primarily involve vegetation management/plant establishment for the first five years. Maintenance effort is anticipated to be significantly reduced following the initial 5 year plant establishment period.

3.0 ANTICIPATED PERMIT AND MITIGATION REQUIREMENTS OF THE PROPOSED PROJECT

The regulatory agencies and entities with jurisdiction over some or all elements of the proposed project are identified below, followed by a discussion of the likely permit and mitigation requirements associated with project implementation. Approximate costs and a timeframe for preparing the permit applications and supporting documents and acquiring permits and authorizations are provided if known. This section does not address California Environmental Quality Act (CEQA) requirements in detail. The appropriate CEQA document for the proposed project is anticipated to be an Initial Study/Mitigated Negative Declaration (IS/MND).

3.1 U.S. ARMY CORPS OF ENGINEERS

3.1.1 Permits

Shoreline stabilization and native oyster habitat enhancement along the south shoreline of Albany Neck will result in minor Bay fill; therefore, under Section 404 of the Clean Water Act, either an Individual Permit or a series of Nationwide Permits from the Corps will be required to implement the project. Placement of reef balls offshore and enhancement (invasive non-native plant removal and seeding/planting) of the existing seasonal wetlands may be covered under a Corps Nationwide Permit 27 – *Aquatic Habitat Restoration, Establishment, and Enhancement Activities*. Revegetation and other enhancements to the existing seasonal wetlands may be non-reporting as long as fill of jurisdictional areas does not result from these activities; however, placement of reef balls or other hard structures in the Bay will require notification to the Corps because it will take place in Essential Fish Habitat (San Francisco Bay).

Shoreline stabilization at the mean tide line is proposed along 1,750 linear feet of the south Neck, which exceeds the threshold of 500 linear feet affected for coverage under Nationwide Permit 13 – *Bank Stabilization*; however, there is a possibility of having this criterion waived by the San Francisco District Engineer. Bay fill associated with shoreline stabilization will consist of rock armoring and placement of cobble and rock groins. The total volume of Bay fill associated with shoreline stabilization proposed along the south Neck is estimated to range from 8,000 to 10,000 cubic yards, or 4.6 to 5.7 cubic yards per linear foot (based on an average depth of 5 feet and an average width of 25 feet over a length of 1,750 linear feet). This volume is below the threshold of 25 cubic yards per linear foot for coverage under Nationwide Permit 18 – *Minor Discharges*; however, this volume exceeds the threshold of one cubic yard per linear foot for coverage under Nationwide Permit 13 – *Bank Stabilization*. Based on the fill calculations estimated above, an Individual Permit may be triggered by the proposed shoreline stabilization on the south shoreline of the Neck if the District Engineer does not waive certain criteria of Nationwide Permits 13 and/or 18.

The process of obtaining authorization under Nationwide permits is anticipated to take approximately 10 to 12 months from preparation of permit applications to the time that permits are obtained. Excluding Park District staff time, the Corps Nationwide permit application process is anticipated to

cost approximately \$15,000. If an Individual Permit is warranted instead of Nationwide permits, the process may take 12 to 18 months, including preparation of a 404(b)(1) Alternatives Analysis and a Public Notice period, at a cost of approximately \$25,000 to \$30,000. These estimates include preparation of permit-level construction plans and a mitigation and monitoring plan that must be submitted with the permit application. There are no fees associated with Corp permit applications.

Regardless of the type of Corps permit applied for, the delineation of waters of the United States in the project area (see Appendix H in *Existing and Future Conditions Report*) must be submitted to the Corps for verification, either before or concurrent with the permit application submittal. Verification of the extent of Corps jurisdiction in the project area will contribute to accurate estimates of the jurisdictional area to be impacted by the project and the quantity of mitigation required as compensation. The mitigation and monitoring plan submitted with the application package will describe the proposed mitigation and post-construction performance criteria.

The Corps will likely initiate Section 7 consultation with the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service (NOAA Fisheries) in accordance with the requirements of the federal Endangered Species Act and Essential Fish Habitat provisions of the Magnuson-Stevens Fishery Conservation and Management Act, and the Fish and Wildlife Conservation Act. These consultations are triggered by activities in tidal waters, such as placement of reef balls in the Bay and bank stabilization measures that extend into the Bay (San Francisco Bay is designated as Essential Fish Habitat). The agencies may consult on the proposed project's potential impacts to federally listed fish species and their habitat and they may impose conditions on the project that require implementation of avoidance and minimization measures (e.g., seasonal work restrictions), biological monitoring during construction and compliance reporting during and/or after construction. These consultations, which have been factored into the Corps permitting timeframes described above, are anticipated to require 6 to 14 months to complete. Costs associated with biological monitoring and aquatic species protection measures during in-water construction have been accounted for in the estimated cost of project implementation.

3.1.2 Mitigation

A goal of the proposed project design is to balance cut and fill within jurisdictional waters. Typically, the Corps requires in-kind mitigation for impacts to jurisdictional waters at a ratio of 2:1 (area mitigated to area filled). However, because the proposed Bay fill will improve shoreline stability, water quality in the Bay, and habitat for native subtidal species, the Corps may accept a 1:1 mitigation ratio. Bay fill will occur where the south shoreline of the Neck is steep and where the width of the Neck (and avoidance of potential hazardous materials exposure) does not allow for laying back the slope to create a more stable and gentle grade. Bay fill will also occur where reef balls are placed for native oyster habitat. This type of fill (estimated to range from 8,000 to 10,000 cubic yards) will be balanced by expanding areas of intertidal or subtidal jurisdictional waters where there is room on the Neck shoreline to lay back the slope to create a broader more stable shoreline, and where large hazardous debris is removed from the shoreline. The costs associated with this self-mitigating aspect of the project are accounted for in the estimated cost of project implementation. The Corps does not typically require post-construction performance monitoring of open water mitigation, but may require some other type of post-construction monitoring such as photopoints.

Another goal of the proposed project design is to avoid impacts to existing eelgrass beds within the project limits. Impacts to the beds would require mitigation because they are designated as Special Aquatic Sites (see section 3.1.2 above). The most recent data on eelgrass distribution in the project area are from a sidescan sonar survey conducted by Merkel & Associates in 2009. Because the size and distribution of eelgrass beds can change from year to year, an estimate of eelgrass distribution and anticipated impacts to eelgrass beds associated with project construction (i.e., shoreline stabilization and/or placement of reef balls or rock groins) should be made during the preparation of permit-level construction plans and/or during design-level planning. This information will guide design development and determine if eelgrass can be avoided or if mitigation will be necessary. Placement of rock groins is intended to encourage sand deposition along the south shoreline of Albany Neck, which would provide potential habitat for eelgrass recruitment or expansion. This type of passive habitat enhancement for eelgrass should be addressed in the permit application package and any discussions with the Corps regarding eelgrass impacts and mitigation.

The proposed project will avoid impacts to the existing interdune seasonal wetlands (the actual extent of Corps jurisdiction in the project area has yet to be verified) and will create additional seasonal wetlands in the expanded dune area. The additional wetland area created will contribute positively to the project's overall mitigation ratio for jurisdictional features. The costs associated with seasonal wetland creation are accounted for in the estimated cost of project implementation. The Corps is likely to require five years of post-construction monitoring and maintenance of the created seasonal wetlands if they are proposed as mitigation areas.

3.2 SAN FRANCISCO BAY REGIONAL WATER QUALITY CONTROL BOARD

3.2.1 Permits

For the Corps permit(s) to be valid, a Section 401 Water Quality Certification from the San Francisco Bay Regional Water Quality Control Board (Regional Board) is required. The Regional Board will likely claim jurisdiction over waters of the State based on the delineation of waters of the U.S verified by the Corps. The Certification application package will include the same permit-level construction plans, wetland delineation, Alternatives Analysis (if required), and mitigation and monitoring plan submitted with the Corps permit application. In addition, the Certification package must include all CEQA documentation related to the project. The timeframe of the Certification process is tied to the Corps permit application process (see above); however, it is anticipated to take approximately 6 to 12 months from preparation of the permit application to the time that Certification is obtained. Excluding District staff time, the cost of the Certification process is estimated to cost \$6,000, including data entry into the Wetland Tracker system after Certification is obtained. In addition, the Regional Board requires payment of a Dredge and Fill Operation fee for the Certification to be valid. If the Regional Board determines that the proposed project qualifies as a "Restoration Project," a \$640 flat fee is required. Otherwise, the project fee will consist of a \$640 base fee + approximately \$21.50 (or 1.00 acres of discharge x \$21.50).

The Certification will impose conditions on the project to protect water quality and track mitigation. These conditions are likely to require implementation of sediment control measures during in-water work, such as deployment of debris catchment structures to contain materials during land-based excavation and/or deployment of silt curtains in the Bay to contain turbidity during in-water work. The conditions may also require surface water sampling to measure turbidity and total settleable

solids in the Bay during in-water work. Costs associated with sediment control measures and water quality monitoring during in-water construction have been accounted for in the estimated cost of project implementation.

3.2.2 Compliance with Existing Orders

A goal of the proposed project design is to comply with Waste Discharge Requirement Order 98-072 issued by the Regional Board. To achieve compliance, implementation of the landfill shoreline stabilization and trail enhancement on Albany Neck must not result in: 1) landfill waste coming into contact with ponded water from any source; 2) deposition of further waste deposited or stored at the site; or 3) leachate from landfill waste and ponded water containing leachate or in contact with solid wastes from the landfill being discharged to waters of the State or United States. The application for 401 Water Quality Certification should reference this Order and address the fact that the proposed project includes design components that are intended to improve compliance with the Order (e.g., erosion repair, shoreline stabilization and storm water management).

Balancing cut and fill (see section 3.1.3 above) at the Bay's edge along the south shoreline of the Neck must consider the risk of excavating landfill debris or potentially hazardous materials. During the CEQA documentation process, the District or its contractor will need to determine where and how much material will be excavated from the Neck during shoreline stabilization and trail enhancement. The Regional Board may or may not authorize disposal and capping of excavated materials on site and may require soil testing in previously untested areas to be excavated.

If any hazardous substance is released by project activities in or on any waters of the State, or discharged or deposited where it is or probably will be discharged in waters of the State, the discharger must report the release to the Regional Board. This reporting requirement is in addition to reporting requirements of the Office of Emergency Services pursuant to the California Health and Safety Code.

3.2.3 Mitigation

Mitigation for impacts to waters of the State is likely to be fulfilled, at the discretion of the Regional Board, by the mitigation proposed as compensation for impacts to water of the U.S. The Regional Board may impose additional or different monitoring, performance and maintenance requirements on the project, but the post-construction monitoring period is likely to be the same (i.e., five years for seasonal wetlands).

3.3 CALIFORNIA DEPARTMENT OF FISH AND GAME

3.3.1 Permits

Section 2080 of the Fish and Game Code prohibits "take" of any species that the California Fish and Game Commission determines to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." The proposed project includes activities in tidal waters; therefore, a 2081 Incidental Take Permit for State-listed fish species not addressed by the federal permits, such as

the longfin smelt (*Spirinchus thaleichthys*), may be required from the California Department of Fish and Game (CDFG) to authorize the in-water work. In addition to the permit-level plans, this application package must include substantial detail regarding the life cycle of the Covered Species and potential impacts to the Covered Species by the proposed project. The applicant must prove that issuance of the permit will not jeopardize the continued existence of the State-listed species. Excluding District staff time, the Incidental Take Permit application process is estimated to cost \$7,000. This process is likely to require 4 to 8 months to complete.

3.3.2 Mitigation

CDFG is likely to impose conditions on the project requiring implementation of measures to avoid and minimize take of the Covered Species (e.g., seasonal work restrictions, biological monitoring during construction and compliance reporting during and/or after construction). CDFG may also impose habitat mitigation requirements on the project. No additional mitigation for Covered Species habitat is likely to be required if CDFG approves of the 1:1 mitigation ratio for impacts to tidal waters that would result from the balanced cut and fill in the Bay along the south Neck shoreline,. However, if CDFG does not concur with mitigation measures approved by the federal agencies, additional mitigation may be required.

3.4 SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION

The San Francisco Bay Conservation and Development Commission (BCDC) has regulatory responsibility over development in San Francisco Bay and along the Bay's shoreline. BCDC jurisdiction in Eastshore State Park includes Bay waters up to the shoreline, as well as the land area between the shoreline and a line 100 feet upland and parallel to the shoreline. "Development" within BCDC jurisdiction includes shoreline stabilization and improvements to habitats and public access; therefore, a permit from BCDC will be required to implement the proposed project.

Because the proposed project involves shoreline stabilization that is more extensive than a minor repair or improvement in BCDC jurisdiction, the District will likely need to apply for a Major Permit, which requires a public hearing. The application may also be reviewed at hearings held by the engineers and designers who advise BCDC. The same permit-level construction plans and mitigation and monitoring plans prepared for the Corps application may be used for the BCDC permit application; however, BCDC may require additional detail. The estimated cost of constructing the proposed project is greater than \$600,000 and less than \$10 million; therefore, the BCDC application fee for a Major Permit will cost 0.20% of the total project cost (i.e., $0.002 \times$ total construction cost) or approximately \$10,000. Excluding this fee and District staff time, this permit application process is estimated to cost \$25,000. The BCDC permit process is likely to require 6 to 12 months to complete.

3.5 CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

State Parks certified the Eastshore State Park Environmental Impact Report (EIR) which programmatically addressed public access and restoration at Albany Beach. The improvements included in the proposed project are consistent with the Eastshore State Park certified EIR. As the

Lead Agency for implementing the project under CEQA, the District would prepare an Initial Study to analyze potential environmental impacts and to determine the form of the environmental document that would be required for the project. Although an Initial Study has not yet been prepared, based on the information currently available for the proposed project and project consistency with the Eastshore State Park General Plan EIR, the appropriate CEQA document would likely be a Mitigated Negative Declaration (MND). An MND would provide needed information to responsible agencies under CEQA and would provide needed documentation for discretionary approvals (permits). Implementation of the proposed project will not likely create significant unavoidable environmental impacts; all potential environmental impacts can be avoided or minimized by project design or otherwise mitigated for. The IS/MND will provide full disclosure, evaluation and mitigation for the potential impacts related to implementing the proposed project.

4.0 IMPROVEMENTS ANALYZED AND NOT INCLUDED IN THE PROPOSED PROJECT

In conjunction with the Opportunities and Constraints Analysis and the Concept Alternatives prepared by the Consultant Team as well as public input received in the earlier phases of the Feasibility Study, several factors were considered by the District in developing and scoping a project description. These factors included:

- 1) Protection of public health and safety;
- 2) Avoidance of potentially significant environmental impacts;
- 3) Potentially substantial mitigation requirements;
- 4) Lengthy approval time and uncertainty of regulatory permits;
- 5) Constraints imposed by property boundaries;
- 6) Accessibility of the project area;
- 7) Greater cost/benefit value;
- 8) Low risk of failure; and
- 9) Reduced long-term maintenance and repair costs.

Given the factors listed above, the following discussion summarizes the rationale for including or excluding improvements considered by the Feasibility Study.

4.1 SOUTH SHORELINE OF ALBANY NECK

Limited/Select Shoreline Stabilization: Concept Alternatives A and B included repair and protection for segments of the shoreline that are currently eroding. The proposed project would include comprehensive shoreline stabilization and enhancement as described under Alternative C. Partial repair of the shoreline does not address long term stability of the shoreline or reduce operational costs for the following reasons:

- The proposed project places a high priority on maintaining the landfill cap and avoiding water quality impacts to San Francisco Bay. Without comprehensive shoreline stabilization, future shoreline failure could cause erosion of landfill material into San Francisco Bay and violate the waste discharge requirements of Regional Water Quality Control Board Order 98-072.
- Partial or patchy repair of eroded areas would contribute to shoreline weakness where repaired areas transition to non-engineered fill. These transitional points of contact over time will likely fail, causing erosion to spread to other areas. Failed areas would require continual maintenance and shoreline stabilization.

- Within areas of shoreline fill that were not properly engineered (i.e., existing condition) anticipated sea level rise will cause new areas of erosion and shoreline failure.
- Construction cost and permitting burden is expected to increase with time. A one-time comprehensive repair will be expensive but in the long term is more cost effective because patch repairs and substantial long-term maintenance burdens will be avoided.

Create Pocket Beach: Alternative C included creation of a small beach by importing and placing sand offshore near the “pocket” where the south shoreline of the Neck joins the Bulb. The proposed project does not include this improvement because it emphasizes a low priority on project elements that require Bay fill and are not essential for stabilizing the shoreline. The relative cost of this improvement is high (\$100,000) and its role in the shoreline stabilization is not critical. Avoidance of non-essential Bay fill will help support timely approval of permits and reduce mitigation requirements.

Create New Water Access Ramp: Alternative C included construction of a ramp for access to the water from the existing trail along south Albany Neck as depicted on General Plan figure III-8. This improvement would be located more than 1,900 feet from the parking area and would require substantial engineering of the shoreline slope at an estimated construction cost of more than \$100,000. This improvement was not considered further due to the high cost and long distance from existing and proposed parking/water craft staging.

The proposed project will construct a new water access point at the south end of Albany Beach in lieu of the ramp considered along the south shore of the Neck. The proposed location for new water access was not identified in the General Plan because it was not part of the State Park when the Plan was prepared. This new water access point and staging area will be located within 200 feet of San Francisco Bay (as compared to 1,900 feet). It will provide considerably improved access for non-motorized water craft and mobility-impaired park users. It will also keep most access improvements consolidated into a small developed area (including restrooms, benches and future Bay Trail) near visitor parking.

4.2 ALBANY BEACH AND VICINITY

Create Path through Dunes with Boardwalk and Fencing: Alternative C included construction of a boardwalk trail through the dunes toward the beach. The proposed project does not include a boardwalk through the dunes because it emphasizes a high priority on avoiding habitat fragmentation. A boardwalk trail would bisect the dunes and reduce the overall “patch” size of dune habitat. This would degrade the habitat value of the restored dunes for native plants and animals. Long-term maintenance and replacement of a boardwalk would also be required at substantial cost and damage to adjacent restored habitats.

Water and Sewer Extension: The Feasibility Study concluded that extending water and sewer to the Albany Beach area is constrained. The proposed project does not include installation of water or sewer service due to high construction costs, lack of easements or agreements to connect electrical power from Golden Gate Fields (nearest power supply) to power a sewer lift station, and lack of additional operating budget to monitor and maintain a sewer lift station. Furthermore, flush toilets, showers and drinking fountains at the beach will not generate enough water demand on the system to

prevent stagnation and maintain water quality in the main; therefore, approval of a water line extension is not likely to be granted by East Bay Municipal Utility District.

4.3 SHORELINE SOUTH TO FLEMING POINT (SOUTH OF BEACH)

The Feasibility Study identified opportunities for improvements along the shoreline south of Albany Beach abutting Golden Gate Fields. These improvements are not included in the proposed project. These improvements would be more effectively addressed by a separate effort to close a gap in the San Francisco Bay Trail between Buchanan Street and Gilman Street. Additional factors for not extending proposed project improvements south of Albany Beach include: substantial costs, permitting efforts, high potential for unearthing hazardous materials, potential cultural/historic resource impacts, and property ownership constraints on construction staging.

Vegetated Buffer between Shoreline and Adjacent Private Property: Alternatives A, B and C included installation of a low-height, low-maintenance vegetated buffer (using native plant species) that defines the edge between the future Bay Trail and adjacent Golden Gate Fields property. This improvement is not included in the proposed project. It could be evaluated and considered when designing the future Bay Trail extension.

Close Gap in Bay Trail: Alternatives B and C included construction of an extension of the Bay Trail from the Buchanan Street turnaround south to Gilman Street along the landward edge of the shoreline. The proposed project will construct a trail adjacent Albany Beach to accommodate future extension of the Bay Trail but does not include trail construction south of the beach.

Shoreline Stabilization (South of Beach): Alternative B included shoreline stabilization at priority locations and Alternative C included comprehensive shoreline protection at an estimated cost ranging from \$250,000 to \$700,000. The proposed project does not include shoreline protection south of Albany Beach due to the high cost and lower risk of erosion or shoreline failure (when compared to actively eroding areas on the south side of Albany Neck). Shoreline stabilization and trail flooding can be addressed with the design and construction of the Bay Trail extension.

Remove Creosote Timbers from Remnant Piers: Alternative C included removal of creosote timbers from remnant piers by pulling them completely out of the substrate or by cutting them at ground level at an estimated cost of \$200,000. The proposed project emphasizes a higher priority on removal of creosote timbers that have washed ashore at Albany Beach and adjacent areas. Work at Fleming Point is highly constrained due to potential sensitive cultural resources, potential hazardous materials discovery and disposal costs, and water quality issues associated with disturbance of Bay mud. Alteration of Fleming Point pier would also trigger additional permitting requirements for work in the Bay and could require preparation of an Environmental Impact Report due to the potential issues described above.

Expand Rocky Intertidal Zone: Alternative C included expansion of the rocky intertidal zone near Fleming Point pier by excavating Bay fill at an estimated cost of \$25,000. The proposed project does not include this improvement due to its potential to impact cultural resources near Fleming Point pier, potential hazardous materials discovery and disposal costs, and mitigation requirements.

Interpret History of Fleming Point: Alternative C includes installation of signage at appropriate locations along the proposed Bay Trail extension to interpret the geologic and cultural history of Fleming Point and piers. The proposed project does not include interpretive signage south of Albany Beach. Interpretive signage for this area could be considered with design of the Bay Trail extension.

4.4 SAN FRANCISCO BAY

Place Sand Offshore to Enhance/Expand Eelgrass Habitat: Alternative C included placement of sand shoals offshore to 1) expand eelgrass beds, 2) contribute to shoreline stabilization through wave energy attenuation, and 3) passively nourish the beach and dunes over time at an estimated cost of \$780,000. Data acquired during the Feasibility Study show that eelgrass beds near the beach are more extensive now than when the General Plan was adopted. This reduces the need for actions related to eelgrass expansion in the Albany Beach area. Accordingly, the proposed project does not include offshore sand placement. The proposed project emphasizes a low priority on improvements that require Bay fill and are not immediately essential for stabilizing the shoreline. Avoidance of non-essential Bay fill will help support timely approval of permits and avoid potentially significant environmental impacts.

APPENDIX A

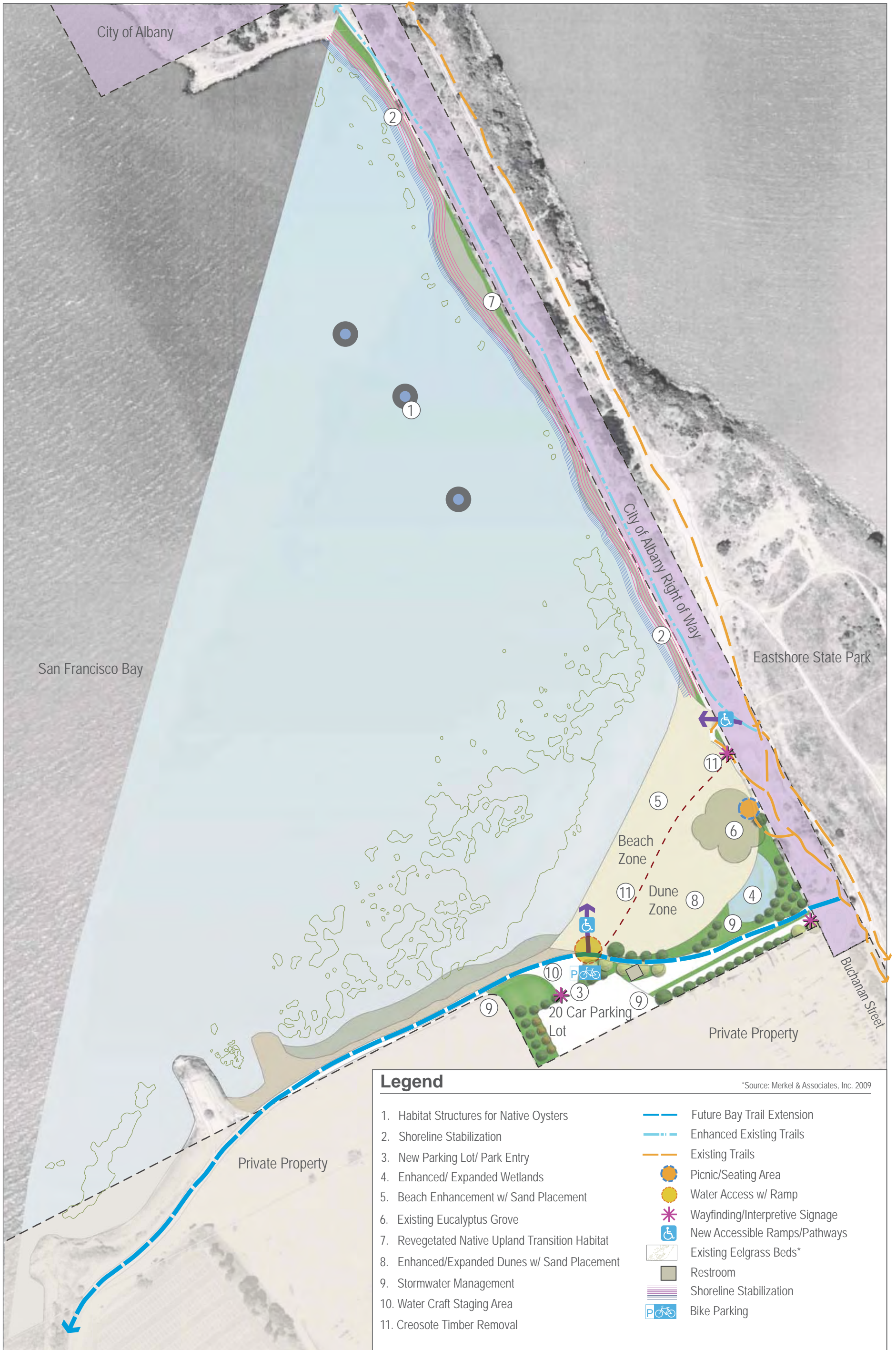
FIGURES

Figure 1. Proposed Project Overview

Figure 2. Proposed Project Beach Detail

Figure 3. Beach Area Improvements

Figure 4. Shoreline Stabilization



Legend

*Source: Merkel & Associates, Inc. 2009

- | | |
|---|-----------------------------------|
| 1. Habitat Structures for Native Oysters | —●— Future Bay Trail Extension |
| 2. Shoreline Stabilization | —●— Enhanced Existing Trails |
| 3. New Parking Lot/ Park Entry | —●— Existing Trails |
| 4. Enhanced/ Expanded Wetlands | ● Picnic/Seating Area |
| 5. Beach Enhancement w/ Sand Placement | ● Water Access w/ Ramp |
| 6. Existing Eucalyptus Grove | ✱ Wayfinding/Interpretive Signage |
| 7. Revegetated Native Upland Transition Habitat | ♿ New Accessible Ramps/Pathways |
| 8. Enhanced/Expanded Dunes w/ Sand Placement | Existing Eelgrass Beds* |
| 9. Stormwater Management | Restroom |
| 10. Water Craft Staging Area | Shoreline Stabilization |
| 11. Creosote Timber Removal | ♿ Bike Parking |



Legend

- | | | |
|-----------------------------------|--|---------------------------------|
| 1. 20 Car Parking Lot/ Park Entry | 7. Creosote Timber Removal | Existing Trails |
| 2. Water Access w/ Ramp | 8. Existing Eucalyptus Grove | Picnic/Seating Area |
| 3. Stormwater Management | 9. Beach Enhancement w/ Sand Placement | Wayfinding/Interpretive Signage |
| 4. Restroom | 10. Expanded Dunes w/ Sand Placement | New Accessible Ramps/Pathways |
| 5. Future Bay Trail Extension | 11. Water Craft Staging Area | Bike Parking |
| 6. Enhanced/Expanded Wetlands | | |



Beach Enhancement w/ Sand Placement

Enhanced/Expanded Dunes and Wetlands w/ Sand Placement

Future Bay Trail

Parking Lot and Staging Area



Existing
Vegetation

Regraded Trail
and Bioswale

Upland
Transitional
Habitat

Engineered
Rock

Subtidal Habitat Structures and Eelgrass