

Bay Trail Extension To The Berkeley Marina

DESIGN PLAN AND FINAL INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

City of Berkeley

Department of Parks, Recreation and Waterfront

In association with:

Association of Bay Area Governments - Bay Trail Project

California Coastal Conservancy

November 2003

Prepared by:

2M Associates

Amphion Environmental, Inc.

EndresWare, Architects Engineers

LSA Associates, Inc.

MHA Environmental Consulting, Inc.

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PREFACE

Report Organization

This report is organized as an integrated Design Development Plan, Mitigated Negative Declaration, and Initial Study prepared pursuant to the guidelines of the California Environmental Quality Act (CEQA). Report sections include:

- **Chapter 1 Introduction:** provides a summary of the purpose and goals of the Bay Trail Extension to the Berkeley Marina.
- **Chapter 2 Proposed Trail Alignment and Design:** describes and illustrates the alignment of the Bay Trail Extension to the Berkeley Marina from the existing bicycle and pedestrian overcrossing of Interstate 80 to the Marina Entrance Vista Point west of the Berkeley Yacht Club. This chapter serves as the Project Description for environmental review purposes.
- **Chapter 3 Mitigated Negative Declaration:** contains a summary of potential impacts that may result from implementing the Draft Design Development Plan and identifies mitigation measures necessary to make the determination that the project will not have a significant effect on the environment.
- **Chapter 4 Initial Study:** provides, by resource subject, an environmental checklist, a discussion of potential impacts, and a discussion of mitigation measures.
- **Chapter 5 Response to Comments:** provides responses to all comments solicited on the Draft Initial Study during environmental review.

Environmental Review

The Proposed Trail Alignment and Design (Chapter 2), Mitigated Negative Declaration (Chapter 3), and Initial Study (Chapter 4) are the focus of a formal CEQA process of public review and comment. This Final Bay Trail Extension to the Berkeley Marina Design Plan and Initial Study, including public comments and responses to them (Chapter 5), and recommendations by the City's Commission will be presented to the Berkeley City Council for their consideration prior to adopting the Mitigated Negative Declaration and adopting the Design Plan.

1: INTRODUCTION

Project Purpose

The purpose of the Bay Trail Extension Project to the Berkeley Marina (Bay Trail Extension) is to facilitate and enhance pedestrian and bicycle access to the Berkeley Marina from the existing I-80 pedestrian and bicycle overcrossing of Interstate 80 (I-80) and the Bay Trail. The Bay Trail Extension will provide access to the southern and western edges of the Berkeley Marina to the Berkeley Yacht Club. Figure 1 illustrates the overall alignment of the Trail.

1.1 Thematic Vision

Vision Statement. The vision embodied for the Trail is to link the City of Berkeley with a variety of outdoor recreational experiences that occur at the waterfront and make accessible the experience of the open space and timelessness of the San Francisco Bay.

The Trail is also envisioned to serve three distinct, but interrelated, themes. These are:

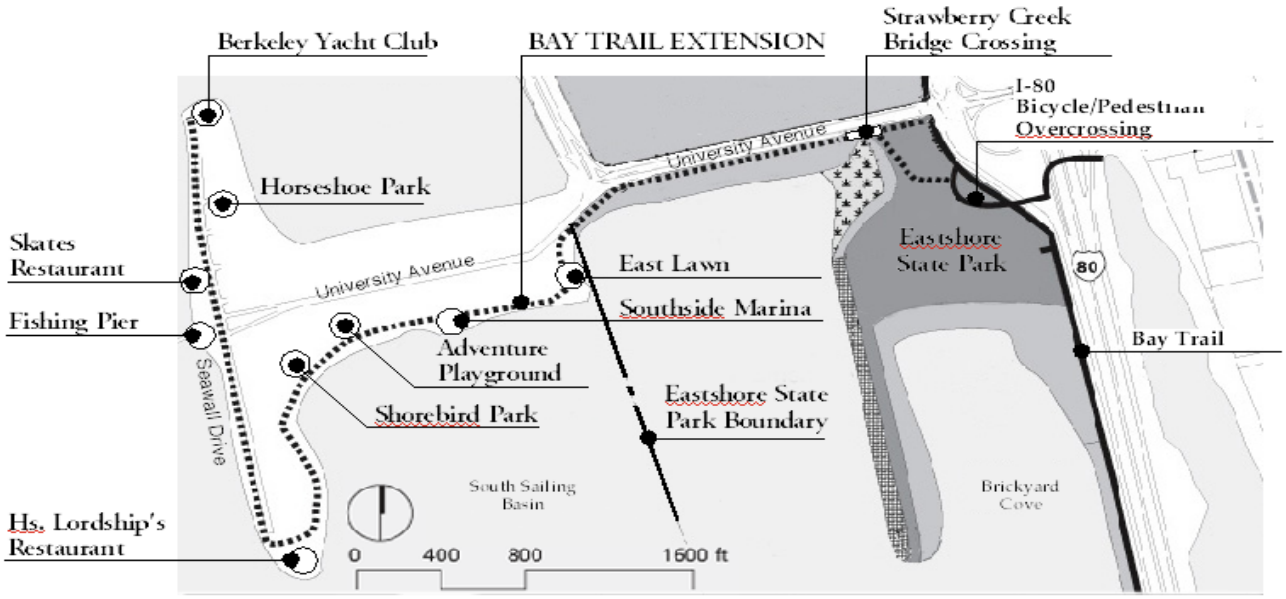
- **Identity:** To tie together and unify the variety of marina views and land uses as a continuous linear experience.
- **Stewardship/Education:** To provide the opportunity for visitors to learn about the Marina's shoreline, its wildlife and flora, its cultural role in the area's history, and how to actively steward the landscape to enhance water quality, vegetation, and habitat conditions.
- **Recreation:** To accommodate active and passive outdoor recreational pursuits by creating a place to hike, run, bike, stroll, skate, watch birds, relax, and sit to observe a myriad of other activities that occur on the Bay and along it's the Marina shoreline.

1.2 Goals

The following seven goals are broad, general statements pertaining to the Bay Trail Extension project. They are consistent with the Guiding Principles and Policies in the Berkeley Marina Master Plan and in the Eastshore State Park General Plan.

- **Goal #1 Opportunity.** The Bay Trail Extension should provide access to waterfront recreational and educational opportunities for all residents of the City of Berkeley and visitors.

Figure 1: Bay Trail Extension Route Alignment



SOURCE: 2M Associates 2002

- **Goal #2 Timelessness.** The Bay Trail Extension should direct attention to the San Francisco Bay and the qualities of timelessness that a tidal environment imparts.
- **Goal #3 Image.** The Bay Trail Extension should develop and improve focal points along its route and portray a distinctive image that showcases the Marina.
- **Goal #4 Ecology.** The Bay Trail Extension should be developed and managed in a way that enhances water quality, plant and animal habitat conditions, and open space and natural resource values while promoting water and energy conservation and minimizing environmental impacts.
- **Goal #5 Access.** The Bay Trail Extension should be implemented in a phased manner such that Berkeley residents are encouraged to use it as an alternative to automobile travel as a means of accessing the Marina shoreline. The trail should provide opportunities for non-automotive circulation within the Marina area. In particular, the trail should be integrated early into the planning of transportation needs of any new development to reduce the dependence on automobiles.
- **Goal #6 Quality.** Improvements to the Bay Trail Extension should be designed and constructed for: structural integrity, function, and safety; cost effectiveness; and efficiency in long-term maintenance and operations.
- **Goal #7 Safety.** Development and management of the Bay Trail Extension should provide safe public use opportunities and should not preclude emergency access and maintenance access to nearby facilities.

1.3 Relationship to Other Potential Projects

There are a number of potential projects identified in the Berkeley Marina Master Plan or in the Eastshore State Park General Plan that may, in time, occur along the Bay Trail Extension route.

The Bay Trail Extension is defined herein to be a stand-alone project that, while recognizing and accommodating these other potential shoreline or public access enhancements, is not dependent upon them. These include, but are not limited to:

- Western Touchdown Plaza along the I-80 Bicycle/Pedestrian overcrossing ramp. Western Touchdown Plaza is sponsored by the City of Berkeley.
- Shoreline enhancements within the Eastshore State Park include but are not limited to: regraded and recontoured shorelines, constructed wetlands, and non-paved Park trails with benches/seating areas and picnic facilities along the bluff from Strawberry Creek to Marina Boulevard overlooking the South Sailing Basin.
- Creation of a gateway feature for the State Park and the Berkeley Marina located at the University Avenue/Frontage Road intersection.
- Improvements to the bulkhead or other boat facilities at the South Sailing Basin area in the Berkeley Marina.
- Improvements to the Adventure Playground.
- Improvements to the Berkeley Fishing Pier.

1.4 Jurisdictional Setting

Jurisdiction and ownership. The Bay Trail Extension alignment is entirely within the City of Berkeley. Land ownership is divided between the City of Berkeley and the State of California (see Figure 1).

Existing Policy Documents. Policy documents that direct the planning and govern specific site development along the Bay Trail Extension alignment are:

- City of Berkeley Parks Recreation & Waterfront Department *Marina Master Plan. October 21, 2002.* Adopted July 8, 2003
- California Department of Parks and Recreation – *Eastshore Park Project General Plan and Environmental Impact Report*. Adopted December 2002.
- City of Berkeley – 2002 City of Berkeley General Plan

In addition, the following general plans are applicable to the Bay Trail Extension and the public access to the San Francisco Bay that it will afford:

- San Francisco Bay Conservation and Development Commission. *The San Francisco Bay Plan (as amended).* October 2002.
- Association of Bay Area Governments. *The Bay Trail Plan*. July 1989.

1.4.1 MARINA MASTER PLAN

Environmental Initial Study – Berkeley Marina Master Plan. The Initial Study for the Marina Master Plan outlines a number of mitigation measures for improvements within the Marina applicable to the Bay Trail Extension. These mitigation measures are incorporated into the Bay Trail Extension project description by reference.

Biological Resources

- Tree removal should be avoided between February 15 and June 30; if not feasible, any affected trees shall be inspected in advance by a qualified ornithologist to determine if nests of raptors, sensitive songbirds or other protected species are present. If viable nests are present, exclusion zones shall be created around the active nests and tree removal shall be delayed until completion of nesting activity or the nests shall be relocated following applicable California Department of Fish and Game or the U.S. Fish and Wildlife Service protocols.

- Prior to disturbance of shoreline areas, including rip-rapped embankments or any upland area occupied by ground squirrels, a pre-construction survey for burrowing owls shall be conducted by a qualified ornithologist. If any occupied burrows are identified during the breeding season, buffer areas shall be established around the burrow and protected until the nesting activities are completed. During the non-breeding season, if such burrows cannot be protected, the burrowing owls shall be relocated, subject to prior approval by the California Department of Fish and Game.

1.4.2 EASTSHORE STATE PARK GENERAL PLAN AND ENVIRONMENTAL IMPACT REPORT

Eastshore State Park. Approximately 0.5 miles of the Bay Trail Extension is located within the Eastshore State Park. The Eastshore State Park is a partnership between the East Bay Regional Park District and the State of California Department of Parks and Recreation. The Eastshore State Park General Plan and Environmental Impact Report were adopted and certified by the State Park and Recreation Commission on December 6, 2002. The General Plan was developed to guide future use and enhancement of the Eastshore State Park.

Classification. The Eastshore State Park is classified as State Seashore.

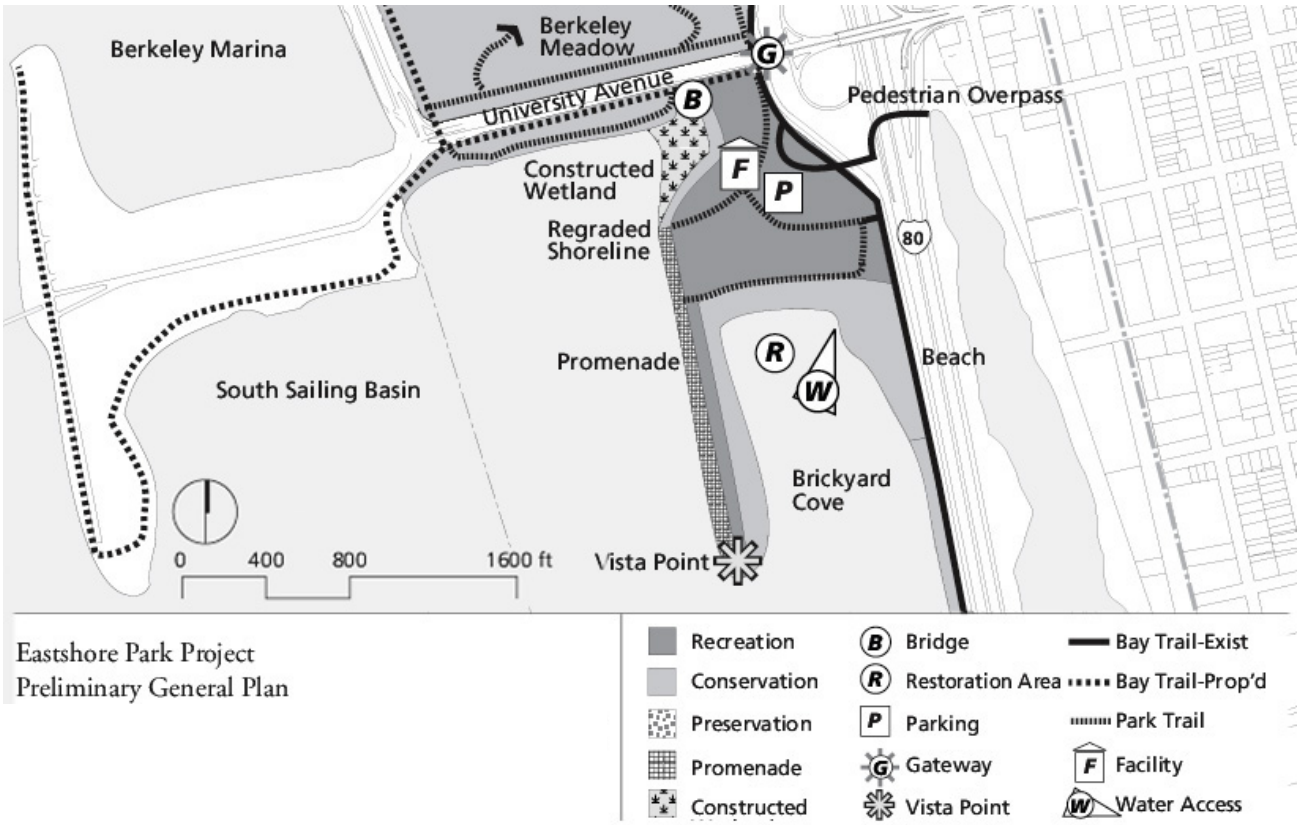
Management Zone Designations. As shown on Figure 2 the Eastshore State Park General Plan identifies a series of Management Zone Designations to help define appropriate levels of public access, recreation use, and facility development. The Bay Trail Extension will pass through two Management Zone Designations.

The eastern-most portion of the Bay Trail Extension, from the existing I-80 bicycle/pedestrian overcrossing to Strawberry Creek, is located within the Brickyard upland area of the State Park. The Brickyard upland is designated as a Recreation Area. A Recreation Area accommodates more intensive recreation because the areas are characterized as having limited habitat value and are of sufficient size to accommodate parking, utilities and the infrastructure necessary to support recreation use.

The University Avenue Shoreline from Strawberry Creek to the western boundary of the State Park is a designated Conservation Area. Conservation areas are areas whose natural habitat values will be protected and enhanced while accommodating lower intensity recreation compatible with and dependent on those values.

Management Goals and Guidelines/Mitigation Measures. Many of the Goals and Guidelines contained within the Eastshore State Park General Plan apply to the alignment and design of the Bay Trail Extension where it passes through the State Park. Likewise, many of the guidelines are cited in the Eastshore State Park General Plan Environmental Impact Report as mitigation to avoid potentially significant impacts created by site-specific projects. Where applicable, these guidelines and mitigation measures are incorporated into the Bay Trail Extension project description by reference.

Figure 2: Eastshore State Park General Plan



SOURCE: Wallace Roberts & Todd, LLC. July 15, 2002 *Eastshore Park Project Preliminary General Plan.*

1.5 Regulatory Framework

Permitting Agencies. The agencies from which permits may be required to implement the Bay Trail Extension are listed in Table 1.

Table 1: Permitting and Review Agencies

LEAD AGENCY	
City of Berkeley	The City regulates land use changes within the Berkeley Marina and requires an Environmental Assessment and Building / Site Development Permit.
RESPONSIBLE AGENCIES	**PERMIT AUTHORITY**
U.S. Army Corps of Engineers (COE)	Regulatory authority over all jurisdictional wetlands, navigable waters, and other Waters of the United States under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act.
U.S. Environmental Protection Agency (EPA)	Dual regulatory authority of Section 404 with the COE.
United States Coast Guard	Consultation and review of the Strawberry Creek Bridge under Title 33 Code of Federal Regulations, Park 115.70
San Francisco Bay Regional Water Quality Control Board (RWQCB)	Authority to regulate projects that could affect water quality through Section 401(A)(1) of the Clean Water Act: Water Quality Certification and a National Pollutant Discharge Elimination System (NPDES) permit for storm water discharge.
U.S. Environmental Protection Agency (EPA)	Oversight of Section 404 Program.
California Department of Fish and Game (CDF&G)	If stream alternations are anticipated, a 1601 permit must be secured from the Department.
California Department of Toxic Substances Control (DTSC)	Approval and oversight of hazardous material remediation if required.
San Francisco Bay Conservation and Development Commission (BCDC)	Regulates development, as authorized under the McAteer-Petris Act, generally within 100 feet from the edge of the Bay. Projects must be accepted by the BCDC Design Review Board and a BCDC permit must be obtained
California Department of Parks and Recreation	For those portions of the Bay Trail Extension that are within the Eastshore State Park, agreements must be formalized to allow the City of Berkeley to make improvements on State lands.
East Bay Regional Park District (EBRPD)	As a partner with the State Department of Parks and Recreation, will review and comment on development within the Eastshore State Park.
East Bay Municipal Utility District (EBMUD)	Approval of water line, water hookups and review of water needs.
California Department of Transportation (Caltrans)	Approval of plans and encroachment permits for projects within the State right-of-way.

Table 1: Permitting and Review Agencies *(continued)*

TRUSTEE AGENCIES	
California Department of Fish & Game (CDFG)	Address state Endangered Species Act requirements and protection measures for other special-status species.
US Fish and Wildlife Service (USFWS)	Consultation is required as part of the Section 404 permitting process to include a biological opinion and incidental take permits, if required, for species listed as Threatened and Endangered under the federal Endangered Species Act.
National Marine Fisheries Service (NMFS)	Consultation is required as part of the Section 404 permitting process to address protection measures for anadromous fish, marine fish, and marine mammals, including Endangered Species Act requirements for federally-listed species.
State Lands Commission (SLC)	Approvals for facilities or activities in sovereign and public trust lands including coastal tidelands per requirements of the Public Trust Doctrine.

2: PROPOSED TRAIL ALIGNMENT AND DESIGN PLAN

2.1 General Alignment

Figure 1 illustrates the Bay Trail Extension route and the key features along it. The Bay Trail Extension extends from the existing ramp leading from the I-80 bicycle/pedestrian overcrossing to the Berkeley Marina entrance adjacent to the Berkeley Yacht Club. In order to cross the outlet of Strawberry Creek, a bridge will be constructed. To facilitate access for users of the Bay Trail coming from the north, a feeder trail will be developed parallel to University Avenue and linking with the Bay Trail Extension just east of the Strawberry Creek Bridge.

TRAIL SEGMENTS AND PHASING.

The Bay Trail Extension alignment is approximately 1.3 miles long. From funding and implementation perspectives the alignment is divided into 5 logical segments. These are presented in Table 2.

Initial trail development will consist of the eastern-most segment leading from the existing I-80 bicycle / pedestrian overcrossing to the southwest corner of the East Lawn of the Marina. This segment will encompass all portions of the Bay Trail Extension located within the Eastshore State Park.

Priorities to implement additional segments will be based on available funding and opportunities to coordinate the Bay Trail Extension with adjacent projects as called for in the Marina Master Plan.

Table 2: Trail Segments

SEGMENT		APPROXIMATE LENGTH (FEET / MILES)
Segment #1:		2,740 / 0.5
From: Ramp of I-80 Overcrossing (interim alignment) From: Bay Trail at University Avenue	To: Southwest corner of East Lawn To: Bay Trail Extension east of Strawberry Creek Bridge	
Segment #2:		1,825 / 0.35
From: Southwest corner of East Lawn	To: West side of Shorebird Park	
Segment #3:		1,804 / 0.35
From: West side of Shorebird Park	To: Hs. Lordships (south) Fishing Pier Plaza (north)	
Segment #4: Fishing Pier Plaza		200 / 0.04
Segment #5:		1,030 / 0.2
From: Fishing Pier Plaza	To: Marina Entrance Vista Point	
Total		**7,634 / 1.3**

2.2 Specific Trail Alignment and Design Program

2.2.1 INTRODUCTION

Figure 3 is a key to a more detailed set of plans and sections identifying the alignment of the Bay Trail Extension and related program activities. Table 3 identifies how the detailed plans are related to individual implementation segments. A description of the Bay Trail Extension route and related program features, by segment, follows. Appendix A includes the alignment plans, sections, and sketches from the Design Plan.

Basic Trail Characteristics. Except as noted below, the Bay Trail Extension will, at a minimum, consist of a 12-foot-wide multi-use trail that includes 2-foot-wide graded shoulders free of hazardous obstructions. In many areas, the 2-foot-wide clear space will be turf or native herbaceous vegetation.

Figure 3: Drawing Key

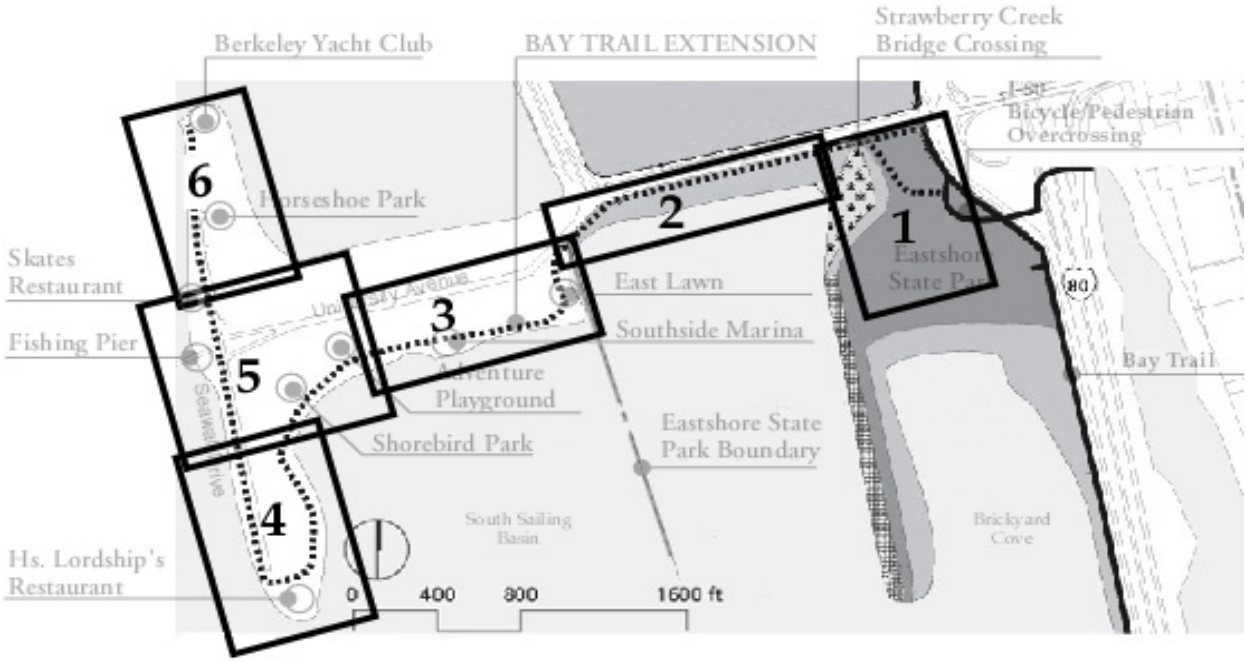


Table 3: Alignment Drawings and Trail Segments

SEGMENT		DRAWING KEY
Segment #1:		Drawings #1, #2, #3
From: Ramp of I-80 Overcrossing	*To*: Southwest corner of East Lawn	
AND		
From: Bay Trail at University Avenue	*To*: Bay Trail Extension east of Strawberry Creek Bridge	
Segment #2:		Drawings #3, #5, #4
From: Southwest corner of East Lawn	*To*: West side of Shorebird Park	
Segment #3:		Drawing #4, #5
From: West side of Shorebird Park	*To*: Fishing Pier Plaza	
Segment #4:		Drawing #5
Fishing Pier Plaza		
Segment #5:		Drawing #5, #6
From: Fishing Pier Plaza	*To*: Marina Entry Vista Point	

2.2.2 SEGMENT DESCRIPTIONS

SEGMENT	PROGRAM
Segment #1: From: Ramp of I-80 Overcrossing To: Southwest corner of East Lawn From: Bay Trail at University Avenue To: Bay Trail Extension east of Strawberry Creek Bridge	**Trail** • 12’ wide multi-use trail (asphalt) from I-80 bicycle/pedestrian overcrossing to Strawberry Creek Bridge (asphalt). Note: this is an interim alignment that will involve a temporary trail connection that may be modified by the State Department of Parks and Recreation in the future. • 12’ wide multi-use trail (asphalt) from Bay Trail to Strawberry Creek Bridge • 12’ wide smooth-surfaced trail on Strawberry Creek Bridge (see below) • 12’ wide multi-use trail (asphalt) from Strawberry Creek Bridge to East Lawn **Strawberry Creek Bridge** • Location: as close to University Avenue as possible extending out to edge of concrete vault to cover existing Strawberry Creek pipe • Design: clear span/bridge footings above hi water line • Bridge width: 12’ wide trail with • Railing height: conform to multi-use trail standards • Bridge color: blend with surrounding soil/vegetation • Bridge profile: low with deck at or near grade of University Avenue • Bridge railings: vertical design to render railing as transparent as possible • Bridge surface: smooth/conform to ADA requirements **Safety Facilities** • Trail and vehicular safety signs/markings for crossing of SeaBreeze entrance off of University Avenue • Trail and vehicular safety signs/markings for truck crossing of trail from SeaBreeze parking area to existing stockpiled materials area

Landscape

- University Avenue adjacent to SeaBreeze market, edge treatment and landscaping consistent with existing trail along West Frontage Road
- Removal of ice plant adjacent to Strawberry Creek Bridge
- Removal of some non-native vegetation in upland areas
- Native herbaceous hydroseeding of all disturbed areas

Segment #2:
From: Southwest corner of East Lawn
To: West side of Shorebird Park

Trail

- 12' wide multi-use trail (asphalt)
- 12' wide multi-use trail (concrete) identified by pavement patterns / colors and bollards in Southside Marina launching area

Related Access Facilities

- Relocated dry boat storage and renovated parking area to accommodate the Bay Trail Extension
- Removal of 8 parking spaces within immediate Southside Marina launching area (note: to be replaced at renovated parking area)

Other Recreation Facilities

- Benches along shoreline and within Southside Marina pedestrian area

Interpretive Facilities

- Interpretive stations at:
  - East of the existing windsurfing launching pier
  - Shorebird Park

Safety Facilities

- Trail safety signs on east side of windsurfing access from parking area (speed reduction / congested area)
- Trail and vehicular safety signs for crossings on either side of Southside Marina pedestrian area
- Change of pavement patterns / colors at vehicular entrance crossings

Landscape

- Replacement of turf in disturbed areas of East Lawn
- Turf area between parking area and trail adjacent to windsurfing access pier
- Replacement trees / shrubs

Segment #3:

From: West side of Shorebird Park
To: Hs. Lordships (south) Fishing Pier Plaza (north)

Trail

- 12’ wide multi-use trail (asphalt)

Related Access Facilities

- 5’ wide pedestrian trail linkages through parking areas to shoreline
- Portion of Seawall Drive to be removed with traffic directed through re-designed Hs. Lordships parking area
- Redesigned parking area to accommodate Trail and relocated parking spaces that will be removed along Seawall Drive (note: total parking capacity of area south of University Avenue to remain the same)
- Renovation of Seawall Drive immediately south of University Avenue with parallel parking to accommodate the Bay Trail Extension
- Gate on Seawall Drive at University Avenue (option)

Other Recreation Facilities

- Benches along east and west shoreline
- Windsurfing/kayak access ramps/steps to Bay and related facilities west of Hs. Lordships
- 3’ to 5’ wide ravel landing at base of steps
- Windsurfing/kayak wash-off area and observation point
- Open lawn along western shoreline between Hs. Lordships and Seawall Drive

Interpretive Facilities

- Interpretive stations at:
  - eastern shoreline
  - along western shoreline

Safety Facilities

- Trail / area lighting along western shoreline
- Trail safety signs on either side of the parking lot crossing (speed reduction / congested area)

- Pavement markings for trail through parking area
- Vehicle stop signs at trail crossings

Landscape

- New open turf in disturbed areas of East Lawn
- Replacement trees / shrubs

Segment #4:
Fishing Pier Plaza

Trail

- 12' wide multi-use trail (concrete) identified by pavement textures / colors and bollards

Related Access Facilities

- Bus stop facilities adjacent to trail at University Avenue
- Enhanced pedestrian paths to University Avenue bus stop

Other Recreation Facilities

- Seat walls overlooking sundial and pier in turf area

Interpretive Facilities

- Interpretive stations at:
  - Sundial

Safety Facilities

- Trail / area lighting along western shoreline
- Trail safety signs on either side of plaza (speed reduction / congested area)

Landscape

- New open turf in disturbed areas of East Lawn
- Replacement trees / shrubs

Segment #5:
From: Fishing Pier Plaza
To: Marina Entrance Vista Point

Trail

- 12' wide multi-use trail (asphalt)

Related Access Facilities

- Removal and relocation of portions of Seawall Drive to accommodate Trail
- Renovated parking area servicing Docks N-O and Yacht Club to provide approximately 18 additional spaces, handicapped parking, and fire and emergency access

Other Recreation Facilities

- Benches along shoreline
- Open lawn along eastern portions of Trail
- Renovated Marina Entrance Vista Point
- Western portion of Horseshoe Park to be renovated reducing Park's total size by approximately 3,500 square feet and useable area by approximately 750 square feet

Interpretive Facilities

- Interpretive stations at:
  - End of breakwater
  - Marina Entrance Vista Point

Safety Facilities

- Relocated fire and emergency access through parking area
- Trail / area lighting along western shoreline
- Trail safety signs on either side of Skates (speed reduction / congested area)
- End of Trail sign at Marina Entrance Vista Point

Landscape

- Replacement trees / shrubs within Horseshoe Park and planting buffer for wind protection adjacent to Docks N-O

2.2.3 OTHER DESIGN CONSIDERATIONS

The project contains several other design features that are listed below and are considered part of the proposed "project" addressed by the IS/MND.

Americans with Disabilities Act Guidelines. All portions of the Bay Trail Extension, renovated parking, related recreation facilities, and interpretive facilities will be developed and signed for universal access to accommodate requirements of the Americans with Disabilities Act (ADA).

Vehicular Parking. There will be no net loss of parking as a result of the Bay Trail Extension project. In association with the renovation of the parking area servicing Docks N-O and the Yacht Club, the project will provide for emergency access and an addition of approximately eighteen parking spaces, including handicapped-accessible spaces near the Yacht Club.

Bicycle Parking. Bicycle parking racks will be located at or near the following facilities and areas:

- Adventure Playground / Shorebird Park

- Hs. Lordship's
- Fishing Pier Plaza
- Skates

Lighting. Segments of the Bay Trail Extension where new area lighting will be used are:

- Segment 3: from Hs. Lordship's to and along the west shoreline
- Segment 4: entire plaza area
- Segment 5: entire trail segment along the west shoreline

All lighting standards along the Bay Trail Extension will be unified using a single design motif.

Landscape/Planting. With the exception of turf areas, use of native plants will be emphasized. A number of trees along the proposed Bay Trail Extension alignment will be removed. Many of these are aging and/or diseased. Where vegetation is removed, replacement vegetation will be provided. Table 4 lists the palette of plants being considered for use along the Bay Trail Extension.

Irrigation

Trees and Shrubs

Woody vegetation along the Bay Trail Extension will be water-efficient and, while requiring irrigation for a plant establishment period, should not require additional summer watering.

Turf Areas

Limited turf areas for sunning, informal open play, and windsurfing rigging / kayak staging along the Bay Trail Extension will be developed. Locations include:

- Adjacent to the parking area at the existing windsurfing access point in the Southside Marina launching area; and
- Parallel to the trail along the renovated Hs. Lordships parking area.

Anti-Graffiti Coating. All walls and other related trail features will be coated with an anti-graffiti coating to minimize maintenance.

Interpretive Stations. Locations for up to fourteen interpretive display panels are identified along the Bay Trail Extension.

General Grading and Drainage/Water Quality Enhancement. In most cases, drainage from the Bay Trail Extension and adjacent turf areas will be directed to grassy swales or enhancement wetlands. Exceptions include those areas where the trail passes through already paved areas where existing drainage systems will be used. These exceptions include: the South Sailing Basin, the entrance plaza to the Berkeley Pier, and the areas immediately in front of Hs. Lordship's and Skates restaurants.

Pet Controls. As required by Berkeley ordinance (Berkeley Municipal Code, Section 10.04.100), pets will be required to be on-leash along the trail. All other Berkeley Ordinances addressing dogs will be applicable.

Signs. A goal along the Bay Trail Extension is to limit signs to only those necessary to:

- Provide for the safety of the Marina visitor;
- Protect the surrounding environment; or
- Enhance the visitor's experience.

Five types of sign will be used. These include:

- Bay Trail Signs: located on the main connections between parking areas and the Bay Trail extension.
- Trail Bollards / Use Control Signs: with directional information and international symbols controlling trail use.
- Regulatory Signs: that provide information to park visitors about rules and regulations that affect park and trail use such as: the need to stop; reduce speed; congested areas; trail endings; and the hierarchy of yielding among trail users.
- Trail Safety Signs: that display warnings of such items as upcoming trail obstacles, street intersections, and blind curves.
- Roadway Regulatory and Safety Signs: that serve as caution signs to alert vehicles on the street system about an upcoming trail crossing, or as regulatory signs at intersections where typical crosswalks or signal controls are not sufficient to safely manage traffic/trail conflicts. The detail design of sign standards will be coordinated with the Eastshore State Park sign program.

Benches. Benches (or seat walls) for resting will be provided at regular intervals along the Bay Trail Extension.

Waste Management. Trash and recycling containers will be placed near all parking areas and at other locations as necessary. Pooper-scooper stations, if required within the Eastshore State Park, will be provided.

Hours of Use. The Bay Trail Extension will be managed for day use and will generally be closed based on current hours of operation of the parklands through which the Bay Trail Extension passes.

2.2.4 CONSTRUCTION METHODS AND SCHEDULE

Trail Construction. Trail construction will involve removing existing materials from along the trail corridor (clearing, grubbing, removal of pavement) to an approximately 1-foot depth. In areas of the Eastshore State Park parallel to University Avenue, fill will be imported to raise the trail bed to between 12-inches and 18-inches above existing grade. This fill will be necessary to achieve positive drainage of the trail surface.

The trail will be designed to accommodate light vehicular access for maintenance and emergency purposes. This typically will consist of 2-inches of asphalt over 6-inches of base rock. Construction will employ standard earthwork equipment (dozers, rippers, front loaders, scrapers / graders) and asphalt spreaders.

Bridge Construction. Construction of the proposed bridge crossings would generally involve using a pile driver to drive concrete piles for bridge footings, pouring concrete caps in place for the bridge footings, using a crane to lift pre-fabricated steel or concrete bridge section into place, and

fastening the bridge sections together. The proposed bridge crossing would be 12-feet wide. The length of the bridge would be approximately 110-feet. All of the bridge and Bay Trail Extension would be designed to conform to Americans with Disabilities Act (ADA) requirements. Construction material and equipment for the Strawberry Creek Bridge would be delivered in flatbed trucks. The concrete piles would be approximately 24 inches in diameter and approximately 30 feet to 60 feet in length. Two central piles and piles at each bridge end-footing location will be used. Once the piles are in place, a concrete cap would be poured in place on the piles. A concrete truck would mix the concrete, and a pump and pipeline would be used to pour the caps in place at each bridge footing. A crane would then be used to place bridge sections atop the caps. The crane would operate from University Avenue. Bridge construction activities could disturb a corridor up to 20-feet wide. Staging for Phase 1 construction, including the bridge crossing, would take place at a location south and west of the existing I-80 bicycle pedestrian over crossing on existing disturbed lands.

Schedule. Initial development will consist of the eastern-most segment leading from the existing I-80 over crossing to the southwest corner of the East Lawn of the Marina. This segment will encompass all portions of the Bay Trail Extension located within the Eastshore State Park.

Due to City budget constraints, there is only limited funding available for the project. Additional funding would be obtained over the next several years. Priorities to implement additional segments will be based on available funding and opportunities to coordinate the Bay Trail Extension with adjacent projects as called for in the Marina Master Plan.

No schedule is identified at this time. Construction timing is based on permitting and on the ability to obtain grant funding. The earliest construction year would be 2005. Construction would likely be limited to the dry season, with permit conditions further limiting bridge construction to the period between June 1st and October 1st.

2.3 References

City of Berkeley, October 21, 2002. Environmental Initial Study for the Berkeley Marina Master Plan.

LSA Associates, Inc. July 2002. Public Review Draft, Eastshore Park Project General Plan Environmental Impact Report, Prepared for: California Department of Parks and Recreation; East Bay Regional Park District; California State Coastal Conservancy.

LSA Associates, Inc. October 2002. Final, Eastshore Park Project General Plan Environmental Impact Report. Prepared for: California Department of Parks and Recreation; East Bay Regional Park District; California State Coastal Conservancy.

Wallace Roberts & Todd, LLC. July 15, 2002 Eastshore Park Project Preliminary General Plan. Prepared for: California Department of Parks and Recreation; East Bay Regional Park District; California State Coastal Conservancy.

Wallace Roberts & Todd, LLC. November 8, 2002. Proposed Text Changes-Eastshore Park Project Preliminary General Plan, Prepared for: California Department of Parks and Recreation; East Bay Regional Park District; California State Coastal Conservancy.

Wolfe Mason Associates. July 29, 2002. Draft Marina Master Plan. Prepared for: City of Berkeley Parks Recreation & Waterfront Department.

3: MITIGATED NEGATIVE DECLARATION

3.1 Introduction

The City of Berkeley proposes to extend the Bay Trail to facilitate and enhance non-motorized pedestrian and bicycle access to the Berkeley Marina from the existing pedestrian and bicycle overcrossing of Interstate 80. The project consists of an asphalt trail, benches, area and trail lighting, interpretive stations, picnic tables, a wooden pedestrian bridge with concrete trail, and alterations to existing parking facilities and Seawall Drive.

As required by the California Environmental Quality Act (CEQA), the City of Berkeley has assessed the potential environmental impacts of the proposed Bay Trail Extension from the existing pedestrian and bicycle overcrossing of Interstate 80 to the southern and western edges of the Marina and to the Berkeley Yacht Club. This Mitigated Negative Declaration has been prepared based on the assessment presented in the Berkeley Bay Trail Extension Initial Study.

3.2 Environmental Determination

An Initial Study (attached) was prepared to assess the potential effects of the Bay Trail extension on the environment in the project area. The analysis of environmental impacts related to the project is based on data gathered for this project and other related documents. A biological study was conducted for the project and is used in the analysis (LSA Associates, Inc. 2003).

Based on the analysis presented in this Initial Study, the proposed project and related actions would have less-than-significant effects or no impacts in the areas of:

- Agricultural Resources
- Mineral Resources
- Utilities and Service Systems

Potentially significant impacts would result on the environmental resources listed below without mitigation. With mitigation, the project would have less-than-significant impacts on:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Public Services
- Recreation
- Transportation/Traffic

Mitigation measures have been identified to reduce potentially significant impacts of the project. Implementation of identified mitigation measures would result in avoiding the impact or reducing it to a less-than-significant level. The potentially significant and less than significant impacts of the project, with corresponding mitigation measures, are described below.

AESTHETICS

The proposed project would result in the removal of 98 trees greater than 6 inches in diameter at breast height (dbh). No such trees would be removed in the construction of Segment 1, which is under the jurisdiction of Eastshore State Park. Indigenous and specimen trees will not be removed. All removed trees will be replaced as part of the project. Replacement trees will be chosen from the Master Plant List. To ensure less than significant impacts to the aesthetics of the Marina, the following mitigation measure will be implemented.

> **Mitigation Measure 4.3.1-1.** A tree removal and replacement design plan shall be submitted to the City for approval that outlines the exact species and location of trees to be removed as well as the species, location and size of replacement trees. Trees greater than 6 inches dbh shall be replaced at a 4:1 ratio. Tree root growth shall be considered when choosing replacement tree location to minimize chances of uprooting the trail or other structures. Irrigation and replacement tree maintenance shall also be included in the plan. The plan shall be implemented prior to the completion of the project.

AIR QUALITY

Dust and exhaust emissions would be produced during the construction phase of the project. Emissions during construction would be short-term and localized; however, due to frequent high winds in the project area, wind-blown dust could be a short-term, potentially significant impact if mitigation is not implemented. Implementing Mitigation Measure 4.3.3-1 would ensure that dust emissions from construction would not violate any air quality standards or contribute substantially to an existing projected air quality violation. [3]

Mitigation Measure 4.3.3-1. Prior to site grading, a grading plan shall be submitted to the City of Berkeley Planning Department for review. The grading plan shall include measures to reduce emissions from construction equipment and wind blown soils that shall include, but not be limited to, twice-daily watering of disturbed soils as necessary during dry periods, proper maintenance of construction equipment, and other Best Management Practices to reduce windblown dust. The grading plan shall be followed for all construction activities for the project. The following measures to prevent PM_{10} emissions shall also be incorporated into the grading plan (refer to (c) below).

Basic Control Measures (All construction sites)

1. Water all active construction areas at least twice daily.
2. Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.
3. Pave, apply water three times daily, or apply (nontoxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
4. Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.
5. Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.

Enhanced Control Measures (Construction sites greater than 4 acres)

6. All “Basic” control measures listed above.
7. Hydroseed or apply (nontoxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
8. Enclose, cover, water twice daily or apply (nontoxic) soil binders to exposed stockpiles (dirt, sand, etc.)
9. Limit traffic speeds on unpaved roads to 15 mph.
10. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
11. Replant vegetation in disturbed areas as quickly as possible.

BIOLOGICAL RESOURCES

The burrowing owl (*Athene cunicularia hypugea*) has been observed at the project site, but nesting has not been recorded within the project site or vicinity. The owl is designated as a California Species of Special Concern, but is not state or federally listed as endangered or threatened. Within the project site, wintering burrowing owls have been observed in the shoreline area south of University Avenue, west of the Strawberry Creek outfall. Suitable nesting and roosting sites for burrowing owls at the project site include ground squirrel burrows, rip-rap, and concrete rubble piles. On March 28, 2003, an LSA biologist searched for burrowing owls within suitable habitat at the site; no burrowing owls or owl sign (e.g., pellets, white-wash, feathers, prey remains) were observed. Additional surveys prior to construction would be necessary to verify that owls are not present at the project site. If any occupied burrows are identified during these surveys, the project would have a potentially significant impact on burrowing owls. Implementation of Mitigation Measure 4.3.4-1 below would reduce potential impacts on burrowing owls to a less than significant level.

> **Mitigation Measure 4.3.4-1.** Surveys shall be conducted for burrowing owls within 30 days prior to all construction in all areas identified at the time of construction to have suitable habitat for burrowing owls, following the CDFG survey protocol currently in effect at that time. If construction activities are delayed or suspended for more than 30 days, the site shall be re-surveyed. A construction buffer shall be established around each occupied burrow, at a minimum radius of 160 feet (50 meters) from the burrow during the non-breeding season (September 1 through January 31) and 250 feet (75 meters) from the burrow during the breeding season (February 1 through August 31). During the non-breeding season, if such buffers cannot be protected, the burrowing owls shall be passively relocated prior to construction, subject to prior approval of CDFG (CDFG does not allow relocation of burrowing owls during the breeding season).

The trees in the project area provide potential nesting habitat for white-tailed kites (*Elanus leucurus*) (a California Fully Protected Species), and other tree-nesting raptors such as Cooper's hawk (*Accipiter cooperii*) (a California Species of Special Concern), red-tailed hawk (*Buteo jamaicensis*), and red-shouldered hawk (*Buteo lineatus*). A pair of white-tailed kites was recorded as nesting in a tree on the north side of the Marina in 1994. The relatively high use of the project site by visitors and dogs reduces the likelihood that raptors would nest in the project area. No raptors, raptor nests, or potential raptor nests were observed during the LSA site visit on March 28, 2003. It is possible, however, that raptors nest, at least occasionally, in or near the project site and thus could be adversely affected by the project. Implementation of Mitigation Measure 4.3.4-2 below would reduce potential impacts on raptors to a less than significant level

> **Mitigation Measure 4.4.4-2.** If any trees (greater than 15 feet tall) are to be removed during the breeding season (March 1st through August 31st), surveys shall be conducted for white-tailed kite, Cooper's hawk, red-tailed hawk, red-shouldered hawk, and other raptors within 30 days prior to tree removal. If an active raptor nest(s) is located in or within 200 feet from the project site, a construction buffer, at a minimum radius of 200 feet from the dripline of the nest tree, shall be established around each nest until nesting activities have ended. No construction activities shall be allowed within the 200-foot buffer(s) until the nesting raptors have left the nest(s).

The project is unlikely to have a substantial on-site impact on any other special-status plant or animal species. It could, however, result in off-site impacts due to the disposal of soils contaminated by perennial pepperweed (*Lepidium latifolium*), a highly invasive species. Perennial pepperweed has been observed at the sandy beach near the Strawberry Creek outfall, the uplands west of the outfall, and the area between the outfall and the Sea Breeze Market. This non-native weed is known to infest high salt marshes, sandy beaches, mudflats, and adjacent uplands and thus can substantially degrade habitat for special-status wildlife and plant species. Soil containing pepperweed seeds or pieces of root stock, if removed to an off-site location, could cause pepperweed infestations at other sites, potentially resulting in a significant impact on sensitive wildlife habitat or special-status plant species. Implementation of Mitigation Measure 4.3.4-3 below would reduce potential off-site impacts on special-status species to a less than significant level

> **Mitigation Measure 4.3.4-3.** If any excavated soil is to be moved off-site, such excavation areas shall first be inspected by a qualified botanist, who shall identify those areas that are potentially contaminated by perennial pepperweed seeds or root stock. Soil excavated from the identified areas shall be disposed of within the project site if no pepperweed is found or in a qualified landfill if the soil contains pepperweed.

The only sensitive natural communities in the project area or vicinity are wetlands and other waters of the United States (including the waters of San Francisco Bay; see discussion below). Impacts on wetlands and other waters of the United States are regulated by the U.S. Army Corps of

Engineers (Corps) under Section 404 of the Clean Water Act, and impacts on the waters of San Francisco Bay are regulated by the Corps under Section 10 of the Rivers and Harbors Act. Permits from the Corps and the San Francisco Bay Regional Water Quality Control Board (RWQCB) are usually required for fill, excavation, or dredging of such wetlands or waters. A permit must be obtained from the San Francisco Bay Conservation and Development Commission (BCDC) for any impacts on San Francisco Bay, including filling, dredging, or construction of structures over the Bay. Thus, BCDC would require a permit, and may require mitigation, for the portion of the pedestrian bridge that is over the Bay, as well as for the two piers that would be placed in the Bay. BCDC also requires a permit for project features within a 100-foot-wide shoreline band adjacent to the Bay. Implementation of Mitigation Measure 4.3.4-4 below (and Mitigation Measure 4.3.4-5, under item c) would reduce impacts on areas subject to the jurisdiction of the Corps, RWQCB, and BCDC to a less than significant level.

> **Mitigation Measure 4.3.4-4.** Prior to construction, the City of Berkeley shall obtain permits from the Corps, RWQCB, and BCDC for impacts and project features within the jurisdiction of those agencies. The City shall comply with the terms and conditions of those permits, including mitigation measures, if required.

There are two small, seasonal wetlands located in the ruderal/non-native grassland of the project area, west of the Strawberry Creek outfall and south of University Avenue. These wetlands may be federally protected under Section 404 of the Clean Water Act; impacts on the wetlands may require permits from the Corps and RWQCB. The wetlands have limited value as wildlife habitat because of their small size (about 500 square feet each); their close proximity to University Avenue (less than 40 feet away), and the high level of disturbance due to visitors, dogs, and periodic mowing. During the March 28, 2003 field survey, no standing water was present in the wetlands. Although no grading or construction is proposed in the wetlands, they could be disturbed by construction of the nearby trail. Implementation of Mitigation Measure 4.3.4-5 below would reduce potential impacts on the seasonal wetlands to a less than significant level.

> **Mitigation Measure 4.3.4-5.** No construction equipment or disturbance shall be allowed within the two seasonal wetlands or within 10 feet from the wetlands. A 10-foot-wide buffer shall be established around each wetland to protect it during construction, and silt fencing shall be installed at the outer edge of the buffers. The silt fencing shall be properly maintained during construction and properly removed after construction to avoid impacts on wetlands.

Several wildlife species utilize the Marina as habitat. An increase in visitors that may accompany improved facilities may also increase the amount of trash in receptacles along the path. Trash can potentially attract predators (such as skunks, raccoons, rats, squirrels, and opossum) and artificially increase populations threatening other species. The following mitigation measure would reduce these potential impacts to less than significant levels

> **Mitigation Measure 4.3.4-6.** The City of Berkeley shall use trash receptacles within the Eastshore State Park that are designed to be inaccessible to animals.

CULTURAL RESOURCES

The project would be located on fill material and bay mud. Archaeological resources as defined in 15064.5 of the CEQA guidelines are not expected to exist in the project area; however, there is a low potential that resources may be encountered in the Strawberry Creek area of the project. During excavation of soil for the construction of the bridge, or during ground disturbing activities for trail construction, undocumented archaeological resources could potentially be disturbed. The

implementation of Mitigation Measures 4.3.5-1 and 4.3.5-2 would reduce this impact to a less than significant level.

> **Mitigation Measure 4.3.5-1.** If archaeological resources are discovered during excavation, all work in the immediate vicinity shall be suspended pending site investigation by a qualified archaeologist to assess the materials and determine their significance. If a qualified professional determines that the resource shall yield new information or important verification of previous findings, construction in the immediate area shall not resume until state and federal officials have been consulted and the resources appropriately evaluated and treated, as required under federal and state regulations.

> **Mitigation Measure 4.3.5-2.** If archaeological resources are discovered during excavation for the proposed action and avoidance of these resources is not feasible, evaluation of the resources shall be required. An evaluation plan shall be prepared that provides for the methodical excavation of resources that would be adversely affected. Only a qualified archaeologist shall be allowed to collect any discovered prehistoric resources. The work shall be accomplished within the context of a detailed research design and in accordance with current professional standards. The plan shall result in the extraction of sufficient volumes of non-redundant archaeological data to address important regional research issues. Detailed technical reports shall be prepared to document the findings. If the resources are determined to be eligible for listing on the National Register of Historic Places, an appropriate treatment (mitigation) plan shall be developed and implemented. Treatment would include data recovery to gather the information contained in the site.

The project is located primarily on recent bay fill and has very low potential to disturb human remains. The implementation of Mitigation Measure 4.3.5-3 would ensure this impact is less than significant.

> **Mitigation Measure 4.3.5-3.** If the project sponsor or any construction contractors discover prehistoric archaeological deposits that include human remains during excavation for the proposed project, the County Coroner shall be immediately notified. If the remains are found to be Native American, local Native American groups and the Native American Heritage Commission (NAHC) shall be notified within 24 hours. The most likely descendents of the deceased Native American shall be notified and given the chance to make recommendations for the remains. If no recommendations are made within 24 hours, remains may be reinterred elsewhere on the property. If recommendations are made and not accepted, the NAHC shall mediate the problem.

GEOLOGY AND SOILS

A system of parallel faults, including the Hayward, Rodgers Creek, Calaveras, San Andreas, and numerous other faults exist in the project vicinity and pose a potential threat to the community. Ground shaking is the vibration that radiates from the movement of a fault. Because it can damage or collapse buildings and other structures, ground shaking is the most serious and direct hazard produced by an earthquake. According to the City of Berkeley General Plan, the Marina district is in a zone of strong shaking if the Hayward fault, the closest fault to the project site, were to produce an earthquake. The proposed Strawberry Creek Bridge would be at risk of damage from strong seismic-shaking; however, with implementation of Mitigation Measure 4.3.6-1, impacts from seismic shaking would be less than significant.

The proposed Strawberry Creek Bridge would be at risk of damage from unstable soil; however, Mitigation Measure 4.3.6-1 would reduce this impact to a less than significant level.

The proposed Strawberry Creek Bridge would be located on expansive soils; however, incorporation of Mitigation Measure 4.3.6-1 would reduce impacts to the bridge resulting from expansive soils to a less than significant level.

> **Mitigation Measure 4.3.6-1.** The Strawberry Creek Bridge shall be designed by a licensed engineer and shall conform to the seismic design standards of Caltrans and the Uniform Building Code (UBC).

Construction activities would temporarily result in unstable soil conditions, which could lead to erosion and topsoil loss. There would also be a minor amount of ground disturbance associated with the construction of the Strawberry Creek Bridge.

Considering the sensitivity of the shoreline area, sedimentation and erosion effects from trail runoff could potentially be significant if unmitigated. Surface conditions throughout the project area have been considered by the design team to evaluate the potential for soil loss by erosion and to develop means (by grading, structural measures, and/or other improvements) to control erosion. Implementation of Mitigation Measures 4.3.6-2 and 4.3.6-3 would reduce erosion and topsoil loss to a less than significant level.

> **Mitigation Measure 4.3.6-2.** Prior to ground disturbance, a grading plan shall be submitted to the City Public Works Department for review. The grading plan shall include a construction erosion control plan with Best Management Practices designed to minimize sediment in site runoff during construction. The provisions shall include: limiting the size of areas disturbed, watering of disturbed soils twice daily, avoiding long unbroken flow paths, making drainage swales broad and flat, and routing off-site drainage around newly disturbed areas. The grading plan shall also have provisions for minimization of grading and excavation and for a balance of cut and fill. Trapping sediment before it leaves the construction site would minimize any potential sedimentation of waterways. This would be accomplished through the use of riprap, or siltation fencing. (Sediment fencing is preferred over hay bales because use of hay has been found to proliferate the expansion of invasive and non-native species.) Any disturbed areas should be revegetated as soon as possible once construction is completed; where appropriate, topsoil should be stockpiled and used for the revegetation of disturbed areas. This plan shall be implemented during project construction.
>
> **Mitigation Measure 4.3.6-3.** Earthmoving activities shall not occur during rainy periods of the year.

HAZARDS AND HAZARDOUS MATERIALS

Minimal ground disturbance and excavation is necessary for construction of each segment of the trail. In certain locations some tree removal is necessary. Construction of the pile-supported bridge across Strawberry Cove would result in minimal surface and subsurface disturbance. The soils of this area contain some chemicals of potential concern (COPC) due to previous landfill activities (see Section 4.2.2, Local Setting in the Initial Study). Strawberry Cove also contains perennial pepperweed (*Lepidium latifolium*), which is believed to be toxic and is an invasive plant.

Implementation of the following mitigation measures would reduce risks of hazardous materials release into the environment to a less than significant level.

> **Mitigation Measure 4.3.4-3.** If any excavated soil is to be moved off-site, such excavation areas shall first be inspected by a qualified botanist, who shall identify those areas that are potentially contaminated by perennial pepperweed seeds or root stock. Soil excavated from

the identified areas shall be disposed of within the project site if no pepperweed is found or in a qualified landfill if the soil contains pepperweed.

Mitigation Measure 4.3.7-1. Excavated soils from all non-paved areas should be handled such that dust is controlled, minimizing exposure to construction crews and recreationalists.

Mitigation Measure 4.3.7-2. Excavated and freshly exposed soils in the Berkeley Brickyard shall be tested for petroleum hydrocarbons, metals and CPOCs. Prior to disposal or reuse, any excavated soils found to contain contaminants at levels considered unsafe for human exposure or environmental exposure shall be disposed of appropriately. If exposed soil is found to contain CPOCs, a layer of uncontaminated, clean soil shall be imported and filled over the existing soil to prevent exposure of CPOCs in the surface layer.

Mitigation Measure 4.3.7-3. The City shall coordinate with the California Department of Toxic Substance Control (CDTSC) Voluntary Cleanup Program and take the necessary steps to ensure proper cleanup and disposal of any contaminated soils encountered during construction.

HYDROLOGY AND WATER QUALITY

Project construction activities could potentially affect surface water quality through erosion. Grading and earthmoving activities associated with bridge construction or trail surface preparation would be of relatively limited extent, but could expose disturbed soils to the erosive forces of wind and/or rain. This potential could lead to increased sediment deposition on the shoreline or in Strawberry Cove. Existing rip rap along the shores of the Marina would lessen erosion.

Construction activities involving minimal amounts of grading and earthmoving activities could potentially affect the existing drainage pattern of the site. Construction activities would be temporary in duration and the following Mitigation Measure would reduce these impacts to less than significant levels.

Mitigation Measure 4.3.6-2. Prior to ground disturbance, a grading plan shall be submitted to the City Public Works Department for review. The grading plan shall include a construction erosion control plan with Best Management Practices designed to minimize sediment in site runoff during construction. The provisions shall include: limiting the size of areas disturbed, watering of disturbed soils twice daily, avoiding long unbroken flow paths, making drainage swales broad and flat, and routing off-site drainage around newly disturbed areas. The grading plan shall also have provisions for minimization of grading and excavation and for a balance of cut and fill. Trapping sediment before it leaves the construction site would minimize any potential sedimentation of waterways. This would be accomplished through the use of riprap, hay bales, or siltation fencing. Any disturbed areas should be revegetated as soon as possible once construction is completed; where appropriate, topsoil should be stockpiled and used for the revegetation of disturbed areas. This plan shall be implemented during project construction.

Mitigation Measure 4.3.6-3. Earthmoving activities shall not occur during rainy periods of the year.

The parking facilities could introduce associated pollutants such as oil and grease. Mitigation Measures 4.3.8-1, 4.3.8-2, and 4.8.3-3 would reduce risks to surface water quality to a less than significant level.

The project would result in the paving of some surfaces not currently paved or the expansion of currently paved areas impervious to water. Approximately 1.3 acres of new impervious surface would be introduced over the entire project area, occurring mainly in Segment 1. There is potential

for additional sources of polluted runoff water. Mitigation Measures 4.3.8-1, 4.3.8-2, and 4.8.3-3 would reduce risks to surface water quality to a less than significant level.

> **Mitigation Measure 4.3.8-1.** All necessary permits from the San Francisco Bay Regional Water Quality Control Board (RWQCB) shall be obtained before construction. A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared in accordance with Section 4019(A)(1) of the Clean Water Act. The plan shall address control of runoff from parking lots and other impervious surfaces.
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> **Mitigation Measure 4.3.8-2.** Renovated parking lots shall be designed with grease traps installed in storm drains and shall be subject to periodic maintenance.
>
> **Mitigation Measure 4.3.8-3.** The project shall be subject to all requirements as listed in the Alameda Countywide Clean Water Program (ACCWP).

LAND USE AND PLANNING

Several land use plans, policies and regulations are applicable in the project area. Some policies would require approvals or permits for the proposed project. The project would have a significant impact if these permits or approvals were not secured. Mitigation is provided to prevent impacts to policy and regulatory compliance.

Since the project belongs to the City of Berkeley, there would be a significant impact to established policies if formal approval from the California Department of Parks and Recreation is not secured before construction. Mitigation Measure 4.8.9-1 would eliminate this potential impact.

> **Mitigation Measure 4.8.9-1.** For the portions of the Bay Trail Extension that are within the Eastshore State Park, agreements shall be formalized between the City of Berkeley and the California Department of Parks and Recreation to allow the City of Berkeley to make improvements on State Lands.

The BCDC regulates development, as authorized under the McAteer-Petris Act, of projects within 100 feet from the edge of the Bay. The proposed project occurs within 100 feet from the edge of the Bay; therefore Mitigation Measure 4.8.9-2 will be implemented in order to meet BCDC regulations.

> **Mitigation Measure 4.8.9-2.** A permit from the BCDC shall be secured for the proposed project before construction can commence, if necessary. The design plans for the Berkeley Bay Trail Extension and any associated structures shall be submitted for approval upon certification of this Negative Declaration.

A portion of the project is located on State Lands. Article 2, under Leasing and Other Use of Public Lands, of the State Lands Commission Regulations regulates the leasing of all lands under the Commission's jurisdiction for all surface uses except the exploration for or extraction of natural resources including minerals, oil, gas or other hydrocarbons, or geothermal resources or any other natural resources, excluding timber. An application for a permit or a lease may be necessary for this project. The following mitigation measure will ensure that State Lands Commission Regulations are not violated.

> **Mitigation Measure 4.8.9-3.** The State Lands Commission will be consulted and any permits or leases will be secured, if necessary, for the City of Berkeley to make improvements on State Lands.

NOISE

Construction equipment would generate intermittent high noise levels. Noise generation would be limited to the construction timeframe, which would be a matter of months per segment. Project construction would not affect any sensitive noise receptors (other than wildlife, see Section 4.3.3 Biological Resources). The construction of the Strawberry Creek Bridge would generate the highest level of noise since pile drivers would be used to place the bridge support systems. Pile drivers would be used on an extremely short-term basis (i.e. one to two days). The pile drivers that would be used are approximately 60 feet in height, and would be highly visible to people in the vicinity of the proposed area where pile driving would occur. Visibility would generally discourage close range exposure, since most individuals associate large equipment with loud noise.

The project construction would subject individuals to noise levels above regulations or standards without mitigation. The Berkeley Marina is considered to be an "unclassified" zone according to the Berkeley Municipal Code. No noise standards are identified for an unclassified area in the Berkeley General Plan; however, noise should not be considerably louder than the ambient level. Construction noise could be significantly louder than the ambient noise levels in the area. Mitigation Measures 4.3.11-1 and 4.3.11-2 would reduce sound impacts to a less than significant level.

> **Mitigation Measure 4.3.11-1.** Noise control equipment shall be used on construction equipment (i.e. mufflers) to reduce noise levels. Impact tools should be shielded or shrouded when practical and all equipment should have muffled exhaust systems.
>
> **Mitigation Measure 4.3.11-2.** During pile driving activities at Strawberry Cove, the City of Berkeley shall place warning signs identifying the potential for increased noise levels in the vicinity due to construction activities. These signs should be placed along public access routes approximately 500 feet from the site of pile driving activities. This distance would reduce noise levels generated by pile driving to approximately 70 dBA, which would be consistent with City of Berkeley noise guideline

PUBLIC SERVICES

Project construction will involve the removal of part of Seawall Drive from Segments 3 and 5. Traffic will be re-designated through Hs. Lordships parking area. The parking lots servicing docks N-O and the Yacht club will be renovated with additional parking spaces. Emergency vehicle access will be provided through these lots. Current fire protection and EMT services could suffer from decreases in response times or other performance objectives as a result of the relocation of access ways from Seawall Drive to the parking lots. The implementation of Mitigation Measure 4.3.13-1 would ensure that less than significant effects to fire and EMT response times and access would result from the relocation of access from Seawall Drive through the parking lots.

> **Mitigation Measure 4.3.13-1.** Fire access lanes through the parking lots shall be designed to meet appropriate standards and the guidelines of the Uniform Fire Code and the City of Berkeley Planning Department. Fire access routes shall be clearly identified and recognizable, be at least 20 feet wide, have at least a 13 ft. 6 in. vertical clearance from trees, be suitable in all weather conditions, and constructed to support the weight of fire engines.

RECREATION

Build out of the proposed project will be phased over a number of years, depending on I–80 bicycle/pedestrian overcrossing to the southwest corner of the East Lawn of the Marina. During

construction, portions of the existing trail and access to nearby facilities could be inaccessible, which could be considered a significant impact on recreation. Implementation of the following mitigation measure would assure a less than significant effect to facility access.

> **Mitigation Measure 4.3.14-1**. During the construction of each segment of the project, surrounding facilities shall remain open to the extent feasible. Temporary, alternate entrances and access paths shall be provided in order to prevent inaccessibility to any of the recreational opportunities at the Marina where possible.

TRANSPORTATION/TRAFFIC

The proposed project could increase hazards due to design features. Certain areas of the Bay Trail Extension will involve multiple use intersections, such as at the entrance around Hs. Lordships. There is a risk of high-speed bicyclists or rollerbladers endangering pedestrians crossing the trail to enter Hs. Lordships or Skates restaurants. Impacts would be reduced to less than significant levels by the inclusion of safety signs and pavement markings indicating a multi-use intersection. Currently, there are no speed limits posted in the parking lots. The renovated parking lot design could increase hazards to pedestrians walking through the lots and to cars moving in and out of spaces. Mitigation Measure 4.3.15-1 would reduce impacts to a less than significant level.

> **Mitigation Measure 4.3.15-1.** The maximum speed limit allowed in parking lots shall be 15 miles per hour. Signs shall be posted at the entrance of lots and within lots indicating speed limits and warning of a congested area.

An emergency evacuation route extends all the way down University Avenue to where it intersects with Marina Boulevard at the entrance of the Marina. The project would not interfere with emergency response routes or plans. Project construction would involve the removal of part of Seawall Drive from Segments 3 and 5. Traffic will be re-designated through Hs. Lordships parking area. The parking lots servicing docks N-O and the Yacht club would be renovated with additional parking spaces. Fire and emergency access will be provided through these lots. Mitigation Measure 4.3.13-1 from Public Services would ensure less than significant impacts to emergency access as a result of emergency access relocation through parking lots.

> **Mitigation Measure 4.3.13-1.** Fire access lanes through the parking lots shall be designed to meet appropriate standards and the guidelines of the Uniform Fire Code and the City of Berkeley Planning Department. Fire access routes shall be clearly identified and recognizable, be at least 20 feet wide, have at least a 13 ft. 6 in. vertical clearance from trees, be suitable in all weather conditions, and constructed to support the weight of fire engines.

The total parking capacity of the area south of University Avenue will remain the same. There will be a net increase of 10 designated parking spaces as a result of the project. The renovated parking area servicing Docks N-O and the Yacht club will provide an additional 18 parking spaces including handicapped parking. Handicapped parking will be designed and designated in accordance with ADA Regulations for Title III regarding parking Standards for Accessible Design establishing minimum standards for ensuring accessibility when designing and constructing a new facility or altering an existing facility. Implementation of the following mitigation measure would ensure less than significant impacts as a result of parking lot renovation.

Mitigation Measure 4.3.15-2. Final parking lot design plans that include a description of renovated areas, new lot features, parking space and access route layout, and any other safety and design features will be submitted to the City for approval before build-out.

3.3 Determination

This Initial Study presents an evaluation of the key environmental issues associated with implementation of the Berkeley Bay Trail Extension. All environmental impacts associated with implementation of the plan would be less than significant with implementation of mitigation measures. The identified mitigation measures will reduce potentially significant environmental impacts of the proposed project.

_____ _____

Signature Date

_____

Title

4: INITIAL STUDY

4.1 Introduction

The City of Berkeley proposes the Berkeley Bay Trail Extension project as a spur of the San Francisco Bay Trail to improve bicycle and pedestrian access to the Berkeley Marina (Figure 4). The trail would enhance pedestrian and bicycle access from the existing Interstate 80 (I-80) pedestrian/bicycle over-crossing and the existing Bay Trail through the Berkeley Marina.

ENVIRONMENTAL REVIEW

Implementation of the proposed project would require approvals from state and local agencies; therefore, the proposed project is subject to environmental review pursuant to the California Environmental Quality Act (CEQA). 2M Associates, under contract with the City of Berkeley, has prepared the Bay Trail Extension to the Berkeley Marina Plan to identify the trail alignment and design. The design for the Berkeley Bay Trail Extension has been integrated with the environmental impact analysis process to the maximum extent possible. This section has been prepared as an Initial Study (IS) under CEQA.

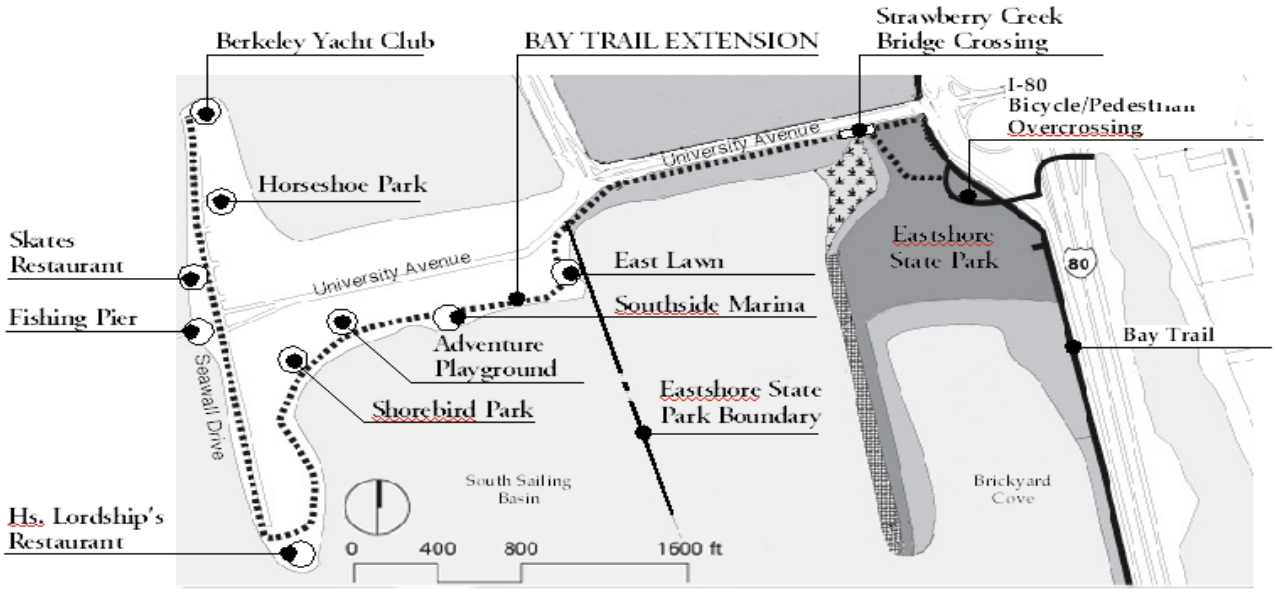
4.1.1 INTENDED USE OF THE INITIAL STUDY

This Initial Study (IS) has been prepared under the requirements of CEQA and the CEQA Guidelines. The IS provides a focused analysis of the potential environmental impacts of the Berkeley Bay Trail Extension bicycle/pedestrian pathway project. The IS will serve as the basis for a Mitigated Negative Declaration for the project. A third-party consultant, under the direction of the lead agency agencies, prepared this environmental document.

The intended use of this IS is to identify any environmental impacts of the project and to identify opportunities to refine the Design Plan to further reduce environmental impacts while still upholding the general goals of the Bay Trail Extension Project. If the project is approved, this IS/MND will be used by the Council when approving a construction contract for the build-out of the Bay Trail Extension to the Berkeley Marina. The goals of the project are to:

- Provide access to waterfront recreation and education opportunities for all residents in the City of Berkeley and visitors
- Direct attention to the San Francisco Bay and the qualities of timelessness that a tidal environment imparts
- Develop and improve focal points along its route and portray a distinctive image that showcases the Marina

Figure 4: Proposed Trail Location



SOURCE: 2M Associates 2002

- Be developed and managed in a way that enhances water quality, plant and animal habitat conditions, and open space and natural resource values while promoting water and energy conservation and minimizing environmental impacts.
- Be implemented in a phased manner such that Berkeley residents are encouraged to use it as an alternative to automobile travel as a means of accessing the Marina shoreline
- Allow improvements to the Bay Trail Extension that support: structural integrity, function, and safety; cost effectiveness; and efficiency in long-term maintenance and operations.
- Develop and manage the Bay Trail Extension for safe public use opportunities and not preclude emergency access and maintenance access for public facilities.

4.1.2 METHODS

Data Collection

Existing site data were obtained from site visits and a number of existing documents prepared for projects in and around the Berkeley Marina. The sources are listed in Section 4.3.18. Baseline data were gathered from sources from similar and overlapping projects, such as the Eastshore State Park Master Plan and Environmental Impact Report (EIR), from literature and Internet research, and consultation with appropriate agencies and organizations.

Public Scoping

Public scoping was conducted to identify pertinent environmental issues and concerns regarding the proposed project. The City of Berkeley sent out a Public Notice to 155 individuals and organizations announcing a public workshop and public scoping meeting for the Bay Trail Extension project. A public scoping meeting was held on March 22, 2003, at the Berkeley Marina, to present information about the proposed project and to solicit public input.

A summary of the environmental issues and concerns for the proposed project that were raised through the scoping process are described below.

Aesthetics

- The project should not remove trees near Hs. Lordship's Restaurant.
- The project should not take away perpendicular parking used by the disabled to enjoy views of the water. If the parking is moved back 50 feet, the users will not see the waves.
- Removing twenty feet of Horseshoe Cove would affect the feeling of peace; the park size should not be reduced.
- The Strawberry Creek Bridge should cover up the pipeline.
- The bridge design would not facilitate view points because the railing on one side is too high and the wall of the bridge would prevent visual access to plant life.
- A viewpoint on the bridge is not necessary because vantage points can be established on either side from the ground.
- Lights should be designed to point down and away from habitat.
- A low-profile bridge design is preferred.
- Design of trail and amenities should be compatible with the Eastshore State Park General Plan.

Biological Resources

- Perennial pepperweed (*Leppideum latifolium*) exists in the cove. The new pedestrian bridge design would limit access to the plant for the Friends of Strawberry Creek Volunteers that remove the plants. Perennial pepperweed is a competitive species that pushes out desirable vegetation and results in dense monocultures and a decrease in biodiversity. When established along rivers and streams, the plant interferes with the regeneration of willows and cottonwoods, reducing cover and food availability for birds. The accumulation of semi-woody stems negatively impacts nesting habitat for wildlife. Although there is no scientific evidence, it is believed that pepperweed is toxic and could pose a threat to livestock (Krueger 1999).
- The basin at Strawberry Cove is filling with sediment. More incised channels will continue to form and habitat will start accreting out to the bay. A coastal marsh could begin to form, which may make for a good interpretation point.

Hazards

- Soil disturbed in the construction of the bridge and trail would be considered toxic soil because of the pepperweed.

Land Use

- Before digging commences, other projects should be identified and finalized to avoid constructing overlapping trails or more trails than necessary in the area. A good trail exists on the south side, which may preclude the need for a trail on the north side, too. Coordination with State Parks should occur.

- The project has limited itself south of University Avenue appearing to have redundancy with a state trail. The need for four lanes of University to Sea Breeze was questioned. The trail could be placed north 25-30 feet, which would give more opportunity for recreation. The bridge can be moved closer to the existing bridge and/or the trail could be routed on lanes of University Avenue.

Traffic

- Consider parking circulation patterns in the parking lot outside Hs. Lordship's Restaurant. Segregate parking for those using the restaurant by directing of traffic to the southeast side.
- The project should not take away perpendicular parking used by the disabled to enjoy views of the water. If the parking is moved back 50 feet, the users will not see the waves. Disability vans can get blocked in. Perpendicular parking needs to be maintained along trail Segment 3-3, along Seawall Drive. Parking design should allow space needed for vans to put out ramps on either side.
- Windsurfers park on eastern side of Seawall Drive. Concerns that under the new design, those windsurfers would have to park too far away. Request for an access point in riprap along segment 3-1/3-2 for when windsurfers get caught north of the access point by Hs. Lordship's Restaurant.
- Concerns about taking away perpendicular parking for fishermen. Many unload from the perpendicular parking spots and if much of that parking were moved, users would have a longer hike from the lot to the pier with their equipment.
- Look at alternative of circumventing parking lot to avoid conflicts in front of Hs. Lordship's Restaurant. There were concerns with high-speed bikers and rollerbladers utilizing the same path as pedestrians in front of the restaurant.
- There are three existing windsurf launches, and sometimes surfers use Berkeley Yacht Club. Request to preserve existing areas and parking and have enhancements at Hs. Lordship's Restaurant.
- Bollards and trees make it difficult to move sails to the water. Make sure a clear path is created to get sails to the water.

Mitigation Design

The CEQA Guidelines, Environmental Checklist Form (Appendix G) was used for this IS to determine the environmental impacts of the project. The checklist includes a discussion section for each parameter with mitigation measures (labeled MM) defined when necessary to reduce impacts to less than significant levels. Where the project description and plans included sufficient methods to reduce project impacts to below significance, the box, "Less than Significant Impact" is checked. Only when additional mitigation measures not included in the project description and plans are required to reduce impacts, is the box corresponding with "Less Than Significant Impact with Mitigation Incorporation" checked.

The Marina Master Plan was approved by City Council on July 8, 2003 and outlines a number of mitigation measures for improvements within the Marina that will also be applicable to the Bay Trail Extension. These mitigation measures are incorporated into the Bay Trail Extension project description by reference. Approximately 0.5 miles of the Bay Trail Extension is located in an area within the Eastshore State Park General Plan jurisdiction. The Eastshore State Park General Plan and EIR were adopted and certified on December 6, 2002. Where applicable, the guidelines and

mitigation measures of this document are incorporated into the Bay Trail Extension project by description and reference.

Comments on Draft IS

The Draft Bay Trail Extension to the Berkeley Marina Design Plan and Initial Study/Mitigated Negative Declaration was available for public review from September 19, 2003, through October 22, 2003. A pubic hearing was also held on October 8, 2003 to solicit verbal comments on the draft document. Several comments on were received from state government agencies, special interest organizations, and the general public. A formal response to comments was prepared and revisions to the Draft IS were included in this Final IS.

4.1.3 OTHER PROJECTS IN THE BERKELEY MARINA

Two plans govern the area in which the Berkeley Bay Trail Extension extends: The Eastshore State Park General Plan and EIR, and the Berkeley Marina Master Plan and IS. A number of potential projects identified in the Berkeley Marina Master Plan or in the Eastshore State Park General Plan may, in time, occur along the Bay Trail Extension route. The Bay Trail Extension is defined as a stand-alone project that, while recognizing and accommodating these other potential shoreline or public access enhancements, is not dependent upon them. Before ground construction occurs, consultation with State Parks will occur to assure that activities between the City of Berkeley and State Parks are in congruence and not overlapping in purpose. Other projects include, but are not limited to:

- I-80 Bicycle/Pedestrian over-crossing Western Touchdown Plaza sponsored by the City of Berkeley.
- Shoreline enhancements within the Eastshore State Park that include but are not limited to: regraded and recontoured shorelines, constructed wetlands, or non-paved Park trails with benches/seating areas and picnic facilities along the bluff from Strawberry Creek to Marina Boulevard overlooking the South Sailing Basin
- Creation of a gateway feature for the State Park at University Avenue/Frontage Road intersection
- Improvements to the bulkhead or other boat facilities at the South Sailing Basin area
- Improvements to Adventure Playground
- Improvements to the lease holding of Hs. Lordship's Restaurant
- Development of windsurfing access facilities near Hs. Lordship's Restaurant
- Improvements to the Berkeley Fishing Pier

4.1.4 SUMMARY OF ENVIRONMENTAL EFFECTS

This section provides a summary of the environmental effects of the proposed project.

Less Than Significant Impacts

The project would have less than significant impacts on a number of topic areas.

The proposed project would have no impact on:

- Agricultural Resources

- Mineral Resources
- Population and Housing

The project would have less than significant impacts on:

- Recreation
- Utilities and Service Systems

Effects Less Than Significant With Mitigation

The proposed project would have the potential to cause significant effects. Mitigation measures are proposed to reduce the effects to less than significant levels. Below is a summary of potentially significant effects and the mitigation measures necessary to reduce these effects to less than significant levels.

Aesthetics

The proposed project would result in the removal of 98 trees greater than 6 inches in diameter at breast height (dbh). No such trees would be removed in the construction of Segment 1, which is under the jurisdiction of Eastshore State Park.

Mitigation would include submitting a tree removal and replacement design plan to the City for approval before the construction phase of the project. Irrigation and replacement tree maintenance will also be included in the plan.

Air Quality

Dust and exhaust emissions would be produced during the construction phase of the project. Effects on air quality would be short-term. Due to frequent high winds in the project area, these emissions could result in short-term impacts without mitigation.

Mitigation would include submitting a grading plan to the City of Berkeley that includes measures to reduce emissions from construction equipment and wind blown soil and incorporation of the recommendations of the BAAQCD to reduce air emissions.

Biological Resources

Burrowing owl (*Athene cunicularia hypugea*) has been observed at the project site. Construction activities could impact this California Species of Special Concern. Trees in the project area provide potential nesting habitat for white-tailed kites (*Elanus leucurus*) (a California Fully Protected Species), and other tree nesting raptors including Cooper's hawk (*Accipiter cooperii*) (a California Species of Special Concern), and red-shouldered hawk (*Buteo lineatus*). Removal of trees could impact these species. Impacts could also result from the removal and disposal of soil contaminated by perennial pepperweed (*Lepidium latifolium)*. Two small wetland areas and waters of the San Francisco Bay could be impacted by project activities.

Mitigation would include conducting surveys for burrowing owl, and placing a construction barrier around any occupied burrows to avoid impacts to burrowing owls. Conducting surveys for white-tailed kite, Cooper's hawk, red-tailed hawk, red-shouldered hawk, and other raptors, and placing a construction buffer around any identified individuals, or avoiding tree removal during breeding season would minimize impacts to sensitive bird species. Inspecting excavation areas by a qualified botanist for evidence of perennial pepperweed and disposing removed soil within the

project site or in a qualified landfill would minimize impacts caused by perennial pepperweed. Obtaining permits from the Army Corp of Engineers, the Regional Water Quality Control Board and the Bay Conservation and Development Commission would minimize impacts to wetlands and the Bay.

Cultural Resources

There is a small potential for disturbance to previously unidentified paleontological and archaeological resources by construction. Negative impacts to these resources could occur without appropriate mitigation.

Mitigation would include stopping construction if archeological or paleontological resources are found until a specialist can study the resource and recommend appropriate mitigation measures or procedures.

Geology and Soils

The project is located on an area subject to ground shaking, liquefaction, subsidence, expansive soils, settling, and lateral spreading. The project includes the construction of a pedestrian/bicycle bridge, which requires mitigation to be designed and built to withstand these hazards. Soil erosion and topsoil loss during construction could also have negative impacts to the shoreline and the wetland area of Strawberry Cove. Mitigation would be necessary to minimize impacts of erosion and top soil loss.

Mitigation would include design of the Strawberry Creek Bridge by a licensed engineer to conform to the seismic design standards of Caltrans and the Uniform Building Code, limiting earthmoving activities to dry periods of the year, and creation of a grading plan that will be submitted to the City of Berkeley for review. The grading plan would include measures to limit the size of areas disturbed, to water disturbed soils, to avoid long unbroken flow paths, to appropriately design drainage swales, and to route off-site drainage around newly disturbed areas. The grading plan would also include provisions to prevent sedimentation of waterways.

Hazards and Hazardous Materials

The soils in Strawberry Cove contain some chemicals of potential concern (COPC) due to previous landfill activities. Strawberry Cove also contains perennial pepperweed (*Lepidium latifolium*), which is believed to be toxic.

Mitigation would include inspecting excavation areas by a qualified botanist for evidence of perennial pepperweed and disposing removed soil within the project site or in a qualified landfill, controlling dust during excavation for bridge construction, and testing and properly disposing of excavated soils from project areas over the Berkeley Brickyard for petroleum hydrocarbons and metals, and coordinating with the California Department of Toxic Substance Control (CDTSC) to ensure proper clean-up and disposal of contaminated soils.

Hydrology and Water Quality

Parking facilities could introduce potential pollutants such as oil and grease affecting water quality unless measures are taken to reduce this risk. Increases in impervious surfaces could create additional sources of polluted run-off. During construction, drainage patterns could be affected.

Mitigation would include obtaining all necessary permits from the San Francisco Bay Regional Water Quality Control Board (RWQCB), preparing a Stormwater Pollution Prevention Plan (SWPPP), designing lots with

grease traps, meeting all requirements of the Alameda County Clean Water Program, and creating a grading plan that will be submitted to the City of Berkeley for review. The grading plan would include measures to minimize exhaust emissions from construction equipment and dust generated during construction and limit earthmoving activities to the dry periods of the year.

Land Use and Planning

Several land use plans, policies and regulations are applicable in the project area. Some policies would require approvals or permits for the proposed project. The project would have a significant impact if these permits or approvals were not secured.

Mitigation would include formalizing agreements between the City of Berkeley and the California Department of Parks and Recreation to allow the City to make improvements on State lands, secure permits from the San Francisco Bay Conservation and Development Commission, and consult with and secure permits or leases from the State Lands Commission.

Noise

The project would temporarily raise noise levels during construction. Mitigation would be necessary to reduce the effect of noise levels of construction equipment.

Mitigation would include incorporation of noise control equipment on construction equipment and shielding/shrouding of equipment, and placement of signs 500 feet from the site warning that pile drivers are being used.

Public Services

The project involves the removal of a roadway and redirection of traffic through parking lots. The project would not interfere with established emergency evacuation or response plans but would require mitigation for the design of the fire access ways through the parking lots.

Mitigation would include the design of fire access lanes to meet appropriate fire access standards for the City of Berkeley Planning Department and the guidelines of the Uniform Fire Code. Fire access routes would be clearly identified and recognizable, be at least 20 feet wide, have at least a 13’6’’ vertical clearance from trees, be suitable in all weather conditions, and constructed to support the weight of fire engines.

Transportation/Traffic

The project could increase hazards due to design features. The relocation of traffic from Seawall Drive through the parking lots could cause hazards to pedestrians and vehicles to be significant without mitigation. Fire access lanes would need to be designed with mitigation to ensure less than significant impacts to emergency access. Parking lots would be redesigned, which could impact parking in the area.

Mitigation would include limiting the allowed speed limit in parking lots to 15 miles per hour and posting signs indicating speed limits and warning of congested areas. Mitigation to reduce impacts to fire access would include the design of fire access lanes to meet appropriate fire access standards for the City of Berkeley Planning Department and the guidelines of the Uniform Fire Code.

4.2 Project Environmental Setting

This section of the Initial Study provides a description of existing conditions in the vicinity of the proposed project. The project will be located at the Berkeley Waterfront, in the Marina and through portions of Eastshore State Park. The project area begins at the I-80 pedestrian and bicycle over crossing and the Bay Trail and terminates at Berkeley Yacht Club in the Marina. Refer to Figure 1, for the Bay Trail Extension route alignment.

4.2.1 EXISTING FACILITIES

Bay Trail

The Bay Trail is a planned recreational corridor consisting of a 400-mile network of bicycling and hiking trails. When complete, the Bay Trail will connect the shoreline of all nine Bay Area counties, 47 cities, and cross the major toll bridges in the region. A little more than half of the Bay Trail's final length has been completed. Senate Bill 100, passed into law in 1987, directed the Association of Bay Area Governments (ABAG) to develop a plan for the trail, including a specific alignment. The Bay Trail Plan, adopted by ABAG in July 1989, includes a proposed alignment; a set of policies to guide the future selection, design and implementation of routes; and strategies for implementation and financing. The Bay Trail Plan has received considerable support throughout the Bay Area and the majority of jurisdictions along the alignment have incorporated the Bay Trail Plan into their general plans (ABAG 1999).

The Bay Trail provides easily accessible recreational opportunities for hikers, joggers, bicyclists and skaters. It also offers a setting for wildlife viewing and environmental education, increasing public respect and appreciation for the Bay. In certain areas, the Bay Trail has provided a commute alternative for cyclists and pedestrians by connecting to numerous public transportation facilities. The Bay Trail offers access to commercial, industrial and residential neighborhoods; points of historic, natural and cultural interest; recreational areas like beaches, marinas, fishing piers, boat launches, and over 130 parks and wildlife preserves totaling 57,000 acres of open space. It passes through highly urbanized areas like downtown San Francisco as well as remote natural areas like the San Francisco Bay National Wildlife Refuge.

Depending on the location of its segments, the Bay Trail consists of paved multi-use paths, dirt trails, bike lanes, and sidewalks or city streets signed as bike routes. The Bay Trail also connects to trails that lead inland, and with the Ridge Trail, another regional trail network (ABAG 1999).

Berkeley Marina

The Berkeley Marina includes all the property west of Marina Boulevard (Refer to Figure 5). The Marina area boundaries are as follows:

- West: the breakwater and fishing pier
- North: northern edge of Cesar Chavez Park
- South: Hs. Lordships Restaurant and the land/water area south of University Avenue
- East: the land/water area west of and adjacent to the North Sailing Basin and the Eastshore State Park property

The Berkeley Marina is one of the largest and oldest yacht harbors in the East Bay. Originally constructed in 1935, the Marina harbor encloses 52 acres of water and can berth over a thousand boats. There is a launch ramp, a boat yard, a fuel dock, facilities for small boat sailing, and launch

sites for windsurfing and paddlecraft. There are also sailing schools, non-profit sailing cooperatives, and a yacht club.

Berkeley is at the downwind end of the "fog stream" that pours in through the Golden Gate. Although dense fog usually dissipates before reaching Berkeley, the effect results in excellent air quality, and summer temperatures are seldom uncomfortably hot.

In addition to boat berthing and related services, the Berkeley Marina and associated parks offer a wide range of recreational and educational opportunities not directly related to boating. (Refer to Figure 5 for the general layout of the Berkeley Marina). Facilities within the Marina along the proposed Bay Trail Extension Route include:

- Shorebird Nature Center, offering tidepool ecology programs for youth and science teachers.
- The Berkeley Fishing Pier, for license-free fishing.
- Two restaurants.
- A market/cafe/deli
- Low-cost sailing and windsurfing opportunities at the Cal Sailing Club or Cal Adventures. Both organizations are open to the public. Cal Sailing Club conducts monthly Open House weekends, inviting the public out for a free introductory sail.
- Adventure Playground, a unique playground that offers drop-in daycare.
- The Berkeley Yacht Club, with an active schedule of races and cruises.

Eastshore State Park

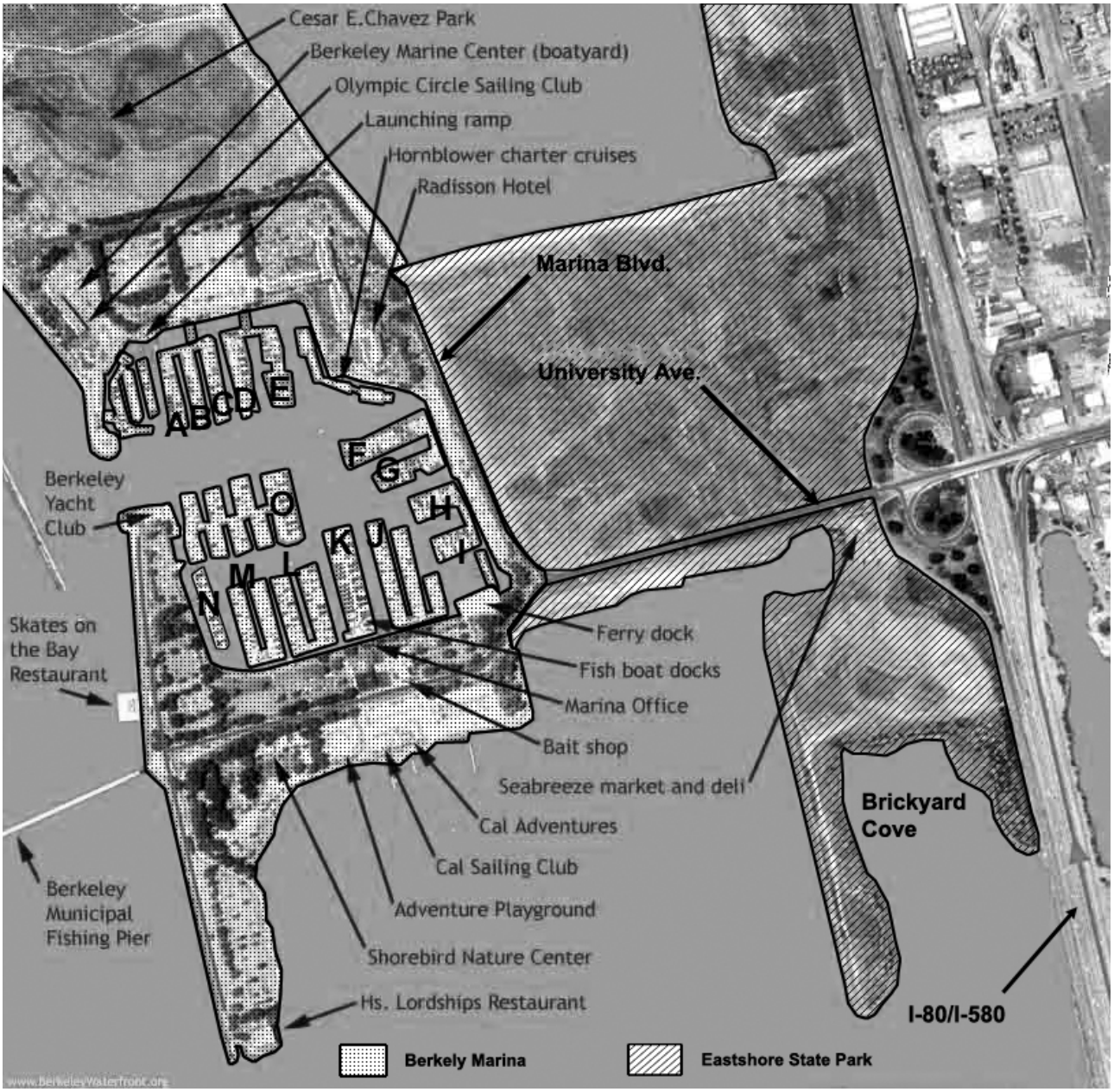
The Eastshore State Park is a work-in-progress through a partnership between the East Bay Regional Park District (EBRPD) and the State of California. It will include 1,817 acres of land and water along the shoreline between Emeryville and Richmond when completed, securing more than five miles of public access. The Park District is acting as agent for the State over the Eastshore State Park.

Approximately 0.5 miles of the Bay Trail Extension is located within the Eastshore State Park (Refer to Figure 5). Figure 2 shows the portion of the Eastshore State Park that the Bay Trail Extension will reach through. The eastern-most portion of the Bay Trail Extension, from the existing I-80 bicycle/pedestrian overcrossing to Strawberry Creek, is located with in the Berkeley Brickyard upland area of the Eastshore State Park. The remainder of the Trail portion that will extend through the Eastshore State Park will be along the University Avenue southern shoreline from Strawberry Creek to the point south of where Marina Boulevard and University Avenue meet.

The Brickyard is a large area of fill forming an arm that extends south into the Bay. The outer west face of the Brickyard is a semi-protected shoreline armored with concrete and asphalt construction debris. The eastern edge of the Brickyard’s shoreline consists almost entirely of bricks, which gives this area its distinctive name. The Brickyard protects an interior shoreline zone (Brickyard Cove) including a large mudflat and sand beach. The University Avenue southern shoreline from Strawberry Creek to the point south of where Marina Boulevard and University Avenue meet is a grassy field with no development.

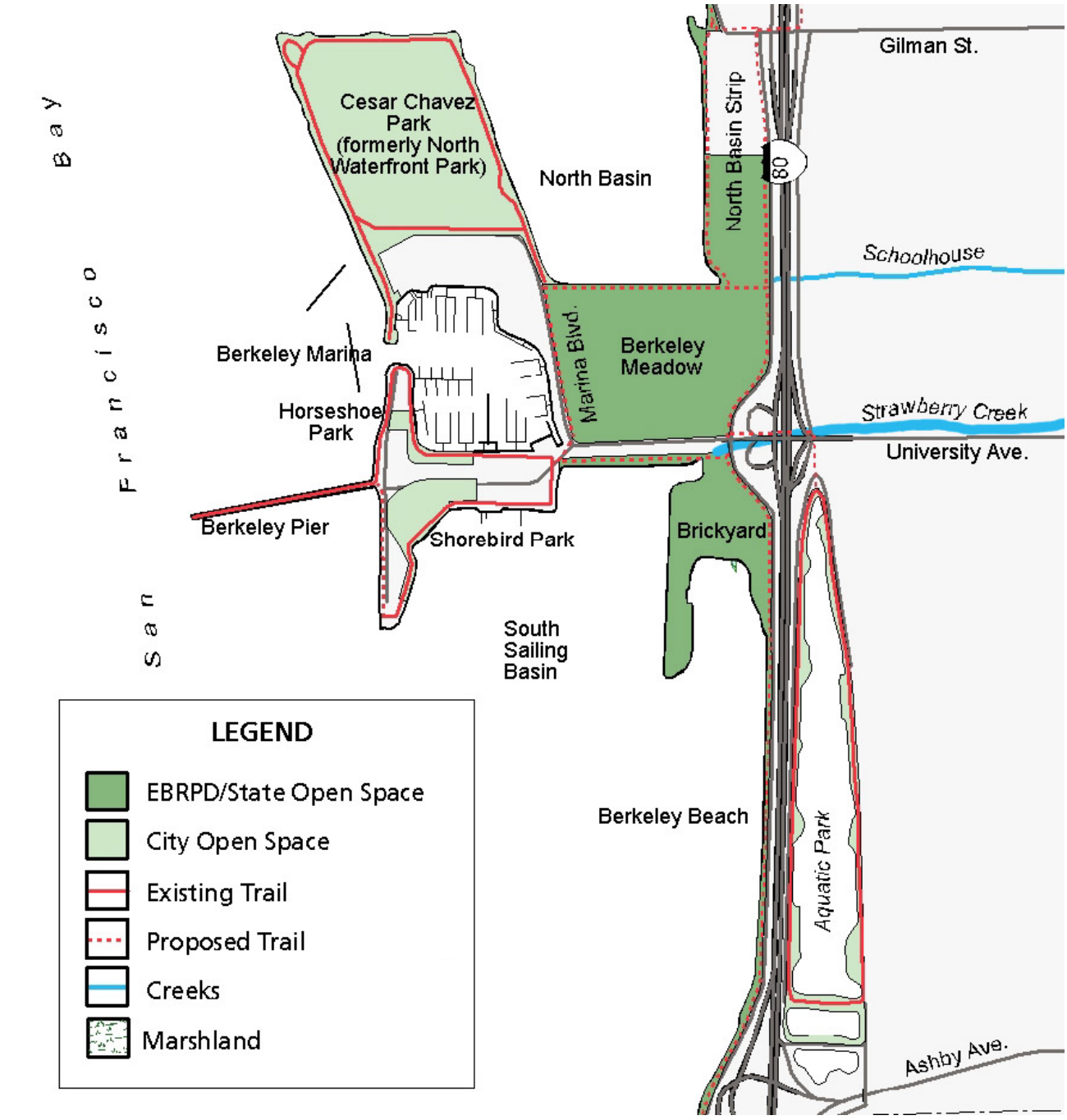
Figure 6 shows the portion of the Berkeley Waterfront that is under the City Open Space and the portion of the area that is under State Open Space, as well as areas where trail currently exists and where trail will be built.

Figure 5: Layout of the Berkeley Marina



SOURCE: Paul Kamen 2001, www.BerkeleyWaterfront.org

Figure 6: Berkeley Waterfront Land Divisions



SOURCE: www.eastshorestatepark.com, 2003.

4.2.2 LOCAL SETTING

Aesthetics

The project area's most significant visual resources are the panoramic views from the site. Bay views include a combination of water, sky, and distinctive natural and manmade features. These vistas include west-facing views of San Francisco Bay, including the Bay and Golden Gate Bridges, the cargo container cranes that line the waterfront of the Port of Oakland, and the buildings that form the skyline of San Francisco. East-facing views include panoramas of the East Bay Hills. The quality of views to the east benefits from the presence of Aquatic Park on the east side of the freeway that has prevented the development of industrial uses there. The project site provides numerous vantage points from which to experience the views.

The lack of upland area along the Berkeley Beach shoreline places the visual emphasis on the Bay and views to the west. Fore-and middle-ground views within the Berkeley Marina include associated structures such as:

- Hs. Lordships Restaurant
- Skates Restaurant
- The Sea Breeze Market Place
- The Nature Center
- Parking areas and Boat docks
- TREES AND SHORELINE AREAS,
- Lawns and fields
- Berkeley Pier

There is no significant marshland or habitat along the proposed trail route that constitutes a distinctive visual feature. Strawberry Cove does provide a small wetland habitat with distinctive vegetation along the shore. This area provides an opportunity to watch wildlife, such as foraging geese and other shore birds.

Due to proximity to University Avenue, a portion of the Berkeley Bay Trail Extension can be seen from the roadway.

Agricultural Resources

There are no agricultural lands in the immediate vicinity of the project. The proposed trail is surrounded by recreational areas (parks, marina), the San Francisco Bay, and the urban environment of the City of Berkeley. The project area was formed from landfill in the early 1900s and is not suitable for agricultural use.

Air Quality

The climate of the project vicinity, like much of the San Francisco Bay Area region, is generally semiarid and temperate. The San Francisco Bay Area climate is Mediterranean in character, with mild, rainy weather from November through April, and warm, dry weather from May through October. Average monthly temperatures in the project vicinity generally range from about 45°F in winter to 70°F in summer. The average annual precipitation in the vicinity of the proposed project is about 23 inches per year, but can range from about 13 inches to more than 36 inches.

The project area is subject to relatively strong winds, particularly in the afternoon. Under certain atmospheric conditions, dispersion of air pollution can be restricted. Rainy periods usually coincide with the rapid movement of pressure systems, causing increased horizontal movement, increased vertical mixing of air, and thus lower pollution levels; however, dry periods also occur during the winter, resulting in less ventilation, and the build up of pollutants. Elevated pollutant levels are also common during hot, sunny summer afternoons, when temperature inversions limit vertical mixing.

The closest air quality monitoring stations are located in Oakland (on Alice Street near Jack London Square) and in Fremont on Chapel Way. The Oakland monitoring station measures ozone (O_3) and carbon monoxide (CO). The Fremont-Chapel Way monitoring station monitors NO_2 and PM_{10} levels. Pollutant monitoring results for the years 1997 to 2001 at the Oakland and Fremont-Chapel Way stations indicate that air quality in the Richmond/Berkeley/Oakland area has generally been good.

Air quality concerns that do occur in Berkeley are more related to air contaminants for which there are no established safe standards. These contaminants include airborne carcinogens and nuisance sources, such as odors or dust. While the meteorology is generally favorable for minimizing air pollution, the Berkeley area is a source region for air quality problems in downwind communities. Air quality in the immediate project area is relatively good, since most of the air comes moving in from across the Bay.

Biological Resources

The analysis of biological resources at the project site is based on a site visit conducted by an LSA Associates, Inc. biologist on March 28, 2003, supplemented by information from the *California Natural Diversity Data Base* (CNDDB 2003) and relevant documents from prior studies. Relevant documents include the Biological Resources sections of the *Draft Environmental Impact Report* and the *Final Environmental Impact Report for the Eastshore Park Project General Plan* (City of Berkeley 2002) and the *Eastshore Park Project Resource Inventory* (Wallace *et al.* 2003), which contain studies of the portions of the project site that lie within Eastshore State Park (generally, the portion of the project area east of Marina Boulevard). These and additional sources are listed Section 4.3.18.

The project area is located along the San Francisco Bay shoreline. The main habitats within the project area are:

- Ruderal/non-native grassland
- Non-tidal seasonal wetlands
- Rocky intertidal
- Shallow subtidal
- Tidal flat
- Sandy beach
- Trees and shrubs
- Artificial habitat features (piers, pilings, paved surfaces, buildings, recreational structures, and a fishing pier)

The outfall for Strawberry Creek, which drains to San Francisco Bay, is also located within the project area and is considered a non-tidal seasonal wetland. The characteristics of these habitats, within the project site, are described below.

Ruderal/Non-native Grassland. Vegetation within the project area includes the grassy areas south of University Avenue between the roadway and the riprap, and the grassy areas near the existing pedestrian trail from the East Lawn west through Shorebird Park. These areas provide potential habitat for a variety of amphibians, reptiles, small mammals, and birds. The vegetation provides marginal foraging habitat for predatory birds, such as American kestrel, red-tailed hawk, northern harrier, white-tailed kite, and burrowing owl. This foraging habitat is limited in value by the narrowness of the grassland habitat corridor; its close proximity to commercial buildings, sidewalks, and parking lots; and the high level of human disturbance. California ground squirrel and/or Botta's pocket gopher burrows were observed in the non-native grasslands south of University Avenue, including the area near the Strawberry Creek outfall. They were also observed southeast of the East Lawn, between the existing path and the riprap; south and southwest of Adventure Playground, between the path and the riprap; and in the lawn on both sides of the path near the Nature Center and Shorebird Park. The burrowing owl, a special-status species, could winter or nest in the ground squirrel burrows in the project site. These burrows are situated within 20 feet from the existing paved path and are frequently disturbed by people and dogs. No burrowing owls were observed at these burrows during the March 28, 2003, site visit.

Non-Tidal Wetlands. Non-tidal wetlands identified in the project site consist of two small seasonal wetlands (each approximately 500 square feet in size) located in the non-native grassland between University Avenue and the rip-rapped shoreline, just west of the Strawberry Creek outfall. These wetlands were identified during jurisdictional wetland delineation by LSA (2003), which has not yet been verified by the U.S. Army Corps of Engineers. The lack of upland area along the Berkeley Beach shoreline places the visual emphasis on the Bay and views to the west. Fore-and middle-ground views within the Berkeley Marina include associated structures such as:

- Hs. Lordships Restaurant
- Skates Restaurant
- The Sea Breeze Market Place
- The Nature Center
- Parking areas and Boat docks

During the winter and early spring, these seasonal wetlands provide drinking water to birds, raccoons, and other mammals, but they are too small to provide much foraging habitat. The only other aquatic habitats in the project area are shoreline habitats of San Francisco Bay (described below).

Rocky Tidal Zone. The rocky intertidal zone is a shoreline zone that is inundated at high tide, but exposed at low tide. Rocky intertidal habitat occurs along a large portion of the shoreline of the project site and is composed mostly of riprap. No naturally occurring rocky shoreline is present in the project site. The predominant plant species within the rocky intertidal habitat are macro-algae ("seaweeds") such as green algae and red algae. The riprap, pebbles, cobbles, and miscellaneous debris also provide substrate and refuges for marine invertebrate species. Birds prey on rocky intertidal invertebrates at low tide, while near shore fish prey on these species at high tide. Mussels and barnacles were observed in the rocky intertidal zone and western gulls were observed foraging among the cobbles and pebbles. Within the project site west of Seawall Drive and east of the Hs. Lordships parking lot, several California ground squirrels were observed in the riprap near the entrances to their burrows. Burrowing owls could also winter, or possibly nest, in the rap-rap and adjacent ground squirrel burrows.

Tidal Flat. A tidal flat (also called a mudflat) occurs in the small embayment near the Strawberry Creek outfall. Vegetation on tidal flats is usually limited to seasonal blooms of microscopic algae and scattered patches of green macro-algae. Invertebrates include annelid worms, bivalves, tube-dwelling crustaceans, shrimp, crabs, and gastropods. At low tides, small concentrations of shorebirds, gulls, and wading birds forage on this tidal flat for worms, crustaceans, and bivalves. During high tides, when the muddy substrate is submerged, birds such as grebes, cormorants, and terns (including the endangered California least tern) feed on near shore fish. Ducks and geese feed on the vegetation and small invertebrates of the tidal flats.

Shallow Subtidal Zone. The shallow subtidal zone is seaward of the intertidal zone and is continually submerged. Although the subtidal plant community is limited, this habitat harbors a diversity of animal species. The shallow subtidal zone at the site supports many of the same species of invertebrates, fish, and water birds, as does the tidal flat. Most shorebirds and wading birds, however, do not use the deeper water of the subtidal zone. Marine mammals, primarily harbor seal and California sea lion, may also occur occasionally in the shallow subtidal zone at the site.

Sandy Beach. A small sandy beach is within the project area, west of the Sea Breeze Market and east of the Strawberry Creek outfall. Invertebrates, crustaceans, birds, reptiles, and mammals may be present. The habitat value of this beach is greatly reduced by the perennial pepperweed (*Lepidium latifolium*) and other non-native plants that cover much of the beach.

Trees and Shrubs. Trees and shrubs are scattered throughout much of the project site, mostly west of Marina Boulevard, and provide perch- and nest-sites for a variety of birds. The most common species of trees and shrubs within the project site and vicinity are Monterey pine, cypress, eucalyptus, pittosporum, broom, ceanothus, and coyote brush. Raptors such as white-tailed kite, red-tailed hawk, red-shouldered hawk, and Cooper's hawk could nest in the taller trees. The likelihood of raptor nesting is greatly reduced, however, by the high level of human disturbance at the site. No raptors, raptor nests, or potential raptor nests were observed during the March 28, 2003 site visit.

Artificial Habitat Features. Artificial habitat features in the vicinity of the project site include abandoned piers, pilings, paved surfaces, buildings, and recreational structures. Abandoned piers and pilings provide perching habitat for water birds and shorebirds, substrate for algae and invertebrates, and habitat for fish. Other artificial habitat features within the project site include the existing pedestrian path, parking lots at the Sea Breeze Market and Hs. Lordships, concrete slabs and rubble near the Sea Breeze Market parking lot, parking spaces along Seawall Drive, buildings (e.g., Sea Breeze Market, Hs. Lordships, Skate's, California Sailing Club, and Berkeley Yacht Club), and park and recreation structures (e.g., benches and playgrounds). Concrete slabs and rubble may provide cover for ground squirrels, other small mammals, burrowing owls, and reptiles. California ground squirrels were observed burrowing beneath the existing paved sidewalk near Shorebird Park, and gulls were observed perching on some of the buildings and artificial structures.

Sensitive Species. The project area consists of mostly disturbed and developed upland areas with marginal habitat value for wildlife. No native wildlife nursery sites are known or likely to occur at the site. There is some habitat for burrowing owls (*Athene cunicularia hypugea*). The owl is designated as a California Species of Special Concern, but is not state or federally listed as endangered or threatened. Within the project site, wintering burrowing owls have been observed in the shoreline area south of University Avenue, west of the Strawberry Creek outfall. Suitable nesting and roosting sites for burrowing owls at the project site include ground squirrel burrows, rip-rap, and concrete rubble piles. On March 28, 2003, an LSA biologist searched for burrowing

owls within suitable habitat at the site, but no burrowing owls or owl signs (e.g., pellets, white-wash, feathers, prey remains) were observed.

The trees in the project area provide potential nesting habitat for white-tailed kites (*Elanus leucurus*) (a California Fully Protected Species), and other tree-nesting raptors such as Cooper's hawk (*Accipiter cooperii*) (a California Species of Special Concern), red-tailed hawk (*Buteo jamaicensis*), and red-shouldered hawk (*Buteo lineatus*). A pair of white-tailed kites was recorded as nesting in a tree on the north side of the Marina in 1994.

No migratory fish are likely to move through the site. Steelhead trout (*Oncorhynchus mykiss*), an anadromous (migratory) fish species that is federally listed as endangered, is absent from Strawberry Creek.

Cultural Resources

Native American Use. The project area is entirely on landfill. Native Americans did not use this area as it was a part of the Bay until filling began after the 1850s. The original shoreline was approximately 1,000 feet east of the extant shoreline. The original shoreline was home to the Costanoan Indians, the native people of this region. The Costanoans inhabited this land for 4,000 years until the 1700s. During this time Spanish explorers and missionaries began to arrive and eventually either removed or forced the Costaoans out of the area. Shellmounds have previously been identified east of the current waterfront along the original shoreline. However, over time, these mounds were destroyed by the construction of buildings and roads in what is now West Berkeley (Moratto 1984).

Prehistoric and Historic Resources. According to a records search conducted by the California Archaeological Inventory's Northwest Information Center, approximately 50% of the Berkeley waterfront has been field surveyed for archaeological resources. There are no recorded prehistoric or historical archaeological sites on the Berkeley waterfront that are listed in the National Register of Historic Places or in the California Inventory of Historic Places. Based on the location of the original shoreline, and the fact that the waterfront is composed of artificial fill, the site is classified as having low archaeological sensitivity (City of Berkeley Planning Department 1986).

No historical archaeological sites are recorded within the Eastshore State Park, nor were any sites identified in the Eastshore Park Project Resource Inventory (Resource Inventory), which was used for the Eastshore Park Project General Plan 2003 Environmental Impact Report. However, municipal refuse deposits, which are more than 50 years old and have been used as fill along the shoreline, could constitute significant archaeological resources (LSA 2002). The Resource Inventory indicated that Eastshore Park is in the proximity of known and recorded prehistoric sites, and the Eastshore Park is thus likely to contain additional undocumented prehistoric cultural resources. Areas where creeks historically flowed into the Bay are particularly sensitive. The proposed trail extension would cross the Strawberry Creek outlet, although in an area composed of artificial fill, which was once submerged.

Standing Structures and Features. Segment 1 of the Bay Trail Extension alignment is within a portion of the Eastshore State Park. There are no standing structures or features of cultural significance in this portion of the Eastshore State Park. Segments 2-5 are within the Berkeley Marina. There is one standing structure of cultural significance within the Marina, which is the Municipal Pier. Other structures do exist in the Marina; however, these structures were built more recently and not considered culturally significant. The pier was originally 3.5 miles long and was built in 1929 to provide vehicular and passenger ferry service to San Francisco. It was used for this purpose until 1939 when the Bay Bridge opened. The pier was then converted for recreational uses. Today, the first mile of the Pier serves as a public fishing pier and promenade. A fishing

license is not required. The remaining 2.5 miles portion of the pier is unused and the decaying parts are still visible.

Wild Art. A northern East Bay waterfront tradition involves the building and depositing of impromptu "art" installations along the shoreline. This "plop art" or "wild art" has been a part of the waterfront scene since at least the late 1960s, and is manifested in a variety of forms throughout the project area. During recent years, State and local agencies have removed many "wild art" objects from the Emeryville Crescent, in the interest of protecting environmental values and maintaining the public's health, safety and welfare. "Wild art" objects visible in the vicinity of the project area include a snoopy dog on one of the pilings in the Marina, a metal sculpture in front of the Marina Administration Building, and a sentinel sculpture at the foot of University Avenue across from the fishing pier. Cesar Chavez Park also contains some "plop art" work, although these installations are not within the proposed project area (Marchetti personal comm. 2003).

Geology and Soils

Soils. The project site is located along the east shore of San Francisco Bay, extending from the Eastshore State Park, out along the human-constructed peninsula that anchors and protects the Berkeley Marina and the South Sailing Basin. The historic shoreline east of the project area consists of alluvial fan deposits of the Temescal Formation, comprising interfingering lenses of clayey gravel, sandy silty clay and sand-clay-silt mixtures (Radbruch 1957). Section 1 of the proposed trail site is comprised primarily of artificial fill placed to the west of the historic shoreline. The deposition of artificial fill has extended the shoreline by as much as 1,000 feet into the Bay from its original (1850s) location (Turner 1983). Soft, compressible, young Bay Mud of variable thickness underlies the artificial fill. Bay Mud generally consists of clayey, sandy silt with shells and other organic material and lenses of fine sand (Radbruch 1957). The Marina is also built on landfill. Over the years, settlement has occurred and will continue due to compaction of underlying unconsolidated Bay Mud.

A report prepared by 3E Engineering for the Cesar Chavez Park area (3E Engineering 1989) indicates that the young Bay Mud is underlain by remnants of the Pleistocene to Recent Merritt Sand, which is reported to be up to 30 feet thick. The Merritt Sand is a silty, clayey fine-grained sand with lenses of sandy clay and clay. The Bay Mud and Merritt Sand are underlain by the Pleistocene Alameda Formation that includes several hundred feet of sediment underlying the Bay and Bay shore plain. The Pleistocene Alameda Formation consists of continental and marine gravels, sands, silts, and clays, with some shells and organic materials. The Pleistocene Alameda Formation is underlain by Mesozoic Franciscan Assemblage bedrock consisting of fractured and sheared arkosic to greywacke sandstone with some shells.

Seismicity. Within the project area, there is no evidence to indicate recent fault movement, no historic record of surface faulting, and no known active faults; however, this area is periodically subjected to moderate to severe ground shaking as a result of seismic events on nearby active faults (City of Berkeley 2002).

The Disaster Preparedness and Safety Element of the 2002 Berkeley General Plan states,

> *"Earthquake-induced ground failure includes liquefaction, settlement, fault rupture, lateral spreading, and landslides. Liquefaction is the loss of soil strength due to shaking on water-saturated granular soils. The potential for liquefaction in Berkeley exists primarily to the west of the railroad tracks in low-lying areas adjacent to San Francisco Bay. Settlement is the vertical consolidation of loose soils and alluvium caused by ground shaking or liquefaction. The ground surface can range from a drop of a few inches to several feet, and may occur many miles from the epicenter. Along the Berkeley waterfront the potential for settlement exists due to underlying weak bay mud fill typical of the area. Lateral spreading is the*

horizontal movement or spreading of soil toward an open face such as a stream bank or the open sides of fill embankments. In Berkeley, locations most likely to be affected are areas with improperly engineered fill; steep, unstable banks; and areas near the waterfront underlain by soft bay mud soil deposits. In a major earthquake, Berkeley can expect lurch cracking to result in extensive rippling and fracturing of pavement and curbs, and damage to sewer, gas, and water lines. Seismic activity can also trigger landslides, primarily in the hill areas, which can result in significant property damage, injury, and loss of life."

The project site lies approximately 2.5 miles west of the Hayward Fault and 16 miles east of the San Andreas Fault (City of Berkeley 1986). Within the next 30 years, the Hayward Fault has a 32% chance of causing an earthquake of 6.7 or greater on the Richter scale. The San Andreas runs a 21% chance of causing an earthquake of the same magnitude or greater within the next 30 years (Berkeley General Plan 2002).

Erosion. Erosion throughout most of the project site is not a considerable issue, as most of the shoreline is protected by riprap. One area of the project site is monitored for erosion. A 1-day annual monitoring of the Berkeley Brickyard is conducted on behalf of EBRPD and includes site inspections of surface conditions and shoreline erosion. Results of the most recent inspection concluded that no issues of environmental concern were identified for this site and that the shoreline riprap condition was unchanged from the previous inspection (Olson personal comm. 2003).

Hazards and Hazardous Materials

Most of the land along the project area shoreline is comprised of varying amounts of fill material overlying bay mud. Before filling was started in the late 1800s to the early 1900s, the original shoreline was a few hundred feet east of Interstate 80 (I-80). The project area includes various landfills that have been sealed and graded to permit development. Waterfront sites are comprised of either (1) partly incinerated refuse consisting of brick, glass, metal, and organic material or (2) rubble consisting of a mixture of brick, concrete and clay soil. Hazardous materials have historically been used, stored, and disposed of at the in the project vicinity and are known to be present in areas of surface and subsurface soils as a result of historical filling activities.

A 0.5-mile stretch of Segment 1-1 and 1-2, as shown on Drawing Sheet 1, of the proposed trail extension is located in the Berkeley Brickyard portion of the Eastshore State Park. In 1998, under the terms of the March 1997 land transfer agreement between Catellus Development Corporation (Catellus), the East Bay Regional Park District (EBRPD), and the California Department of Parks and Recreation (State Parks), the Regional Water Quality Control Board (RWQCB) issued Order No. 98-072 adopting Site Cleanup Requirements for portions of the Eastshore State Park, including the Berkeley Brickyard (Order No. 98-072) states that sediment, soil, and groundwater at the listed sites were adequately investigated. In the Berkeley Brickyard area the chemicals of potential concern (COPCs) in soil and groundwater identified during site assessment activities included lead, zinc, arsenic, chromium, total recoverable petroleum hydrocarbons (TRPH), benzene, total petroleum hydrocarbons as diesel (TPHd), and total petroleum hydrocarbons as gasoline (TPHg). COPCs in soil gas samples include methane, methylene chloride, chloroform, vinyl chloride, benzene, toluene, tetrachloroethylene (PCE), trichloroethylene (TCE), and 1,1,1-trichloroethane (1,1,1-TCA). No remediation was required for the Berkeley Brickyard site in 1998. No additional inspections for hazardous materials have been conducted (Olson personal comm. 2003).

Aboveground hazardous materials are limited to oil and fuel wastes associated with the Marina berths. Waste storage tanks are located at the pump-out stations at the end of I-dock and the fuel dock (Refer to Figure 5 for location of docks), which are not in the immediate vicinity of the

proposed Berkeley Marina Trail Extension. A waste container for used oil is located at the Corporate Yard adjacent to the Marina Office on the opposite side of University Avenue from the California Sailing Club and California Adventures.

In Strawberry Cove, some perennial pepperweed (*Lepidium latifolium*) has been found and is periodically collected. Pepperweed is an invasive species that is considered toxic to certain farm animals.

Hydrology and Water Quality

Shoreline. The Berkeley Bay Trail Extension will pass through two jurisdictions, the Eastshore State Park and the Berkeley Marina (Refer to Figure 5). The Berkeley Brickyard is within the Eastshore State Park. The Brickyard is a large area of fill forming an arm that extends south into the Bay. The outer west face of the Brickyard is a semi-protected shoreline armored with concrete and asphalt construction debris. The eastern edge of the Brickyard's shoreline consists almost entirely of bricks, which gives this area its distinctive name. The Brickyard protects an interior shoreline zone (Brickyard Cove) including a large mudflat and sand beach. The Brickyard Cove is protected from significant wave action. The shoreline south of University Avenue to the point south of where University Avenue meets Marina Boulevard is also part of the Eastshore State Park. No existing trails flank this shoreline, which is also known as the South Sailing Basin. This shore is protected by riprap.

Segments 2 to 5 and part of Segment 1 (Refer to Figure 3 and Drawing Sheets 2-6) of the of the proposed trail extension would be located immediately west of the Eastshore Park, in the Berkeley Marina area. The area from Shorebird Park to Hs. Lordship's Restaurant is the only beachfront area at the Marina; the remaining shoreline areas are covered with riprap.

Creeks and Channels. The project area is located within the Strawberry Creek Watershed. The mouth of Strawberry Creek falls within the project area (refer to Figure 5). There are no named tributaries to Strawberry Creek (Oakland Museum of California 2003). Strawberry Creek flows through a 7-foot by 8-foot reinforced concrete culvert underneath University Avenue, that empties into a marshy cove that then extends into the Bay just south of University Avenue. Gravel and mudflats that are exposed in lower tides characterize the cove. Historically, Strawberry Creek was bordered by a riparian corridor and emptied into the Bay through a willow grove and a tidal marsh. The tidal marsh extended to what is now 3rd Street and the willow grove extended to 8th Street. In the past, water quality has been a significant issue associated with Strawberry Creek. Like many urban creeks, Strawberry Creek drains large residential, commercial, and industrial areas, which can be sources of pollutants. Recent efforts by the University of California and the City of Berkeley have resulted in improved water quality throughout the watershed.

Stormwater Drainage. The portion of the Bay Trail Extension that will be constructed through the Eastshore State Park has no storm drainage system currently in place. Developed areas within the vicinity of the Berkeley Marina, including Horseshoe Park and Shorebird Park, have their own local drainage systems and catch basins that flow directly into the Bay.

Water Quality. The *1993 City of Berkeley Conditions, Trends and Issues Report* states that poor water quality along the Berkeley Shoreline threatens wildlife habitat and limits recreational opportunities. Although the Bay's overall water quality has shown improvement over the past few years, treated sewage effluent, industrial waste, chronic petroleum refinery and tanker leaks, non-point source pollution conveyed through storm drain systems, and reduced fresh water flows from the Delta continue to degrade water quality.

Currently, there is no water quality-monitoring program for the project area. Sewer backups and overflows have occurred resulting in sewage effluent occasionally draining into the Bay. Small

amounts of fuel spillage have occurred over time from boating activities. Pollution in runoff from Marina parking lots has been reduced due to the use of grease traps installed in storm drains and the placement of lawns that separate parking lots from the bay and filter runoff.

Land use

Marina. The City of Berkeley Waterfront Specific Plan, Eastshore State Park General Plan, and the City of Berkeley General Plan provide goals and policies governing uses within the project area. A Marina Master Plan was approved by City Council on July 8, 2003. The Marina is owned by the State of California and held in trust for the State by the City of Berkeley. The Marina includes 255 acres, including 110 acres covered by water. The City of Berkeley General Plan Land Use designation is Waterfront/Marina and the zoning classification is Unclassified District. The Marina area includes a mix of public park areas and waterfront-related commercial ventures.

Goals for the Waterfront are included in the Draft Marina Master Plan and include:

- Goal 1: Establish the waterfront as an area primarily for recreational, open space, and environmental uses, with preservation and enhancement of beaches, marshes, and other natural habitats.
- Goal 2: Develop the waterfront as part of a continuous east bay shoreline open space system.
- Goal 3: Provide for an appropriate amount and type of private development, to make the waterfront part of Berkeley's vibrant urban community, attractive to and usable by Berkeleyans, neighboring bay area residents and other visitors.
- Goal 4: In all types of development, meet the needs of the unemployed and underemployed Berkeley residents, in both construction and permanent jobs.
- Goal 5: Establish uses and activities that reflect and enhance the unique character of the waterfront and foster the community's relationship with the shoreline.

Eastshore State Park. Approximately 0.5 miles of the Bay Trail Extension is located within the Eastshore State Park, which is a partnership between the East Bay Regional Park District and the State of California Department of Parks and Recreation. The Eastshore State Park is classified as State Seashore. The Bay Trail Extension passes through two Management Zone Designations according to the Eastshore State Park General Plan. The eastern-most portion is located within the Brickyard Upland area of the State Park. Management of the Brickyard Upland is designated as a Recreation Area, which can accommodate more intensive recreation because the area has limited habitat value and is of sufficient size to accommodate parking, utilities and the infrastructure to support recreational use.

The University Avenue Shoreline from Strawberry Creek to the western boundary of the State Park is designated Conservation Area. Conservation areas are areas whose natural habitat value would be protected and enhanced while accommodating lower intensity recreation compatible with and dependent on those values.

Mineral Resources

There are no known mineral resources in the project vicinity. The project area is located on a site formed from a landfill that was operated in the early and mid 1900s.

Noise

Fundamentals of Noise. Sound is a pressure wave transmitted through the air. It is described in terms of loudness or amplitude (measured in decibels), frequency or pitch (measured in Hertz [Hz] or cycles per second), and duration (measured in minutes or hours). The standard unit of measurement for sound intensity is the decibel (dB), with 0 dB corresponding roughly to the threshold of hearing. (National Academy of Science 1977).

Typical human hearing can detect changes in sound levels of approximately 3 dB under normal conditions. However, the human ear is not equally sensitive to all frequencies. Sound waves below 16 Hz are not heard at all and are "felt" more as a vibration. Similarly, while people with extremely sensitive hearing can hear sounds as high as 20,000 Hz, most people cannot hear above 15,000 Hz. In all cases, hearing acuity falls off rapidly above approximately 10,000 Hz and below approximately 200 Hz.

Noise is defined as unwanted sound and is known to have several adverse effects on people, including hearing loss, speech and sleep interference, physiological responses, and annoyance. Based on these known adverse effects of noise, the federal government, the State of California, and many local governments have established maximum allowed noise levels to protect public health and safety and to prevent disruption of certain activities.

Various noise measurements are used to assess the level and the annoyance potential of community noise such as that generated by aircraft activity and arterial traffic.

- **A-Weighted Sound Level (dBA).** The A-weighted sound pressure level is commonly abbreviated dBA. The dB refers to a measurement in decibels. The "A" identifies a particular setting of the measurement instrument, the sound level meter. The A-weighted sound level provides a scale with the range and characteristics most consistent with human hearing ability. The dBA measures sound over a period of time, typically 1 hour, to identify the minimum and maximum levels and the statistical variation of fluctuating sounds.

- **Continuous Equivalent (Average) Noise Level (L_{eq}).** The continuous equivalent (average) noise level is an energy equivalent level of fluctuating noise for a measured time period. Data from this measurement are applied to the 24-hour measurement of noise.

- **Community Noise Equivalent Level (CNEL) or Day-Night Sound Level (L_{dn}).** A given level of noise may be more or less tolerable depending on the time of day and duration of exposure experienced by an individual. The U.S. Department of Housing and Urban Development (HUD) and the Environmental Protection Agency (EPA) have adopted the L_{dn} as their standard unit of measurement for noise levels. This measure increases the average noise level (L_{eq}) for late evening and early morning hours (10:00 p.m. to 7:00 a.m.) by 10 dBA. The daytime noise levels (7:01 a.m. to 9:59 p.m.) are then combined with these weighted levels and are averaged to obtain a 24-hour averaged noise level. The State of California CNEL, which weights noise events in the late evening through early morning, as well as noise events occurring between 7:00 p.m. and 10:00 p.m. (increasing them by 5 dBA), is also widely used by jurisdictions concerned with noise.

Noise levels that are less than 40 dB CNEL/L_{dn} are not considered significant. This threshold is commonly used to assess noise impacts in environmental impact documents (National Academy of Science 1977). In addition, generally established regulatory standards throughout California do not typically address noise levels that are less than 40 dBA. However, even low levels of noise can be annoying to people when concurrent background noise is very low.

Existing Noise Levels. The Berkeley Marina is in an unclassified zone and the Berkeley Municipal Code Section 13.40, does not specify a noise limit for the area. The ambient noise level at the project site varies, but can be relatively high due to the nearby highway and high winds coming off the Bay.

Most of the existing noise within the project area is generated from Interstates 80 and 580 (I-80 and I-580). I-80 and I-580 are located just east of the project area. Table 5 identifies the distances to the CNEL contour lines from the centerline of the roadway for Interstate segments within 1.5 miles from the project site. Traffic noise along I-580/I-80 is relatively loud, with the 70 dBA CNEL extending 363 to 763 feet from the centerline. The 65 dBA CNEL extends 779 to 1,642 feet from the freeway centerline. The 60 dBA CNEL extends 1,677 to 3,537 feet from the freeway centerline. The 55 dBA CNEL extends to 3,611 to 7,618 feet from the freeway centerline.

The project area starts at the ramp of the I-80 over-crossing and extends 0.8 mile (4,224 feet) to the west. Freeway-induced noise levels range from roughly 83 dBA CNEL at the east most segment to 55 dBA CNEL to the west most segment. CNEL distances were calculated without consideration of sound walls or other manmade or natural barriers. These noise estimates qualify as a worst-case scenario.

Other noise sources within the project site are traffic along University Avenue west of I-80/I-580, vending, traffic in the Marina, and recreation activities, including berthing. Noise produced by these activities is negligible compared to noise generated from I-80 and I-580.

Population and Housing

There is no housing in the immediate vicinity of the project. The City of Berkeley is estimated to have a population of 104,600 (California Department of Finance 2003) individuals and 46,000 housing units (City of Berkeley General Plan 2002).

Public Services

Fire Protection. The Berkeley Fire Department serves a population of 104,600 citizens living within the 10.46 square mile City of Berkeley. The 142 members of the department staff 7 fire stations, 7 engines, 2 fire trucks, 3 ambulances, an assortment of specialized equipment (including a hazardous materials vehicle), and administrative positions. Each ambulance is staffed with 2 paramedics; each engine and truck is staffed with 3 firefighters. Fire station locations are as follows:

- Station 1 - 2442 Eighth Street
- Station 2 - 2029 Berkeley Way
- Station 3 - 2710 Russell Street
- Station 4 - 1900 Marin Avenue
- Station 5 - 2680 Shattuck Avenue
- Station 6 - 999 Cedar Street
- Station 7 - 2931 Shasta Avenue

The Berkeley Marina is not within a designated fire hazard area. Refer to Figure 7 for a map of Berkeley public service facilities and emergency access routes.

Table 5: Noise Levels Along Interstates 80 and 580

Freeway Segment	Average Daily Traffic	Roadway Centerline Distance to CNEL (feet) 70 dBA	65 dBA	60 dBA	CNEL 50 Feet From Outermost Lane Centerline (dBA)
I-80/I-580 Ashby Avenue to University Avenue	253,000	682	1,465	3,154	83.3
I-80/I-580 University Avenue to Gilman Street	251,000	678	1,457	3,137	83.2

SOURCE: LSA 2002

Police Protection. The City of Berkeley Police Department provides police protection. The patrol division includes seven uniformed Patrol Teams, Bicycle Patrol, Special Enforcement Unit, Community Services Bureau (CSB), and the Police Reserves. The Berkeley Marina has a moderate to high crime rate with arrests predominantly for public drunkenness, driving under theinfluence (DUI), robbery, drug sales, and stolen autos. The Berkeley Marina falls into a larger crime statistics area that covers the western portion of Berkeley from a few blocks east of I-80.

This area accounts for 1.85% o f the City's population, but 10.8% of its major crime (Berkeley Police Department 2003).

Schools. The Berkeley Unified School District is comprised of 12 elementary school facilities, 3 middle schools, and one high school. Secondary educational facilities within Berkeley include Vista Community College, the Graduate Theological Union, and University of California at Berkeley.

Recreation

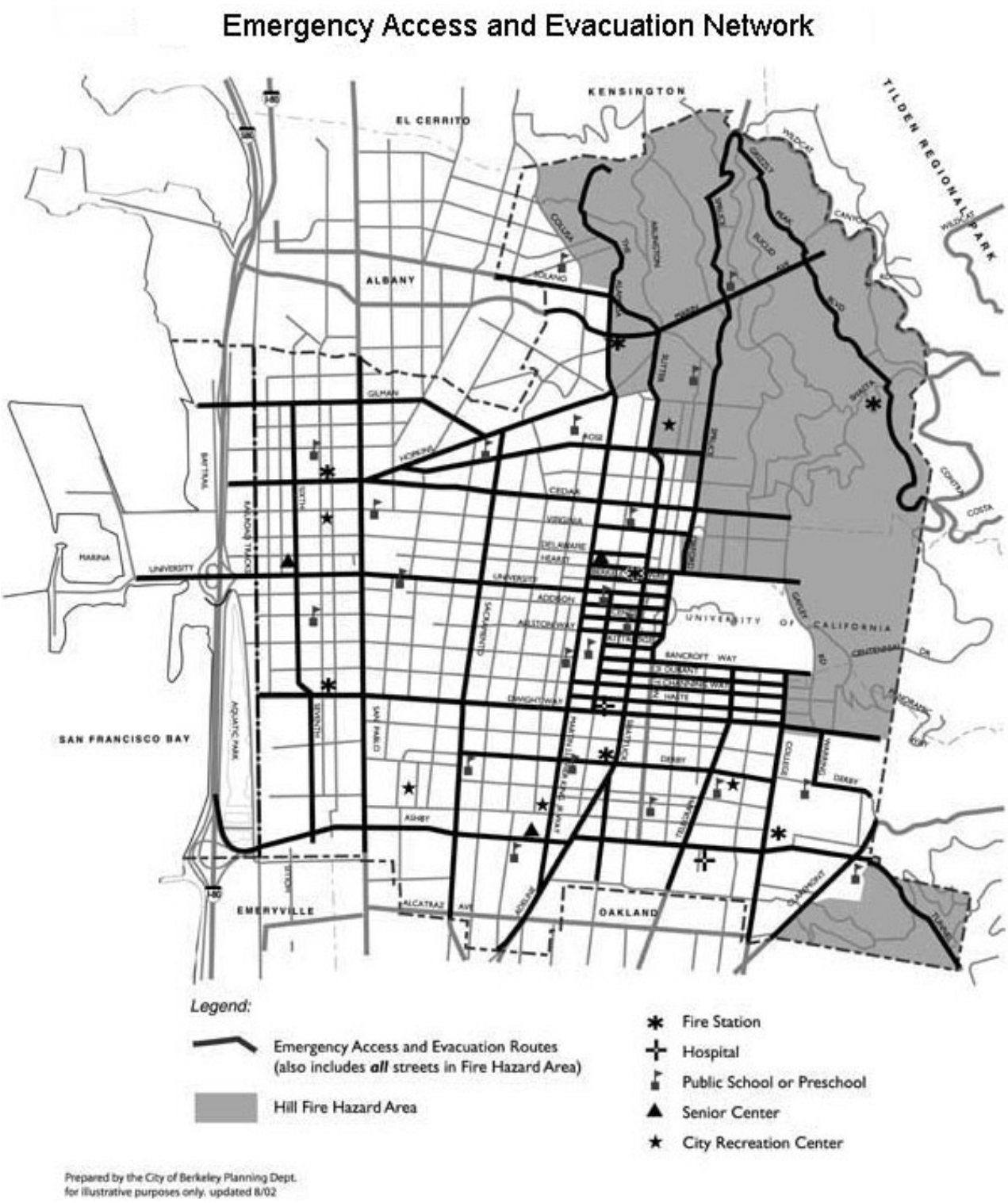
Brickyard Cove. The majority of Segment 1 of the proposed trail extension would be located in Brickyard Cove (Refer to Figure 6). The Brickyard Cove area consists of an upland area of approximately 40 acres near the University Avenue/West Frontage Road intersection, a narrow spit of land that extends to the south creating the sheltered Brickyard Cove, and the beach and cove itself. The spit and beach areas are undeveloped, and used for passive recreation (e.g., walking and bird watching). There is also a produce market and café facility on the southwest corner of University Avenue and West Frontage Road. Picnic tables provide outdoor seating in the front of the market.

To facilitate access to the waterfront area, the City of Berkeley constructed a pedestrian and bicycle overcrossing of I-80/I-580 from Aquatic Park that touches down on the east edge of the brickyard area. The bridge opened in February 2002.

Berkeley Marina. Segments 2 to 5 and a portion of Segment 1 of the proposed trail extension would be located in the city-owned Berkeley Marina area. Recreational Facilities in the Marina that the proposed project would connect include picnic areas of the East Lawn and Southside Marina, California Adventures, California Sailing Club, Adventure Playground, the Nature Center, Shorebird Park, Hs. Lordships, the Berkeley Fishing Pier, Skates Restaurant, and the Berkeley Yacht Club. Recreational activities supported by these facilities include, but are not limited to: windsurfing, sailing, kayaking, and picnicking. Hs. Lordships and Skates are restaurant venues.

Pedestrian and Bicycle Paths. In the Marina, a perimeter pathway runs north-south along Seawall Drive from the Yacht Club to Hs. Lordships Restaurant, and then continues east along the South Sailing Basin where it connects to University Avenue at the Marina entrance. The portion of

Figure 7: Berkeley Public Facilities and Emergency Access Routes



SOURCE: City of Berkeley Planning Department 2002.

this pathway along Seawall Drive is a narrow, approximately 4-6 feet, asphalt path that is in poor condition. The portion along the South Sailing Basin is 8-10 feet wide and in good condition and does not require immediate maintenance. The interior path in the Marina runs from the Berkeley Marine Center to the Yacht Club. This pathway follows the waterline and provides access to the facilities fronting the Marina Basin. This asphalt pathway is in fair condition and requires maintenance in some areas. Other interior paths in the Marina connect parking lots to Shorebird Park, Horseshoe Park, and the Olympic Sailing Club. These paths also connect to the perimeter and interior path network. They are in good condition and do not require immediate maintenance. While the pedestrian pathways are generally in good condition, with the exception of the path along Seawall Drive, the network lacks pedestrian amenities such as benches, landscaping, lighting, and directional signage.

The Marina has one bicycle path that runs parallel with University Avenue and then continues north on the east side of Marina Boulevard to Cesar Chavez Park where it connects to the paved trail that encircles the Park. This bike path is in poor condition and is rarely used. There are no other bike paths in the Marina. The Radisson Hotel and its east side parking lots have bike racks, but there are no bicycle parking or locker facilities for bicyclists.

Transportation/Traffic

The local traffic setting includes regional transportation, local transportation, public transportation systems, bicycle and pedestrian access, and parking facilities.

Regional Transportation. Interstate 80 (I-80) and Interstate 580 (I-580) follow the same north-south route adjacent to the project area. I-580 connects the East Bay road system with Marin County to the north and the San Joaquin Valley region to the east. In the project vicinity, I-80 /I-580 are oriented in a north-south direction and would provide direct access to the project area via the interchanges at University Avenue.

Local Transportation. University Avenue is a four-lane east-west major street in the City of Berkeley. University Avenue connects to I-80/I-580 via an interchange. Within the project area, the University Avenue roadway is divided by a raised median and has left-turn pockets at major intersections. University Avenue intersects with Frontage Road, and provides access to the Berkeley Marina and Cesar Chavez Park.

The main component of the existing on-site circulation system is Frontage Road, a two-lane, north-south interstate road immediately west of I-80/I-580. Frontage Road provides access from Powell Street in the southern portion of the project area to Gilman Street in the north. Frontage Road intersects Powell Street, Ashby Avenue, University Avenue, and Gilman Street, all of which provide access to I-80/I-580 and the neighboring cities of Oakland, Emeryville, Berkeley, Albany, and Richmond. Frontage Road is generally a two-lane roadway with a limited shoulder and no curb and gutter; however, in some areas there is a second southbound lane. On-street parking is limited along the west side of Frontage Road in sections south of University Avenue.

Public Transportation Systems. Public transportation is currently provided to the project area via bus and train service. Bus service to and from the project site is primarily provided by Alameda-Contra Costa Transit District (AC Transit), while Bay Area Rapid Transit (BART) provides rapid rail transit. Two BART stations are in proximity to the trail, which are the Downtown Berkeley station at Center and Shattuck, and the North Berkeley station at Delaware and Sacramento. The Downtown Berkeley and North Berkeley stations are approximately 2.2 and 1.6 miles, respectively, from the beginning of the proposed trail. The AC Transit Bus 51 provides service from these BART stations to University Avenue. Two bus stops are located near the project site off of University Avenue.

Bicycle and Pedestrian Access. The San Francisco Bay Trail (Bay Trail) is a north/south bicycle and pedestrian route west of I-80/I-580 extending from West Frontage Road from Point Emery in Emeryville to Virginia Street in Berkeley. The existing Bay Trail crosses over University Avenue in front of the Sea Breeze Market Place. The trail is a 12-foot-wide asphalt pavement over base rock with 2-foot-wide decomposed granite jogging shoulder and opened in 2003.

In 2002, the I-80 Bicycle/Pedestrian Overcrossing was opened to provide pedestrian and bicycle access from the City of Berkeley out the Waterfront. The only crossing previously provided was the University Avenue Overpass, which has heavy automobile traffic, a pedestrian sidewalk crossing two high-speed freeway ramps, and was not ADA accessible. The overcrossing has an 8-foot wide two-directional bike lane and a 5-foot wide sidewalk for pedestrians and wheelchairs. The overcrossing connects to the existing Bay Trail to the residential and business districts east of the Highway.

The Marina has one bicycle path that runs parallel with University Avenue and then continues north on the east side of Marina Boulevard to Cesar Chavez Park where it connects to the paved trail that encircles the Park. This bike path is in poor condition and is rarely used. There are no other bike paths in the Marina. Additional pedestrian circulation is provided via sidewalks and pedestrian walkways located throughout the project area. Recreational areas in and around the proposed trail route, such as Shorebird Park and Cesar Chavez Park, contain walking and jogging trails.

Parking Facilities. There are several existing parking lots in the project area. These lots primarily serve users of existing parks such as Horseshoe Park, Shorebird Park and the Marina. Based on field observations conducted by LSA in April 2001, much of the parking for users of Horseshoe Park and Shorebird Park is shared with the existing lots in the Berkeley Marina. The Marina has twelve public parking areas and on-street parking that supplies about 2,200 spaces for the Berkeley Marina. Generally, on weekdays the parking lots are not full and there is adequate capacity. On weekends, there is greater use of the parking lots, but most have available parking spaces. Parking facilities that typically fill up on weekends include the circle at the end of Spinnaker Drive, parking along Spinnaker Drive and the Radisson Hotel. Table 6 summarizes the parking lots in the Marina and their capacity.

Utilities and Service Systems

Water Supply. Water is supplied to the project area by the East Bay Municipal Utilities District (EBMUD). The EBMUD currently obtains its water from the Mokelumne River watershed.

Water Lines. A 12-inch water pipeline crosses I-80/I-580 at Hearst Avenue and runs along West Frontage Road until it diverts into an 8-inch pipe along University Avenue. This pipe provides water to the Berkeley Marina, Cesar Chavez Park, Horseshoe Park, Shorebird Park, an interpretive center, several restaurants, and a hotel.

Wastewater/Sanitary Sewer System. EBMUD treats wastewater generated in the project area. The City of Berkeley municipalities are responsible for construction and maintenance of wastewater collection and distribution pipes in the area.

EBMUD Wastewater Treatment Plant Capacity. Currently, the Main Wastewater Treatment Plant (MWWTP), located in Oakland near the entrance to the San Francisco Bay Bridge, provides secondary treatment for a maximum flow of 168 million gallons per day (MGD). Primary treatment can be provided for up to 320 MGD. Storage basins provide plant capacity for a short-term hydraulic peak of 415 MGD. The average annual flow, as of February 2002, is 80 MGD (EBMUD 2002).

Table 6: Parking Lot Capacities and Locations in the Marina

Parking Lot	Capacity	Location	Service Area
1	25	Circle at end of Spinnaker	Cesar Chavez Park
2	77	Northside	Launch Ramp, Cesar Chavez Park
3	161	A - E Dock	A-E Docks and overflow for Cesar Chavez Park
4	495	Radisson	Radisson Hotel
5	105	East Side of Marina	Docks F-I
6	200	South Sailing Basin	Windsurfing area
7	105	J - K Dock	Docks J-K, Marina Adm. Bldg, Bait Shop
8	115	Southside	Cal Sailing and Cal Adventures
9	220	L - M Dock	Docks L-M, Berkeley Co., Corporation Yard
10	133	Skates Restaurant	Skates, Horseshoe Park
11	87	N - O Dock, Yacht Club	Docks N-O, Yacht Club
12	320	HS Lordships Rest.	HS Lordships, Shorebird Park
Spinnaker Way	65	On-street	Cesar Chavez Park
Seawall Drive	90	End of University Ave	South of Berkeley Pier
Total	**2,198**		

SOURCE: Berkeley Marina Master Plan, Revised Draft 4/3/03.

Sanitary Sewer Collection System. The City of Berkeley provides sanitary sewer service to the project site within Berkeley. The City operates and maintains a system of sewer lines. The sewer lines are located in the University Avenue and Marina Boulevard rights-of-way and serve all of the development at the Berkeley Marina, including several restaurants, a hotel, a yacht club, and public restroom facilities. The existing lines would have available capacity. The City also operates and maintains five pumping stations that serve the Marina area. Four primary pumping stations and the sewer main on Marina Boulevard terminate at a fifth main pumping station located near the intersection of Marina Boulevard and University Avenue. These lines discharge into an interceptor sewer located along the eastern shore of the Bay, which connects to the EBMUD MWWTP to the south (City of Berkeley 2002).

Energy. Existing energy service points within the vicinity of the project site in the City of Berkeley are located along West Frontage Road, University Avenue, and Marina Boulevard. A natural gas service point is located on the opposite side of I-80/I-580 from Harrison Street. An overhead primary electricity line runs parallel along West Frontage Road between Gilman Street and University Avenue. A 1200-volt underground primary electricity line and gas line run along University Avenue and Marina Boulevard, serving the Berkeley Marina. There are no existing

electricity or natural gas lines west of I-80/I-580 between University Avenue and the Berkeley-Emeryville city limits (Reid 2003).

Telephone Service. SBC provides telephone line network services to the project site and surrounding vicinity. Telephone service lines exist in the general vicinity but not in all portions of the project site. A franchise agreement between SBC and the State of California requires that SBC provide service to all new developments within the franchise area.

Solid Waste. Solid waste within the East Bay Regional Park District (EBRPD) is collected by EBRPD staff and taken to a transfer site at Miller Knox Regional Shoreline. Waste at Miller Knox Regional Shoreline is then collected by Richmond Sanitary Service and transported to the West Contra Costa County Landfill (City of Berkeley 2002). West Contra Costa County Landfill is designated for closure in the spring or summer of 2003 (City of Berkeley 2002). Upon the closure of the West County Landfill, all solid waste from the project area will be collected and delivered to a transfer station at the Integrated Resource Recovery Facility located at 101 Pittsburg Avenue in the unincorporated area of North Richmond. The waste will then be transported from the transfer station to the Potrero Landfill in Fairfield (City of Berkeley 2002). The Potrero Landfill has an 11-year permitted capacity, with an actual capacity of 46 years (City of Berkeley 2002). The West County Landfill, upon closure, would remain a transfer station and would provide composting, concrete crushing and soil remediation facilities.

Richmond Sanitary Service also provides pick-up service for recyclables at Miller Knox Regional Shoreline. The following materials are recycled: steel, tin and aluminum cans, newsprint, cardboard, #1 and #2 plastic containers, and glass bottles. The materials for recycling are taken to the Integrated Resource and Recovery Facility. Richmond Sanitary Service provides construction waste pick-up from construction sites, provided that the construction materials are separated from other types of waste products (City of Berkeley 2002).

4.3 CEQA Checklist and Impact Discussion

4.3.1 AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☑	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☑	☐	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☑	☐
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☑	☐

Discussion:

a) **Less than significant impact.** The Bay Trail Extension route would provide new vista opportunities to observe the San Francisco Bay at the Berkeley Marina. Segment 1 includes the Berkeley Brickyard and the area south of University Avenue to the point south of where University Avenue meets Marina Boulevard, which is an area that falls under the Eastshore State Park General Plan. The construction of bus stop facilities, interpretive stations and trail/area lighting in the Eastshore State Park area would not impact a scenic vista due to their limited size, low profiles, and nature of their appearance.

The proposed bridge crossing would be located as close to University Avenue as possible and designed to be visually unobtrusive. To accommodate trail users who will want to observe the Cove, the bridge would be a minimum of 12 ft. wide between railings. The bridge would be colored to blend in with the surrounding soil and vegetation, would have a low profile with footings above the high water line, and would have transparent railings. The length of the bridge would be approximately 110 feet. Two to four piles will be used at each bridge footing location. According to the Eastshore State Parks General Plan, a maximum height of one-story is generally allowed for buildings and structures in order to be consistent with the protection of significant scenic views. The bridge would be constructed as a low-lying structure so as not to interfere with the visual character of the area.

Scenic vistas within the Marina would not be affected by improvements to Segments 2 through 5 because this area is already recreational with many similar structures already in place. Structures proposed for Segments 2 through 5 include bollards, benches, traffic and other signs, interpretive stations, trash containers, light fixtures, and bicycle racks. Shrubs and trees would be planted and some areas would be landscaped with turf (City of Berkeley 2001; 2M Associates 2002; City of Berkeley 2002).

b) **Less than significant impact with mitigation incorporated.** The proposed project would result in the removal of 98 trees greater than 6 inches in diameter at breast height (dbh). Many of the trees proposed for removal were noted to be diseased and of poor health and/or unstable structural condition. No trees would be removed in the construction of Segment 1, which is under the jurisdiction of Eastshore State Park. Below is a summary of the trees requiring removal and their locations:

Segment 1	0	–	Trees to be removed
Segment 2	5	–	From South Sailing Basin/California Adventures area
Segment 3	12	–	From Shoreline East of Hs. Lordships Parking lot.
	8	–	In Hs. Lordships Parking Lot
	35	–	From Seawall Drive
Segment 4	1	–	From Berkeley Fishing Pier
Segment 5	13	–	From Skates and the adjacent parking area
	18	–	From Horseshoe Park
	9	–	From Seawall Drive/Yacht Club parking lot

Indigenous and specimen trees will not be removed. All removed trees will be replaced as part of the project. Replacement trees will be chosen from the Master Plant List (Appendix B). To ensure less than significant impacts to the aesthetics of the Marina, the following mitigation measure will be implemented.

Mitigation Measure 4.3.1-1. A tree removal and replacement design plan shall be submitted to the City for approval that outlines the exact species and location of trees to be removed as well as the species, location and size of replacement trees. Trees greater than 6 inches dbh shall be replaced at a 4:1 ratio. Tree root growth shall be considered when choosing replacement tree location to minimize chances of uprooting the trail or other structures. Irrigation and replacement tree maintenance shall also be included in the plan. The plan shall be implemented prior to the completion of the project.

No natural rock outcroppings exist in the project area. Historic buildings do not exist in the project area.

The project site can be seen from I-80/I-580. The portion of I-80/I-580 between the Bay Bridge toll area and Powell Street, and north of the Emeryville peninsula to the Brickyard, provides views with the highest scenic value because of panoramic views of the Bay. The segment of the trail in the Brickyard area provides only limited views to the Bay. These views are primarily of the upland areas of the Brickyard. The quality of the views available from this segment varies but is non-descript. The project would not include any high structures in the Brickyard that could obstruct the panoramic views from I-80/I-580. (2M Associates 2002; City of Berkeley 2002; Uniform Fire Code).

Pile drivers, a crane, and other equipment would be used in bridge and trail construction. Recreational users of the Marina would see construction equipment. The pile drivers that would be used are approximately 60 ft. in height, would be visible to recreational users, and would be seen from I-80/I-580. Construction would be short term and last a maximum of four months. The impact of the construction equipment to scenic views would be less than significant due to the short duration of time that the equipment will be necessary.

c) **Less than significant impact.** The proposed project would enhance the visual quality of the site by creating a visual identity unifying the variety of marina land uses as a continuous linear experience. The quality of the site will be improved in some areas through revegetation with native plants and shrubs, and renovation of degraded pathways and structures. Structures that would be constructed at the site would not degrade the existing character of the site due to their limited size and quantity (2M Associates 2002).

d) **Less than significant impact.** The proposed project includes construction of lighting structures. The Berkeley Marina Bay Trail Extension will be managed for day use and lighting will be installed for specific use areas and safety. New lighting areas include:

Segment 3: from Hs. Lordships to and along the west shoreline

Segment 4: entire plaza area

Segment 5: entire trail segment along the west shoreline

All lighting standards will be unified to a single design motif and will be directed downward and shrouded so as to have a less than significant effect on surrounding habitats (2M Associates 2002; City of Berkeley 1986).

4.3.2 AGRICULTURE RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland.				
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☑
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☑
c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☑

Discussion:

a) **No impact.** The City of Berkeley does not contain any land designated as Farmland. Only 2% of the city's land area is vacant and most of that land is located in the area recently purchased by the East Bay Regional Park District for the Eastshore State Park. The project is located in the Berkeley Marina and would not result in conversion of any Farmlands to non-agricultural uses (City of Berkeley 2001).

b) **No impact.** There are no agricultural uses of the proposed project area. The project would not conflict with any Williamson Act contracts or existing zoning for agricultural use.

c) **No impact.** The project would not result in the conversion of any Farmlands to non-agricultural use.

4.3.3 AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.				
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☑
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☑	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☑	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☑	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☑

Discussion:

a) **No impact.** The proposed project would not contribute to the generation of significant levels of any air contaminant and would thus not conflict with or obstruct the implementation of the Bay Area Air Quality Plan. The land use of the project area would not change after project implementation (i.e., the area would remain a recreational area) and would be consistent with the Bay Area Air Quality Plan (2M Associates 2002; BAAQMD 2003; BAAQMD 2002).

b) **Less than significant impact with mitigation incorporated.** Dust and exhaust emissions would be produced during the construction phase of the project. Emissions during construction would be short-term and localized; however, due to frequent high winds in the project area, wind-blown dust could be a short-term, potentially significant impact if mitigation is not implemented. Implementing Mitigation Measure 4.3.3-1 would ensure that dust emissions from construction would not violate any air quality standards or contribute substantially to an existing projected air quality violation (2M Associates 2002).

> **Mitigation Measure 4.3.3-1.** Prior to site grading, a grading plan shall be submitted to the City of Berkeley Planning Department for review. The grading plan shall include measures to reduce emissions from construction equipment and wind blown soils that shall include, but not be limited to, twice-daily watering of disturbed soils as necessary during dry periods, proper maintenance of construction equipment, and other Best Management Practices to reduce windblown dust. The grading plan shall be followed for all construction activities for the project. The following measures to prevent PM_{10} emissions shall also be incorporated into the grading plan (refer to (c) below).

Basic Control Measures (All construction sites)

1. Water all active construction areas at least twice daily.
2. Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.
3. Pave, apply water three times daily, or apply (nontoxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
4. Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.
5. Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.

Enhanced Control Measures (Construction sites greater than 4 acres)

6. All "Basic" control measures listed above.
7. Hydroseed or apply (nontoxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
8. Enclose, cover, water twice daily or apply (nontoxic) soil binders to exposed stockpiles (dirt, sand, etc.)
9. Limit traffic speeds on unpaved roads to 15 mph.
10. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
11. Replant vegetation in disturbed areas as quickly as possible.

The use of the trail would not cause significant air emissions.

c) **Less than significant impact with mitigation incorporated.** Construction-related emissions are short-term in duration, but may still cause adverse air quality impacts. Particulate matter under 10 microns (PM_{10}) is the pollutant of greatest concern with respect to construction activities. Levels of PM_{10} in the Bay Area exceed State standards as of January 2003; the project area is considered to be in nonattainment for this pollutant. The Bay Area is unclassified (equivalent to an attainment designation) for the federal PM_{10} standard.

The Bay Area Air Quality Management District's (BAAQMD) approach to CEQA analyses of construction impacts is to emphasize implementation of effective and comprehensive control measures rather than detailed quantification of emissions. The BAAQMD has identified a set of feasible PM_{10} control measures for construction activities; these measures are identified in Mitigation Measure 4.3.3-1, above. The "Basic Measures" should be implemented at all construction sites, regardless of size. The "Enhanced Measures" should be implemented at larger construction sites (greater than 4 acres) where PM_{10} emissions generally will be higher. The proposed project would be less than 4 acres; therefore, the incorporation of the Basic Control Measures listed in Mitigation Measure 4.3.3-1 would reduce cumulative impacts for PM_{10} emissions to less than significant levels during the construction phase of the project.

Emissions associated with the post-construction phase of the project are expected to be minimal. Berkeley's main contributor to degraded air quality is vehicular exhaust.

The proposed project would not significantly increase and may in fact decrease the number of cars used in the project area. A continuous linear pedestrian/bicycle path would encourage access to the Marina by foot or bicycle instead of by vehicle (City of Berkeley 2001; 2M Associates 2002; City of Berkeley 2002; BAAQMD 1996; BAAQMD 2003; BAAQMD 2000).

d) **Less than significant impact with mitigation incorporated.** During the construction phase of the project, small amounts of air emissions would be produced. Emissions during construction would be short-term; the first phase of the project includes construction of the bridge and Segment 1 of the trail, and would take place over a maximum period of six months, with bridge construction taking a maximum of four months. Emissions would be mitigated to less than significant levels with incorporation of Mitigation Measure 4.3.3-1 so that sensitive receptors such as schools and parks that are downwind of the Marina would not be exposed to substantial pollutant concentrations (City of Berkeley 2001; 2M Associates 2002; BAAQMD 1996).

e) **No impact.** The proposed project would not create objectionable odors.

4.3.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☑	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☑	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☑	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☑	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☑
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☑

Discussion:

a) **Less than significant impact with mitigation incorporated.** The burrowing owl (*Athene cunicularia hypugea*) has been observed at the project site, but nesting has not been recorded within

the project site or vicinity. The owl is designated as a California Species of Special Concern, but is not state or federally listed as endangered or threatened. Within the project site, wintering burrowing owls have been observed in the shoreline area south of University Avenue, west of the Strawberry Creek outfall. Suitable nesting and roosting sites for burrowing owls at the project site include ground squirrel burrows, rip-rap, and concrete rubble piles. On March 28, 2003, an LSA biologist searched for burrowing owls within suitable habitat at the site; no burrowing owls or owl sign (e.g., pellets, white-wash, feathers, prey remains) were observed. Additional surveys prior to construction would be necessary to verify that owls are not present at the project site. If any occupied burrows are identified during these surveys, the project would have a potentially significant impact on burrowing owls. Implementation of Mitigation Measure 4.3.4-1 below would reduce potential impacts on burrowing owls to a less than significant level (City of Berkeley 2001; City of Berkeley 2003a; 2M Associates 2002).

> **Mitigation Measure 4.3.4-1.** Surveys shall be conducted for burrowing owls within 30 days prior to all construction in all areas identified at the time of construction to have suitable habitat for burrowing owls, following the CDFG survey protocol currently in effect at that time. If construction activities are delayed or suspended for more than 30 days, the site shall be re-surveyed. A construction buffer shall be established around each occupied burrow, at a minimum radius of 160 feet (50 meters) from the burrow during the non-breeding season (September 1 through January 31) and 250 feet (75 meters) from the burrow during the breeding season (February 1 through August 31). During the non-breeding season, if such buffers cannot be protected, the burrowing owls shall be passively relocated prior to construction, subject to prior approval of CDFG (CDFG does not allow relocation of burrowing owls during the breeding season).

The trees in the project area provide potential nesting habitat for white-tailed kites (*Elanus leucurus*) (a California Fully Protected Species), and other tree-nesting raptors such as Cooper's hawk (*Accipiter cooperii*) (a California Species of Special Concern), red-tailed hawk (*Buteo jamaicensis*), and red-shouldered hawk (*Buteo lineatus*). A pair of white-tailed kites was recorded as nesting in a tree on the north side of the Marina in 1994. The relatively high use of the project site by visitors and dogs reduces the likelihood that raptors would nest in the project area. No raptors, raptor nests, or potential raptor nests were observed during the LSA site visit on March 28, 2003. It is possible, however, that raptors nest, at least occasionally, in or near the project site and thus could be adversely affected by the project. Implementation of Mitigation Measure 4.3.4-2 below would reduce potential impacts on raptors to a less than significant level (CDFG 2003).

> **Mitigation Measure 4.4.4-2.** If any trees (greater than 15 feet tall) are to be removed during the breeding season (March 1st through August 31st), surveys shall be conducted for white-tailed kite, Cooper's hawk, red-tailed hawk, red-shouldered hawk, and other raptors within 30 days prior to tree removal. If an active raptor nest(s) is located in or within 200 feet from the project site, a construction buffer, at a minimum radius of 200 feet from the dripline of the nest tree, shall be established around each nest until nesting activities have ended. No construction activities shall be allowed within the 200-foot buffer(s) until the nesting raptors have left the nest(s).

The project is unlikely to have a substantial on-site impact on any other special-status plant or animal species. It could, however, result in off-site impacts due to the disposal of soils contaminated by perennial pepperweed (*Lepidium latifolium*), a highly invasive species. Perennial pepperweed has been observed at the sandy beach near the Strawberry Creek outfall, the uplands west of the outfall, and the area between the outfall and the Sea Breeze Market. This non-native weed is known to infest high salt marshes, sandy beaches, mudflats, and adjacent uplands and thus can substantially degrade habitat for special-status wildlife and plant species. Soil containing pepperweed seeds or pieces of root stock, if removed to an off-site location, could cause pepperweed infestations at other sites, potentially resulting in a significant impact on sensitive wildlife habitat or special-status plant species. Implementation of Mitigation Measure 4.3.4-3 below would reduce potential off-site impacts

on special-status species to a less than significant level. (Uniform Building Code; Uniform Fire Code).

Mitigation Measure 4.3.4-3. If any excavated soil is to be moved off-site, such excavation areas shall first be inspected by a qualified botanist, who shall identify those areas that are potentially contaminated by perennial pepperweed seeds or root stock. Soil excavated from the identified areas shall be disposed of within the project site (if pepperweed is not present) or in a qualified landfill (if pepperweed is present).

b) **Less than significant impact with mitigation incorporated.** The only sensitive natural communities in the project area or vicinity are wetlands and other waters of the United States (including the waters of San Francisco Bay; see discussion below). Impacts on wetlands and other waters of the United States are regulated by the U.S. Army Corps of Engineers (Corps) under Section 404 of the Clean Water Act, and impacts on the waters of San Francisco Bay are regulated by the Corps under Section 10 of the Rivers and Harbors Act. Permits from the Corps and the San Francisco Bay Regional Water Quality Control Board (RWQCB) are usually required for fill, excavation, or dredging of such wetlands or waters. A permit must be obtained from the San Francisco Bay Conservation and Development Commission (BCDC) for any impacts on San Francisco Bay, including filling, dredging, or construction of structures over the Bay. Thus, BCDC would require a permit, and may require mitigation, for the portion of the pedestrian bridge that is over the Bay, as well as for the two piers that would be placed in the Bay. BCDC also requires a permit for project features within a 100-foot-wide shoreline band adjacent to the Bay. Implementation of Mitigation Measure 4.3.4-4 below (and Mitigation Measure 4.3.4-5, under item c) would reduce impacts on areas subject to the jurisdiction of the Corps, RWQCB, and BCDC to a less than significant level.

Mitigation Measure 4.3.4-4. Prior to construction, the City of Berkeley shall obtain permits from the Corps, RWQCB, and BCDC for impacts and project features within the jurisdiction of those agencies. The City shall comply with the terms and conditions of those permits, including mitigation measures, if required.

c) **Less than significant impact with mitigation incorporated.** There are two small seasonal wetlands located in the ruderal/non-native grassland of the project area, west of the Strawberry Creek outfall and south of University Avenue. These wetlands may be federally protected under Section 404 of the Clean Water Act; impacts on the wetlands may require permits from the Corps and RWQCB. The wetlands have limited value as wildlife habitat because of their small size (about 500 square feet each); their close proximity to University Avenue (less than 40 feet away), and the high level of disturbance due to visitors, dogs, and periodic mowing. During the March 28, 2003 field survey, no standing water was present in the wetlands. Although no grading or construction is proposed in the wetlands, they could be disturbed by construction of the nearby trail. Implementation of Mitigation Measure 4.3.4-5 below would reduce potential impacts on the seasonal wetlands to a less than significant level (City of Berkeley 1986).

Mitigation Measure 4.3.4-5. No construction equipment or disturbance shall be allowed within the two seasonal wetlands or within 10 feet from the wetlands. A 10-foot-wide buffer shall be established around each wetland to protect it during construction, and silt fencing shall be installed at the outer edge of the buffers. The silt fencing shall be properly maintained during construction and properly removed after construction to avoid impacts on wetlands.

The tidal flats, rocky intertidal zone, and shallow subtidal zone, though not defined as “wetlands” (due to a lack of vegetation) are “waters of the United States” and are also protected by Section 404 of the Clean Water Act. The Strawberry Creek Bridge would cross over waters of the U.S. adjacent to the Strawberry Creek outfall. This area provides habitat for invertebrates, small fish, water birds, and possibly nocturnal predators such as raccoons. The bridge would cover approximately 1320 square feet of waters of the U.S., and the two piers would fill a much smaller area. No wetland

vegetation would be affected. Due to the small area of fill in waters of the United States, and the lack of wetland impacts, this impact is not considered significant. (City of Berkeley 1986).

d) **Less than significant impact with mitigation incorporated.** The project would not have a significant impact on movement of wildlife species because construction would occur in disturbed and developed upland areas with marginal habitat value for wildlife.. The project would not affect the movement of migratory fish in Strawberry Creek, because (1) the creek is culverted at the project site and for a substantial distance upstream; and (2) the steelhead trout (*Oncorhynchus mykiss*), an anadromous (migratory) fish species, is apparently absent from Strawberry Creek. No other migratory fish are likely to move through the site.

Several wildlife species utilize the Marina as habitat. An increase in visitors that may accompany improved facilities may also increase the amount of trash in receptacles along the path. Trash can potentially attract predators (such as skunks, raccoons, rats, squirrels, and opossum) and artificially increase populations threatening other species. The following mitigation measure would reduce these potential impacts to less than significant levels

Mitigation Measure 4.3.4-5. The City of Berkeley shall use trash receptacles within the Eastshore State Park that are designed to be inaccessible to animals.

e) **No impact.** The portion of the project site located (approximately) between the Sea Breeze Market and Marina Boulevard is designated as a Conservation Area management zone by the *Eastshore Park Project Preliminary General Plan.* Conservation Areas are "areas whose natural habitat values will be protected and enhanced while accommodating lower intensity recreation (e.g., walking, bird-watching, and picnicking) that is compatible with and dependent on those values" (City of Berkeley 2003a, p. 14). The General Plan designates the easternmost portion of the project (from the existing I-80 bicycle/pedestrian overcrossing to the Sea Breeze Market) as a Recreation Area management zone. Recreation Areas are characterized as areas "having limited habitat value" and "that can accommodate more intensive recreation." (City of Berkeley 2003a, p. 14) The proposed project features within the Conservation Area and the Recreation Area are compatible with the uses specified for those designations. (City of Berkeley 2003a).

There are no other local policies or ordinances, such as a tree preservation policy or ordinance, protecting biological resources in the project area.

f) **No impact.** There are no adopted Habitat Conservation Plans or Natural Community Conservation Plans that apply to the project area.

4.3.5 CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☑
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☑	☐	☐
c) Directly or indirectly destroy a unique paleontological resource				

4.3.5 CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
or site or unique geologic feature?	☐	☐	☐	☑
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☑	☐

Discussion:

a) **No impact.** The project area is on recent fill material and bay mud. Historical resources as defined in 15064.5 of the CEQA Guidelines do not exist in the project area. The project would not impact any historical resources. (City of Berkeley 2001; 2M Associates 2002; Olson 2003).

b) **Less than significant with mitigation incorporated.** The project would be located on fill material and bay mud. Archaeological resources as defined in 15064.5 of the CEQA guidelines are not expected to exist in the project area; however, there is a low potential that resources may be encountered in the Strawberry Creek area of the project. During excavation of soil for the construction of the bridge, or during ground disturbing activities for trail construction, undocumented archaeological resources could potentially be disturbed. The implementation of Mitigation Measures 4.3.5-1 and 4.3.5-2 would reduce this impact to a less than significant level. (City of Berkeley 2001; 2M Associates 2002; Olson 2003).

> **Mitigation Measure 4.3.5-1.** If archaeological resources are discovered during excavation, all work in the immediate vicinity shall be suspended pending site investigation by a qualified archaeologist to assess the materials and determine their significance. If a qualified professional determines that the resource shall yield new information or important verification of previous findings, construction in the immediate area shall not resume until state and federal officials have been consulted and the resources appropriately evaluated and treated, as required under federal and state regulations.
>
> **Mitigation Measure 4.3.5-2.** If archaeological resources are discovered during excavation for the proposed action and avoidance of these resources is not feasible, evaluation of the resources shall be required. An evaluation plan shall be prepared that provides for the methodical excavation of resources that would be adversely affected. Only a qualified archaeologist shall be allowed to collect any discovered prehistoric resources. The work shall be accomplished within the context of a detailed research design and in accordance with current professional standards. The plan shall result in the extraction of sufficient volumes of non-redundant archaeological data to address important regional research issues. Detailed technical reports shall be prepared to document the findings. If the resources are determined to be eligible for listing on the National Register of Historic Places, an appropriate treatment (mitigation) plan shall be developed and implemented. Treatment would include data recovery to gather the information contained in the site.

c) **No impact.** The project is located on bay fill and has no potential to affect unique paleontological resources. The project area is located on recent fill material and bay mud and unique geological features do not exist in the project area; therefore, the project would have no impact on unique geological features.

d) **Less than significant with mitigation incorporated.** The project is located primarily on recent bay fill and has very low potential to disturb human remains. The implementation of Mitigation Measure 4.3.5-3 would ensure this impact is less than significant.

Mitigation Measure 4.3.5-3. If the project sponsor or any construction contractors discover prehistoric archaeological deposits that include human remains during excavation for the proposed project, the County Coroner shall be immediately notified. If the remains are found to be Native American, local Native American groups and the Native American Heritage Commission (NAHC) shall be notified within 24 hours. The most likely descendents of the deceased Native American shall be notified and given the chance to make recommendations for the remains. If no recommendations are made within 24 hours, remains may be reinterred elsewhere on the property. If recommendations are made and not accepted, the NAHC shall mediate the problem.

4.3.6 GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☑
ii) Strong seismic ground shaking?	☐	☑	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☑	☐	☐
iv) Landslides?	☐	☐	☐	☑
b) Result in substantial soil erosion or the loss of topsoil?	☐	☑	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☑	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☑	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☑

Discussion:

a) i) **No impact.** The Hayward Fault is the closest fault to the project site and is located several miles east of the Berkeley Marina. The area is imported fill and bay mud. No known active faults cross the project area. The project area would not be subject to ground rupture at a known fault. (ABAG 1998).

ii) **Less than significant impact with mitigation incorporated.** A system of parallel faults, including the Hayward, Rodgers Creek, Calaveras, San Andreas, and numerous other faults exist in the project vicinity and pose a potential threat to the community. Ground shaking is the vibration that radiates from the movement of a fault. Because it can damage or collapse buildings and other structures, ground shaking is the most serious and direct hazard produced by an earthquake. According to the City of Berkeley General Plan, the Marina district is in a zone of strong shaking if the Hayward fault, the closest fault to the project site, were to produce an earthquake. The proposed Strawberry Creek Bridge would be at risk of damage from strong seismic-shaking; however, with implementation of Mitigation Measure 4.3.6-1, impacts from seismic shaking would be less than significant. (City of Berkeley 2001; 2M Associates 2002; Uniform Building Code).

> **Mitigation Measure 4.3.6-1.** The Strawberry Creek Bridge shall be designed by a licensed engineer and shall conform to the seismic design standards of Caltrans and the Uniform Building Code (UBC).

iii) **Less than significant impact with mitigation incorporated.** The Berkeley Marina is a classified zone for high liquefaction potential during a seismic event due to the fact that the area is mostly comprised of fill and bay mud. The proposed Strawberry Creek Bridge would be at risk of damage from liquefaction; however, implementation of Mitigation Measure 4.3.6-1 would reduce this impact to a less than significant level.

The entire project vicinity is composed of the same underlying materials and is at the same risk of seismic-related ground failure; therefore, the proposed project would not expose people to substantially increased adverse effects involving seismic-related ground failure, including liquefaction. (City of Berkeley 2001; 2M Associates 2002; Uniform Building Code; City of Berkeley 2002).

iv) **No impact.** The project site is not located on a historical landslide, or in a hilly area; therefore, implementation of the proposed project would not subject people or structures to landslides.

b) **Less than significant with mitigation incorporated.** Construction activities would temporarily result in unstable soil conditions, which could lead to erosion and topsoil loss. There would also be a minor amount of ground disturbance associated with the construction of the Strawberry Creek Bridge.

Considering the sensitivity of the shoreline area, sedimentation and erosion effects from trail run off could potentially be significant if unmitigated. Surface conditions throughout the project area have been considered by the design team to evaluate the potential for soil loss by erosion and to develop means (by grading, structural measures and/or other improvements) to control erosion. Implementation of Mitigation Measures 4.3.6-2 and 4.3.6-3 would reduce erosion and topsoil loss to a less than significant level. (2M Associates 2002).

> **Mitigation Measure 4.3.6-2.** Prior to ground disturbance, a grading plan shall be submitted to the City Public Works Department for review. The grading plan shall include a construction erosion control plan with Best Management Practices designed to minimize sediment in site runoff during construction. The provisions shall include: limiting the size of areas disturbed, watering of disturbed soils twice daily, avoiding long unbroken flow paths, making drainage swales broad and flat, and routing off-site drainage around newly disturbed areas. The grading plan shall also have provisions for minimization of grading and excavation and for a balance of cut and fill. Trapping sediment before it leaves the construction site would minimize any potential sedimentation of waterways. This would be

accomplished through the use of riprap, or siltation fencing. (Sediment fencing is preferred over hay bales because use of hay has been found to proliferate the expansion of invasive and non-native species.)

Mitigation Measure 4.3.6-3. Earthmoving activities shall not occur during rainy periods of the year.

c) **Less than significant with mitigation incorporated.** Many of the soils underlying the project area have moderate to high shrink-swell potential. The soils are subject to liquefaction and settlement potentially resulting in lateral spreading, subsidence, liquefaction, or collapse. Structural damage, warping, cracking of roads and sidewalks, and rupture of utility lines may occur if expansive soils and ground settlement are not considered during design and construction of improvements. Settlement is expected to continue to occur in the project area due to compaction of underlying unconsolidated Bay mud. New development will increase the rate of settlement as additional fill and structural loads are placed on the landfill. The proposed Strawberry Creek Bridge would be at risk of damage from unstable soil; however, Mitigation Measure 4.3.6-1 would reduce this impact to a less than significant level. The Bay Trail Extension bicycle/pedestrian path would also be designed for: structural integrity, function, and safety; cost effectiveness; and efficiency in long-term maintenance and operations. The design takes into consideration maintenance necessary because of soil settlement. In areas where minor amounts of subsidence occurs, routine maintenance would be performed to correct any localized areas of differential settlement. These maintenance activities are anticipated to be localized, minor, and infrequent. (City of Berkeley 2001; City of Berkeley 2003a; 2M Associates 2002; Uniform Building Code).

d) **Less than significant impact with mitigation incorporated.** The proposed Strawberry Creek Bridge would be located on expansive soils; however, incorporation of Mitigation Measure 4.3.6-1 would reduce impacts to the bridge resulting from expansive soils to a less than significant level. (Uniform Building Code).

e) **No impact.** No septic tanks or wastewater disposal systems that would require a leach field are proposed for the project site. Sewers are available at the project site. No new restroom facilities/sewage requiring systems, or drains are proposed. (2M Associates 2002).

4.3.7 HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☑	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☑	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely				

4.3.7 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☑
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☑	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☑

Discussion:

a) **Less than significant impact.** Hazardous materials used during construction (i.e., diesel fuel, oil, gasoline) would be used in small amounts during project construction. These materials would not create a significant hazard to the public or to the environment. No other hazardous materials would be transported to the site. (2M Associates 2002)

b) **Less than significant impact with mitigation incorporated.** Minimal ground disturbance and excavation is necessary for construction of each segment of the trail. In certain locations some tree removal is necessary. Construction of the pile-supported bridge across Strawberry Cove would result in minimal surface and subsurface disturbance. The soils of this area contain some chemicals of potential concern (COPC) due to previous landfill activities (see Section 4.2.2, Local Setting). Removed soil could contain CPOCs, or could expose CPOCs if the soil atop contaminated layers is removed. Strawberry Cove also contains perennial pepperweed (*Lepidium latifolium*), which is believed to be toxic and is an invasive plant (Refer to Section 4.3.4 Biological Resources).

Implementation of Mitigation Measures 4.3.4-3 from Biological Resources and 4.3.7-1, 4.3.7-2 and 4.3.7-3 below, would reduce risks of hazardous materials release into the environment to a less than significant level.

> **Mitigation Measure 4.3.7-1.** Excavated soils from all non-paved areas shall be handled such that dust is controlled, minimizing exposure to construction crews and recreationalists.

Mitigation Measure 4.3.7-2. Excavated and freshly exposed soils in the Berkeley Brickyard shall be tested for petroleum hydrocarbons, metals and CPOCs. Prior to disposal or reuse, excavated soils from project areas overlying the Berkeley Brickyard shall be tested for petroleum hydrocarbons and metals. Any excavated soils found to contain contaminants at levels considered unsafe for human exposure or environmental exposure shall be disposed of appropriately. If exposed soil is found to contain CPOCs, a layer of uncontaminated, clean soil shall be imported and filled over the existing soil to prevent exposure of CPOCs in the surface layer.

Mitigation Measure 4.3.7-3. The City shall coordinate with the California Department of Toxic Substance Control (CDTSC) Voluntary Cleanup Program and take the necessary steps to ensure proper cleanup and disposal of any contaminated soils encountered during construction.

Once the project construction period is over, no routine transport, use, production, upset, or disposal of hazardous materials would occur during normal use of the Bay Trail Extension. Some hazardous materials, such as fuel and oil, are stored at designated locations in the Berkeley Marina. There will be no hazardous material storage sites along the Bay Trail Extension. Therefore, no upset or accidents involving the release of hazardous materials into the environment are reasonably foreseeable. (2M Associates 2002; City of Berkeley 2002; 3E Engineering 1989)

c) **No impact.** The project activities would not occur within 0.25 miles of a school. The potential effects to schools from hazardous emissions or the handling of hazardous materials associated with construction or operation of the proposed park would be less-than-significant due to the limited amount and nature of the hazardous materials on site. (2M Associates 2002; Uniform Building Code)

d) **Less than significant impact.** The project is not located on any hazardous materials site; however, a portion of the project is located on a previous landfill. Hazardous substance testing is performed yearly by EBRPD. No remediation was required for the Berkeley Brickyard site upon inspection in 1998. The project area already contains recreational facilities. The project would result in less than significant safety hazards for people utilizing the project area. (City of Berkeley 2002)

e) **No impact.** The project is not located within an airport land use plan. (City of Berkeley 2001)

f) **No impact.** The project site is not in the vicinity of a private airstrip. (City of Berkeley 2001)

g) **No impact.** The project would not interfere with adopted emergency response plans or emergency evacuation procedures. An emergency evacuation route extends down University Avenue to the intersection of Marina Boulevard at the entrance of the Marina. Project construction and operation would not affect the established emergency evacuation route. (City of Berkeley 2001; 2M Associates 2002; Uniform Fire Code)

h) **No impact.** The Berkeley Marina does not fall within a Hazardous Fire Area District as designated by the City of Berkeley General Plan. Wildlands do not exist in the project vicinity. Fire risk in the project area is low due to location on the waterfront, direction of wind, and type of vegetation and structures on-site. Fire risk would remain low after project construction. (City of Berkeley 2001; 2M Associates 2002)

4.3.8 HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☑	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☑	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☑	☐	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?	☐	☐	☑	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☑	☐	☐
f) Otherwise substantially degrade water quality?	☐	☐	☑	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☑
h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	☐	☐	☐	☑
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☑	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☑	☐

Discussion:

a) **Less than significant with mitigation incorporated.** Project construction activities could potentially affect surface water quality through erosion. Grading and earthmoving activities associated with bridge construction or trail surface preparation would be of relatively limited extent, but could expose disturbed soils to the erosive forces of wind and/or rain. This potential could lead to increased sediment deposition on the shoreline or in Strawberry Cove. Existing rip rap along the shores of the Marina would lessen erosion; however, Mitigation Measure 4.3.6-2 and 4.3.5-3 from Geology and Soils would reduce erosion to a less-than-significant level.

The parking facilities could introduce associated pollutants such as oil and grease. Mitigation Measures 4.3.8-1, 4.3.8-2, and 4.8.3-3 would reduce risks to surface water quality to a less than significant level.

> **Mitigation Measure 4.3.8-1.** All necessary permits from the San Francisco Bay Regional Water Quality Control Board (RWQCB) shall be obtained before construction. A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared in accordance with Section 4019(A)(1) of the Clean Water Act. The plan shall address control of runoff from parking lots and other impervious surfaces.
>
> **Mitigation Measure 4.3.8-2.** Renovated parking lots shall be designed with grease traps installed in storm drains and shall be subject to periodic maintenance. (City of Berkeley 2001; 2M Associates 2002; City of Berkeley 1986)
>
> **Mitigation Measure 4.3.8-3.** The project shall be subject to all requirements as listed in the Alameda Countywide Clean Water Program (ACCWP).

b) **Less than significant impact.** Project activities would not affect groundwater resources in the project area and the project would not use groundwater. The addition of approximately 4,600 feet of trail at a width of 12 feet in Segments 1 and 2 of the project would introduce approximately 1.3 acres of new impervious surfaces. The construction of Segments 1 and 2 would not have a significant impact on groundwater recharge in the area because the new impervious surface is linear and occurs across a large area. Segments 3 through 5 of the project involve both the introduction of new impervious surfaces and the removal of current impervious surfaces. The project would not result in a significant net change in impervious surfaces in this area and would not have a significant effect on groundwater recharge. (2M Associates 2002)

c) **Less than significant with mitigation incorporated.** Construction activities involving minimal amounts of grading and earthmoving activities could potentially affect the existing drainage pattern of the site. Construction activities would be temporary in duration and Mitigation Measure 4.3.6-2 and 4.3.6-3 from Geology and Soils would reduce these impacts to less than significant levels.

After construction is complete, the project would not alter the existing drainage pattern of the area, nor would it cause substantial erosion or siltation on- or off-site. The Marina's storm drainage system operates mainly by surface drainage. Storm drains follow the perimeter of the main basin and empty directly into it. In most cases, drainage from the Bay Trail Extension and adjacent turf areas will be directed to grassy swales or enhancement wetlands. Exceptions include those areas where the trail passes through already paved areas where existing drainage systems will be used. These areas include the South Sailing Basin, the entrance plaza to the Berkeley Pier, and the areas immediately in front of Hs. Lordships and Skates restaurants.

The project would not cause the alteration of the course of a stream or river in a manner that would result in substantial erosion or siltation on- or off-site. The mouth of Strawberry Creek is a part of Segment 1. The stream would not be affected by bridge construction because the creek is currently directed through a concrete culvert underneath University Avenue. The creek flows into Strawberry Cove, where the bridge will be built, after it exits the culvert. The cove would be impacted by construction and the presence of the bridge. Construction would involve driving in three piles for each of the two footings of the bridge crossing. Construction would be staged at a position south and west of the existing I-80 pedestrian overcrossing. The crane would operate from University Avenue.

The impacts to the cove from construction would occur over a maximum of four months and be less than significant. The two bridge footings, consisting of three bridge piles each could slightly change the flow of water through the cove and cause changes in the siltation pattern. These changes are expected to be minor (a few feet) and would not affect Strawberry Creek because the creek is on the inland side of the culvert. (2M Associates 2002)

d) **Less than significant impact.** The project would not alter the existing drainage pattern of the area, nor would it substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. New structures would include lamps, bicycle racks, benches, signs, interpretive facilities, trash receptacles, and other similar structures. These structures, due to size and nature, would not significantly alter the direction of surface runoff. Segment 1 would introduce new impervious surface; however, the amount of impervious surface would be small and drainage would be directed towards the shoreline. Segments 2-5 would generally follow existing paved areas and would not significantly increase the amount of impervious surfaces. The majority of the trail area is well drained because it is in close proximity to, and elevated in relation to nearby drainages such as Strawberry Creek and the San Francisco Bay.

e) **Less than significant impact with mitigation incorporated.** The project would result in the paving of some surfaces not currently paved or the expansion of currently paved areas impervious to water. Approximately 1.3 acres of new impervious surface would be introduced over the entire project area, occurring mainly in Segment 1. There is potential for additional sources of polluted runoff water. Implementation of Mitigation Measures 4.3.8-1 through 4.3.8-3 from above would reduce risks of additional polluted runoff to a less than significant level.

The project would not create additional runoff that would exceed existing stormwater drainage capacity. Increased impervious surface would mostly occur in Segment 1, where stormwater would drain to adjacent turf and grassy swales and not to existing stormwater systems. In areas where the trail passes through already paved areas, existing drainages will be used; however, there will not be a significant increase in impervious surface in these areas to create runoff that would exceed the existing facilities' capacity.

The project would decrease run-off water quality during construction; this effect would be minimal and temporary. Drainage from the Bay Trail Extension and adjacent turf areas will be directed to grassy swales or enhanced wetlands and improve water quality. The project would not provide substantial additional sources of polluted runoff. (2M Associates 2002)

f) **Less than significant impact.** Water quality would not be negatively impacted. Although there will be an increase in parking spaces, significant amounts of oil and grease from parking lots will continue to be trapped so as not to degrade water quality. The project would also provide trash containers along the trail and on Strawberry Creek Bridge, which would reduce trash and floatable debris that are currently found along the trail and in Strawberry Cove. (2M Associates 2002)

g) **No impact.** The project does not involve any housing construction, nor are there any residences or housing units within the Marina. (2M Associates 2002)

h) **No impact.** The Berkeley Marina does not fall within a 100-year flood hazard zone. Strawberry Creek poses a flood hazard for the area immediately west of Oxford Street, as well as to parts of the campus. Water enters the mouth of Strawberry Cove through a concrete culvert and from there, exits into the Bay. The Strawberry Creek Bridge would be built above the flood level and would not impede or redirect flood flows due to its limited size and nature. (City of Berkeley 2001; 2M Associates 2002)

i) **Less than significant impact.** The project would not expose people to flooding because it is a recreational area and people would not be present during times of potential flooding. The project would not increase the likelihood of flooding, including flooding as a result of levee or dam failure. The trail would get fewer visitors during periods of substantial rainfall. During periods of extreme flood risk, the Bay Trail Extension would be closed. The project does not include any residential structures.

j) **Less than significant impact.** Some potential for wave damage exists along the Berkeley waterfront, but tsunami waves (triggered by earthquakes, underwater landslides, or volcanic eruptions) have historically resulted in little damage around San Francisco Bay. Project structures could potentially be exposed to inundation by a seiche or tsunami, although it is unlikely. The Berkeley Marina is designated as a potential flood risk area due to inundation by a tsunami. Due to the nature of project structures (pedestrian bridge, benches, lampposts), inundation by a seiche or tsunami would not create significantly increased threat to human safety or property. (City of Berkeley 2001)

4.3.9 LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☑
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☑	☐	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☑

Discussion:

a) **No impact.** The project would not divide an established community. The Bay Trail Extension would generally follow paved and unpaved paths in the project area, and would not create any barriers to movement in the area. The project would not significantly disrupt or divide the physical arrangement of the project area.

b) **Less than significant impact with mitigation incorporated.** Several land use plans, policies and regulations are applicable in the project area. Some policies would require approvals or permits for the proposed project. The project would have a significant impact if these permits or approvals were not secured. Mitigation is provided to prevent impacts to policy and regulatory compliance.

General, Master, and Bicycle Plans

The development of the project would be a continuation of existing recreational uses in the project area and would not conflict with established recreational uses in the area. The goals defined in Section 2, Project Description, are consistent with the Guiding Principles and Policies in the Berkeley Draft Marina Master Plan and in the Eastshore State Park General Plan. The project is also consistent with other plans guiding land use within the project area, including the City of Berkeley 2002 General Plan, the 1986 Berkeley Waterfront Master Plan, and the 2000 Berkeley Bicycle Plan.

*Draft Marina Master Plan***.** A main goal of the Bay Trail Extension project is to "*provide accessible outdoor recreation and education opportunities for all residents of the City of Berkeley*." This is

consistent with one of the main goals of the Marina Master Plan, which is to "*enhance open space and recreational opportunities*." The vision statement for the Trail is to "*link the City of Berkeley with the variety of outdoor recreation experiences that occur along the trail alignment with the peacefulness evoked by the open space and timelessness of the San Francisco Bay*." (City of Berkeley 2003b)

*Eastshore State Park General Plan***.** The proposed project supports the management and development designations for the Brickyard and the area from University Avenue Shoreline from Strawberry Creek to the western boundary of the State Park. The portion of the project site located (approximately) between the Sea Breeze Market and Marina Boulevard is designated as a Conservation Area management zone. Conservation Areas are "areas whose natural habitat values will be protected and enhanced while accommodating lower intensity recreation (e.g., walking, bird-watching, and picnicking) that is compatible with and dependent on those values" (City of Berkeley 2003a, p. 14). The General Plan designates the easternmost portion of the project (from the existing I-80 bicycle/pedestrian overcrossing to the Sea Breeze Market) as a Recreation Area management zone. Recreation Areas are characterized as areas "having limited habitat value" and "that can accommodate more intensive recreation" (City of Berkeley 2003a, p. 14). The proposed project features within the Conservation Area and the Recreation Area are compatible with the uses specified for those designations. (City of Berkeley 2002)

Since the project belongs to the City of Berkeley, there would be a significant impact to established policies if formal approval from the California Department of Parks and Recreation is not secured before construction. Mitigation Measure 4.8.9-1 would eliminate this potential impact.

> **Mitigation Measure 4.8.9-1.** For the portions of the Bay Trail Extension that are within the Eastshore State Park, agreements shall be formalized between the City of Berkeley and the California Department of Parks and Recreation to allow the City of Berkeley to make improvements on State Lands.

*Berkeley General Plan***.** The project is consistent with the City of Berkeley's General Plan, Open Space Element, Policy OS-13, *"Waterfront Open Space and Recreational Facilities*". Action item "D" of this policy is to "*complete the Berkeley portion of the Bay Trail and connections to Cesar Chavez Park and links to the Berkeley Marina*." (City of Berkeley 2001)

*Waterfront Master Plan***.** The proposed project is consistent with the main goals of the 1986 Waterfront Master Plan:

> Goal 1: Establish the waterfront as an area primarily for recreational, open space, and environmental uses, with preservation and enhancement of beaches, marshes, and other natural habitats.
>
> Goal 2: Develop the waterfront as part of a continuous east bay shoreline open space system.
>
> Goal 3: Provide for an appropriate amount and type of private development, to make the waterfront part of Berkeley's vibrant urban community, attractive to and usable by Berkeleyans, neighboring bay area residents and other visitors.
>
> Goal 4: In all types of development, meet the needs of the unemployed and underemployed Berkeley residents, in both construction and permanent jobs.
>
> Goal 5: Establish uses and activities that reflect and enhance the unique character of the waterfront and foster the community's relationship with the shoreline. (City of Berkeley 1986)

*Berkeley Bicycle Plan***.** The 2000 Berkeley Bicycle Plan identifies improved bicycle paths in the Marina including: a Path (Class 1 – multiuse; non-motorized only) along Seawall Drive, and a Bike Lane (striped lane for bicycles only) along University Avenue. Segments 3, 4 and 5 of the proposed trail address the Class 1 path identified in the Bike Plan. Segments 1 and 2 of the proposed trail

would run parallel to University Avenue, providing a complement to the bike lane on University Avenue identified in the Bike Plan. (City of Berkeley 2000)

Access for the disabled. All portions of the Bay Trail Extension, renovated parking, related recreation facilities, and interpretive facilities will be developed and signed for universal access to accommodate requirements of the Americans with Disabilities Act (ADA). The project is in direct support of one of the identified actions stated under Policy OS-2, *"Maintenance, Repairs and Enhancement*" of the Berkeley General Plan Open Space Element. The identified action is to "*Improve access for the disabled to park and open space facilities*." Policy OS-10, "*Access Improvements",* aims to *"Improve transit, bicycle, disabled, and pedestrian access to and between open space and recreation facilities, including regional facilities such as the Berkeley Marina…"* Additionally, the project supports one of several "essential projects" that were identified in the Marina Master plan, specifically, to "*upgrade pathways to ADA*." (City of Berkeley 2001; City of Berkeley 2003b)

The San Francisco Bay Conservation and Development Commission (BCDC)

The BCDC regulates development, as authorized under the McAteer-Petris Act, of projects within 100 feet from the edge of the Bay. The proposed project occurs within 100 feet from the edge of the Bay; therefore Mitigation Measure 4.8.9-2 will be implemented in order to meet BCDC regulations.

> **Mitigation Measure 4.8.9-2.** A permit from the BCDC shall be secured for the proposed project before construction can commence, if necessary. The design plans for the Berkeley Bay Trail Extension and any associated structures shall be submitted for approval upon certification of this Negative Declaration.

State Lands Commission (SLC)

A portion of the project is located on State Lands. Article 2, under Leasing and Other Use of Public Lands, of the State Lands Commission Regulations regulates the leasing of all lands under the Commission's jurisdiction for all surface uses except the exploration for or extraction of natural resources including minerals, oil, gas or other hydrocarbons, or geothermal resources or any other natural resources, excluding timber. An application for a permit or a lease may be necessary for this project. The following mitigation measure will ensure that SLC Regulations are not violated.

> **Mitigation Measure 4.8.9-3.** The SLC shall be consulted and any permits or leases will be secured, if necessary, for the City of Berkeley to make improvements on State Lands.

Federal Code of Regulations

Title 33, Chapter 11, Section 491 of the Federal Code of Regulations requires that bridges over navigable waters have design and construction plans approved by the Secretary of Transportation before building commences. There are two exemptions to these regulations: this exemption shall not apply to any bridge over waters that are not subject to the ebb and flow of the tide and which are not used and are not susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce. The Strawberry Creek Bridge would be build over the San Francisco Bay, which is a navigable waterway; however the pedestrian bridge would be exempt from needing approval because it is not susceptible to use as a means to transport interstate or foreign commerce.

c) **No impact.** No habitat conservation plans or natural community plans exist that are applicable to the project area.

4.3.10 MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☑
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☑

Discussion:

a) **No impact.** The project would not result in the loss of availability of any known mineral resource. The project site is located on fill and bay mud where no minerals are known to exist. (City of Berkeley 2001)

b) **No impact.** The project would not result in the loss of availability of a locally important mineral resource recovery site. (City of Berkeley 2001)

4.3.11 NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the project:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☑	☐	☐
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	☐	☐	☑	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☑	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☑	☐
e) For a project located within an airport land use plan or, where such				

4.3.11 NOISE

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
	a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑
f)	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑

Discussion:

a) **Less than significant with mitigation incorporated.** Implementation of the proposed project would not require extensive construction or improvements. Trail construction and maintenance would generally be limited to construction of the bridge crossing, pavement removal and, paving activity. The project would result in short-term increases in noise levels during construction. Various types of equipment would be used during project construction including graders and haul trucks, machinery to break up pavement, and pile drivers for the construction of the Strawberry Creek Bridge. Table 7 identifies noise levels usually associated with construction equipment.

Construction equipment would generate intermittent high noise levels. Noise generation would be limited to the construction timeframe, which would be a matter of months per segment. Project construction would not affect any sensitive noise receptors (other than wildlife, see Section 4.3.3 Biological Resources). The construction of the Strawberry Creek Bridge would generate the highest level of noise since pile drivers would be used to place the bridge support systems. Pile drivers would be used on an extremely short-term basis (i.e. one to two days). The pile drivers that would be

Table 7: Noise Levels (in dBA) for Typical Types of Construction Equipment

Equipment	Noise Level at 100 feet[1]	With Feasible Noise Control[2]
Pile Driver	95	85
Scraper	82	74
Backhoe	79	69
Loader	73	69
Generator	72	69
Saw	72	69

[1] The rate of attenuation (i.e., decrease in noise level) from a point source is approximately six dBA for every doubling of distance away from the source.

[2] Estimated levels obtainable by selecting less noisy procedures or machines and implementing noise-control features requiring no major redesign or extreme cost.

SOURCE: U.S. Environmental Protection Agency 1971

used are approximately 60 feet in height, and would be highly visible to people in the vicinity of the proposed area where pile driving would occur. Visibility would generally discourage close range exposure, since most individuals associate large equipment with loud noise.

The project construction would subject individuals to noise levels above regulations or standards without mitigation. The Berkeley Marina is considered to be an "unclassified" zone according to the Berkeley Municipal Code. No noise standards are identified for an unclassified area in the Berkeley General Plan; however, noise should not be considerably louder than the ambient level. Construction noise could be significantly louder than the ambient noise levels in the area. Mitigation Measures 4.3.11-1 and 4.3.11-2 would reduce sound impacts to a less than significant level.

Mitigation Measure 4.3.11-1. Noise control equipment shall be used on construction equipment (i.e. mufflers) to reduce noise levels. Impact tools should be shielded or shrouded when practical and all equipment should have muffled exhaust systems.

Mitigation Measure 4.3.11-2. During pile driving activities at Strawberry Cove, the City of Berkeley shall place warning signs identifying the potential for increased noise levels in the vicinity due to construction activities. These signs should be placed along public access routes approximately 500 feet from the site of pile driving activities. This distance would reduce noise levels generated by pile driving to approximately 70 dBA, which would be consistent with City of Berkeley noise guideline

Recreational use of the area has the potential to increase with project implementation. Noise associated with trail use is generally low and it is not anticipated that noise levels would increase significantly. The increase in noise would not be in excess of noise standards or applicable noise ordinances. (City of Berkeley 2001; 2M Associates 2002; National Academy of Sciences 1977)

b) **Less than significant.** No substantial ground vibration would be generated by the project because the project involves the construction of a bridge and paved trails. Some ground vibration may result from the breaking of pavement and pile driving; however these activities would be limited in location and duration.

c) **Less than significant impact.** Implementation of the project could potentially increase the amount of recreational use already present in the project area. Human voices would be the main source of noise from trail use. Although use of the trail would generate noise, noise generated from other sources in the project vicinity could generate higher ambient noise levels, and the contribution of human use of the trail to ambient nose levels would be small. For example, doubling of sound would generate only a 3 dBA increase in noise levels. The project would not substantially increase the permanent ambient noise levels in the vicinity.

d) **Less than significant impact.** The proposed project could potentially result in a slight increase in ambient noise levels at the project site due to increases in recreational use. Increases in noise level would be periodic with higher usage in the summer months and on weekends, but would not substantially increase the ambient noise level above present levels.

e) **No impact.** The closest airport is Oakland International Airport, which is about 15 miles from the project site. Airplanes occasionally fly over the project site and create an increase in ambient noise. The project site is currently used as a recreational facility, so the project would not further increase exposure to noise generated by an airport.

f) **No impact.** The project is not located within the vicinity of a private airstrip.

4.3.12 POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☑
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑

Discussion:

a) **No impact.** The proposed project would not induce population growth in the project vicinity because the project is an improvement of existing recreational and open space areas. The proposed project would not increase the demand for housing in the project area. (City of Berkeley 2001; City of Berkeley 2003a; 2M Associates 2002)

b) **No impact.** The project would not displace existing housing because the project is an improvement of existing recreational and open space areas.

c) **No impact.** The project would not displace people because it is an improvement of existing recreational and open space areas.

4.3.13 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the project:				
Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire protection?	☐	☑	☐	☐
b) Police protection?	☐	☐	☑	☐
c) Schools?	☐	☐	☐	☑
d) Parks?	☐	☐	☑	☐
e) Other public facilities?	☐	☐	☑	☐

Discussion:

a) **Less than significant impact with mitigation incorporated.** The project site is currently used as a recreational area and implementation of the proposed project would improve and potentially increase usage of the area. The project would not result in an increase in fire risk in the project area. The potential increase in usage could increase the need for Emergency Medical Technicians (EMTs). Potential increases in emergency aid as a result of the project would be less than significant.

Emergency Vehicle Access. Project construction will involve the removal of part of Seawall Drive from Segments 3 and 5. Traffic will be re-designated through Hs. Lordships parking area. The parking lots servicing docks N-O and the Yacht club will be renovated with additional parking spaces. Emergency vehicle access will be provided through these lots. Current fire protection and EMT services could suffer from decreases in response times or other performance objectives as a result of the relocation of access ways from Seawall Drive to the parking lots. The implementation of Mitigation Measure 4.3.13-1 would ensure that less than significant effects to fire and EMT response times and access would result from the relocation of access from Seawall Drive through the parking lots.

Mitigation Measure 4.3.13-1. Fire access lanes through the parking lots shall be designed to meet appropriate standards and the guidelines of the Uniform Fire Code and the City of Berkeley Planning Department. Fire access routes shall be clearly identified and recognizable, be at least 20 feet wide, have at least a 13 ft. 6 in. vertical clearance from trees, be suitable in all weather conditions, and constructed to support the weight of fire engines. (City of Berkeley 2001; City of Berkeley 2003a; 2M Associates 2002; Uniform Fire Code)

b) **Less than significant impact.** Increases in use of the Marina may require increases in police protection. Since the current area is already recreational with existing facilities and trails, it is not expected that police protection would significantly differ from current police services in the project area. Police would continue to casually patrol the area. With the elimination of Seawall drive and rerouting of traffic through parking lots, police access to the marina could be slowed. Mitigate measure 4.3.13-1 will ensure that access for emergency vehicles will be provided/maintained. Current police protection services would not suffer from significant decreases in response times or other performance objectives as a result of the project. Impacts to police protection as a result of the proposed project would be less than significant. (City of Berkeley 2001; 2M Associates 2002)

c) **No impact.** The project would not increase the population of the area and would not have an impact on schools in the project vicinity. Schools using the site could potentially increase as a result of the proposed interpretive facilities.

d) **Less than significant impact.** The project would enhance the existing Eastshore State Park as well as other park facilities in the Marina by unifying them in one linear experience. The project would have a beneficial effect on parks in the project area because it would increase recreational opportunities.

The proposed project would renovate the western portion of Horseshoe Park, reducing the Park's total size by approximately 3,500 square feet and useable area by approximately 750 square feet. This is not considered to be a significant impact to recreation because the reduction in Park size would be offset by increased access to the entire Marina area. (2M Associates 2002; City of Berkeley 2002)

e) **Less than significant impact.** The project would enhance access to the existing facilities in the Berkeley Marina. Facilities may experience an increase in usage from project activities; however, uses are not expected to exceed capacity. The Marina facilities can accommodate additional usage. No new facilities would be needed to accommodate additional visitors. Impacts of increased usage of facilities would be less than significant. (City of Berkeley 2002; City of Berkeley 1986)

4.3.14 RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☑	☐
Does the project:				
b) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☑	☐

Discussion:

a) **Less than significant.** The project is designed to increase bicycle and pedestrian access to the Marina and neighboring recreational areas. While improved access to the Marina via the Bay Trail Extension could draw recreational users away from the neighboring Eastshore State Park and Cesar Chavez Park, the overall effect of the project is expected to increase usage of all of these areas through attracting greater numbers of recreationalists to this interconnected trail system. This is considered a beneficial impact because it is in support of City of Berkeley plans, policies, and identified actions and the Eastshore State Park General Plan.

The proposed project would renovate the western portion of Horseshoe Park, reducing the Park's total size by approximately 3,500 square feet and useable area by approximately 750 square feet. This is not considered to be a negative impact to recreation since the reduction in Park size would be offset by an increased access to the entire Marina area.

b) **Less than significant with mitigation incorporated.** Implementation of the proposed project would have an overall beneficial effect on recreational uses in the project vicinity and be in support of several recreation-related plans, policies, and actions set forth by the City of Berkeley. Any potentially significant impacts to the environment as a result of project implementation would be mitigated to less than significant levels. The project is consistent with all key plans guiding land use within the project site, including the Eastshore State Park General Plan, City of Berkeley 2002 General Plan, the 2002 Draft Marina Master Plan, the 1986 Berkeley Waterfront Master Plan, and the 2000 Berkeley Bicycle Plan. (City of Berkeley 2001; City of Berkeley 1986; City of Berkeley 2003b; City of Berkeley 2000)

Construction activities could have an adverse physical effect on recreational use of the area; however, this effect would be less than significant since the construction is temporary and phased such that small portions are constructed at one time. During construction of the Strawberry Creek pedestrian bridge pile drivers will be used. Mitigation Measure 4.3.11-2 from Noise calls for posting of signs at a 500-foot radius from the pile driving activities. This would have some effect on recreational use of the area, but the effect would be less than significant since it would be temporary and no standing recreational facilities are within 500 feet of Strawberry Cove.

Build out of the proposed project will be phased over a number of years, depending on I–80 bicycle/pedestrian overcrossing to the southwest corner of the East Lawn of the Marina. During construction, portions of the existing trail and access to nearby facilities could be inaccessible, which could be considered a significant impact on recreation. Implementation of the following mitigation measure would assure a less than significant effect to facility access.

> **Mitigation Measure 4.3.14-1**. During the construction of each segment of the project, surrounding facilities shall remain open to the extent feasible. Temporary, alternate entrances and access paths shall be provided in order to prevent inaccessibility to any of the recreational opportunities at the Marina where possible.

4.3.15 TRANSPORTATION/TRAFFIC

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the project:				
a) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☑	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☑
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☑
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☑	☐	☐
e) Result in inadequate emergency access?	☐	☑	☐	☐
f) Result in inadequate parking capacity?	☐	☑	☐	☐
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☑

Discussion:

a) **Less than significant impact.** The project may result in small increases or decreases in existing levels of vehicle traffic to the area. The main road that could potentially see greater traffic volume is University Avenue leading into Marina Boulevard, Seawall Drive, and Spinnaker Way as well as to the parking lots of the Marina. This increase should not be substantial in relation to current traffic load. The project would increase parking in the Marina by approximately fifteen spaces near the Yacht Club. The area may see decreases in traffic because the Bay Trail Extension would connect the Marina with a pedestrian/bicycle path and the existing Bay Trail, thus encouraging alternative transportation to the site.

Removal of Seawall drive may cause some congestion because traffic will be redirected through the parking lots. The redirection will require decreased speeds and stop and go motion as cars move in and out of parking spaces. The parking lot renovations will be redesigned to appropriately handle traffic flow. There will be a less than significant impact from the project on traffic. (City of Berkeley 2001; 2M Associates 2002)

b) **No impact.** The project as proposed would not likely cause any local or regional designated transportation facilities in the area to exceed Berkeley congestion management standards. The project is estimated to generate very low levels of vehicle activity during peak commute periods because the Marina is a recreational location that dead-ends. During periods of peak vehicle trip generation (weekends), the surrounding background levels on I-80/I-580 are lower and standards would not be impacted. (City of Berkeley 2001)

c) **No impact.** The project would have no impact on air traffic patterns.

d) **Less than significant impact with mitigation incorporated.** The proposed project could increase hazards due to design features. Certain areas of the Bay Trail Extension will involve multiple use intersections, such as at the entrance around Hs. Lordships. There is a risk of bicyclists or rollerbladers endangering pedestrians crossing the trail to enter Hs. Lordships or Skates restaurants. Impacts would be reduced to less than significant levels by the inclusion of safety signs and pavement markings indicating a multi-use intersection. The Bay Trail posts a speed limit of 15 mph for cyclists, which would preclude high-speed activity on the multi-use trail and reduce hazardous impacts to pedestrians. Currently, there are no speed limits posted in the parking lots. The renovated parking lot design could increase hazards to pedestrians walking through the lots and to cars moving in and out of spaces. Mitigation Measure 4.3.15-1 would reduce impacts to a less than significant level. (City of Berkeley 2001; 2M Associates 2002)

> **Mitigation Measure 4.3.15-1.** The maximum speed limit allowed in parking lots shall be 15 miles per hour. Signs shall be posted at the entrance of lots and within lots indicating speed limits and warning of a congested area.
>
> NOTE: Police casually patrol the Marina and will continue to enforce speed limit regulations.

e) **Less than significant impact with mitigation incorporated.** An emergency evacuation route extends all the way down University Avenue to where it intersects with Marina Boulevard at the entrance of the Marina. The project would not interfere with emergency response routes or plans. Project construction would involve the removal of part of Seawall Drive from Segments 3 and 5. Traffic will be re-designated through Hs. Lordships parking area. The parking lots servicing docks N-O and the Yacht club would be renovated with additional parking spaces. Fire and emergency access will be provided through these lots. Mitigation Measure 4.3.13-1 from Public Services would ensure less than significant impacts to emergency access as a result of emergency access relocation through parking lots. (City of Berkeley 2001; 2M Associates 2002; Uniform Fire Code)

f) **Less than significant impact with mitigation incorporated.** The proposed project will involve the renovation and re-designation of several parking areas including:

- Segment 2: The parking area near the Dry Boat Storage
- Segment 3: Hs. Lordships parking
- Segment 3: Parking along Seawall Drive
- Segment 5: Parking in Docks N-O and Yacht Club

The total parking capacity of the area south of University Avenue will remain the same. There will be a net increase of 10 designated parking spaces as a result of the project. The renovated parking area servicing Docks N-O and the Yacht club will provide an additional 18 parking spaces including handicapped parking. Handicapped parking will be designed and designated in accordance with ADA Regulations for Title III regarding parking Standards for Accessible Design establishing minimum standards for ensuring accessibility when designing and constructing a new facility or altering an existing facility. Implementation of the following mitigation measure would ensure less than significant impacts as a result of parking lot renovation.

Mitigation Measure 4.3.15-2. Final parking lot design plans that include a description of renovated areas, new lot features, parking space and access route layout, and any other safety and design features shall be submitted to the City for approval before build-out.

The project would result in beneficial impacts to parking capacity. (ADA 1994)

g) **No impact.** The proposed project would not conflict with adopted policies and plans supporting alternative transportation. According to the Berkeley Bicycle Plan adopted April 2000, Policy 1.3, all development projects' impacts on bicycling and bicycle facilities should be consistent with General Plan policies; should not have an impact on existing bike networks; should not alter bike travel patterns or restrict use; and should provide for the safety of future bicycle operations. The project would be consistent with the Bicycle Plan. The project would be beneficial because it connects the bicycle over crossing from I-80/I-580 and would improve bicyclist safety by providing routes off of roadways.

The proposed project would also encourage use of public transportation. The AC 51 bus line has two service stops along the Berkeley Trail Extension. Increased use of public transportation is encouraged in the City of Berkeley General Plan. (City of Berkeley 2001; City of Berkeley 2003a; 2M Associates 2002; City of Berkeley 2000)

4.3.16 UTILITIES AND SERVICE SYSTEMS

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the project:					
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☑
b)	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☑
c)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☑
d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☑
e)	Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☑

4.3.16 UTILITIES AND SERVICE SYSTEMS

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☑	☐
g)	Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☑	☐

Discussion:

a) **No impact.** The project would not exceed wastewater treatment requirements because sufficient treatment capacity is available to serve the relatively small project needs. No restrooms are proposed. A kayak and windsurfing rinse station is proposed near Hs. Lordships; wastewater generated from the hose would be insignificant. (EBMUD 2003)

b) **No impact.** The project would not have any water or wastewater service needs, other than the kayak and windsurfing rinse station. A slight increase in use at the Marina may increase usage of restrooms and other facilities but this increase is expected to be minimal and well within the current capacity of existing facilities. Construction of new wastewater treatment facilities or expansion of existing facilities would not be necessary. (EBMUD 2003)

c) **No impact.** In most cases, drainage from the Bay Trail Extension and adjacent turf areas will be directed to grassy swales or enhancement wetlands. These swales would allow the storm water to be controlled on-site and would be sited and designated to reduce contamination of runoff into the Bay. Where the trail passes through already paved areas, existing drainage systems will be used. The project would not necessitate the construction of new storm water drainage facilities or the expansion of existing facilities.

d) **No impact.** Existing water supplies would serve project needs. A kayak and sailboat rinse station is proposed near Hs. Lordships. The water necessary for this hose would come from existing sources and is considered insignificant. No new or expanded entitlements would be needed. As part of the project, approval of the water line, and water hookups, and review of water needs would be performed by East Bay Municipal Utility District.

e) **No impact.** The project would not cause increased demand for wastewater treatment.

f) **Less than significant impact.** During the construction phase of the project, solid waste and vegetative debris would be produced from the dismantling of Seawall Drive and clearing of the trail. Waste in Berkeley is taken to the Berkeley transfer station, which recycles construction and vegetation waste. This transfer station is operated by the City of Berkeley. Waste from the Berkeley transfer station is transported to one of three landfills: the Altamont Landfill, the Tri-Cities Landfill, or the Vasco Road Landfill. All of these landfills possess sufficient permitted capacities to accommodate the project's disposal needs for solid waste during construction and operation. During operation, there may be a small increase in solid waste generated by park users. This increase would not require expansion of any landfill. (City of Berkeley 2001; CIWMB 2001)

g) **Less than significant impact.** During operation, there may be a small increase in solid waste generated by park users. This increase is expected to be small and would not require expansion

of any landfill. The project would comply with federal, state, and local statutes and regulations related to solid waste. (CIWMB 2001)

4.3.17 MANDATORY FINDINGS OF SIGNIFICANCE

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Does the project:					
a)	Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☑	☐
b)	Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☑	☐
c)	Have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☑

Discussion:

a) **Less than significant impact.** The project would not threaten the existence of any rare or endangered plant or animal. Project activities would be sited to avoid effects on special-status species. The project would not eliminate important examples of the major periods of California history or prehistory. No additional mitigation is required.

b) **Less than significant impact.** The project would not have impacts that would be considered cumulatively considerable because it would have minimal impacts with the implementation of the mitigation measures. The project would have beneficial effects on human beings and the environment.

c) **No impact.** The project has a beneficial effect on human beings by enhancing and restoring the environment of the project site. The project would provide beneficial additional recreational opportunities.

4.4 References

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5: RESPONSE TO COMMENTS

5.1 Introduction

The Draft IS and Proposed MND were sent to the State Clearinghouse for official review from September 19, 2003 to October 22, 2003. Sixteen letters of comment were received in both hard copy and electronic formats. Comments were received from the general public (9), state agencies (4), and special interest groups/organizations (3). A public hearing was held on October 8, 2003, to solicit verbal comments on the Draft document. Three specific comments were recorded at the meeting and responses to those comments are included in this chapter.

5.2 Comments Received

The comments received on the Draft IS/MND have been grouped by agency, public individual, and organization and given a letter designation, A, O, P or PH as listed below.

STATE AGENCIES

A1 California Department of Toxic Substances Control

A2 California Department of Toxic Substances Control

A3 California State Coastal Conservancy

A4 California Department of Parks and Recreation

ORGANIZATIONS

O1 Friends of Five Creeks

O2 Sierra Club

O3 Bicycle-Friendly Berkeley Coalition

GENERAL PUBLIC

P1 Sheila Andres

P2 Phil Morton

P3 David Coolidge

P4 Bruce Nesbitt

P5 Charley Paffenbarger

P6 Corinne Greenberg Paffenbarger

P7 Lillian Fujii

P8 Peter Rauch

P9 Jim McGrath

PUBLIC HEARING (October 8, 2003)

PH1 Robert Cheasty – Citizens for Eastshore State Park

PH2 Ed Bennett

PH3 Norine Smith

5.3 Comments and Responses

COMMENT AND RESPONSE DESIGNATIONS

This section presents the comments and the responses to all of the comments received on the Draft IS and Proposed MND during the review period. Each comment letter received is numbered according to the numbering system identified above (A, O, P and PH). Each comment in each letter received has a number (i.e. P1-1).

This section provides responses to environmental issues raised regarding the environmental effects of the proposed project. The decision-makers, the City of Berkeley, consider the information contained in this Final IS and MND, as well as comments and responses on the Draft document. Comments made on the design or merits of the project are noted. Only comments relating to the environmental impact analysis are addressed in the Response to Comments.

All changes made to the Draft IS and Proposed MND in preparing the Final IS/MND are described in this chapter and are referenced by the page number or mitigation measure in which the original text appears in the Draft IS and Proposed MND. New text added to the Draft IS/MND for the Final IS/MND is <u>underlined</u> in this section and deleted text is ~~stricken~~. Revisions to the Final IS/MND were made according to changes outlined in this chapter.

PROJECT CHANGES RESULTING FROM COMMENTS

Some changes to the project description and environmental analysis were made in response to public comment. No substantial revisions that would merit recirculation as defined by 15073.5 (b) of Title 14 of CEQA were made to the project after public comment. Revisions included clarifications to mitigation and analysis, and changes in the project description that further reduce environmental impacts; namely, reducing the width of the pedestrian bridge and removing light structures in the Eastshore State Park section of the project. All changes are described in this chapter.

Department of Toxic Substances Control

Edwin F. Lowry, Director
1001 "I" Street, 25th Floor
P.O. Box 806
Sacramento, California 95812-0806

Winston H. Hickox
Agency Secretary
California Environmental
Protection Agency

Gray Davis
Governor

September 25th, 2003

Deborah Chermin
City of Berkeley. Dept. of Parks, Recreation & Waterfront
2180 Milvia Street, 3rd Floor
Berkeley, CA 94704

Re: Bay Trail Extension to the Berkeley Marina

The Department of Toxic Substances Control (DTSC) is in receipt of the environmental document identified above. Based on a preliminary review of this document, we have determined that additional review by our regional office will be required to fully assess any potential hazardous waste related impacts from the proposed project. The regional office and contact person listed below will be responsible for the review of this document in DTSC's role as a Responsible Agency under the California Environmental Quality Act (CEQA) and for providing any necessary comments to your office:

A1-1

Barbara Cook
Site Mitigation Branch
700 Heinz Ave, Suite 200
Berkeley, CA 94710

If you have any questions concerning DTSC's involvement in the review of this environmental document, please contact the regional office contact person identified above.

Sincerely,

Guenther W. Moskat

Guenther W. Moskat, Chief
Planning and Environmental Analysis Section

cc: Barbara Cook
Site Mitigation Branch
700 Heinz Ave, Suite 200
Berkeley, CA 94710

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Web-site at www.dtsc.ca.gov.

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A1 *Mr. Guenther W. Moskat, Chief*
Department of Toxic Substances Control
1001 I Street, 25th Floor
P.O. Box 806
Sacramento, CA 95812

A1-1 **Response.** The comment is noted. The Regional office reviewed the IS/MND and provided additional comment on October 10, 2003.

Department of Toxic Substances Control

Edwin F. Lowry, Director
700 Heinz Avenue, Suite 200
Berkeley, California 94710-2721

Vinston H. Hickox
gency Secretary
alifornia Environmental
Protection Agency

Gray Davis
Governor

October 10, 2003

Deborah Chermin
City of Berkeley – Dept. of Parks, Recreation & Waterfront
2180 Milvia Street, 3rd Floor
Berkeley, California 94704

Dear Ms. Chermin:

Thank you for the opportunity to comment on the Draft Design Plan and Initial Study/Mitigated Negative Declaration (SCH # 2003092068) for the Bay Trail Extension to the Berkeley Marina. As you may be aware, the California Department of Toxic Substances Control (DTSC) oversees the cleanup of sites where hazardous substances have been released pursuant to the California Health and Safety Code, Division 20, Chapter 6.8. As a potential Responsible Agency, DTSC is submitting comments to ensure that the environmental documentation prepared for this project to address the California Environmental Quality Act (CEQA) adequately addresses any required remediation activities which may be required to address any hazardous substances release.

The Initial Study states that soil excavation will occur in project areas where hazardous materials were used, stored and disposed of, and are known to be present in surface and subsurface soils. In the Berkeley Brickyard area, chemicals of potential concern (COPCs) identified in soil and groundwater include lead, zinc, arsenic, chromium, total recoverable petroleum hydrocarbons (TRPHs), benzene and total petroleum hydrocarbons as gasoline (TPHg). COPCs found in soil gas samples include methane, methylene chloride, chloroform, vinyl chloride, benzene, toluene, tetrachloroethylene (PCE), trichloroethylene (TCE) and 1,1,1-trichloroethane (1,1,1-TCA). The Study further states that soils excavated from the Berkeley Brickyard area will be tested for petroleum hydrocarbons and metals, and properly disposed of, in coordination with the California Department of Toxic Substances Control, to ensure proper clean up and disposal of contaminated soils. A2-1

DTSC can assist your agency in overseeing characterization and cleanup activities through our Voluntary Cleanup Program. A fact sheet describing this program is enclosed. We are aware that projects such as this one are typically on a compressed schedule, and in an effort to use the available review time efficiently, we request that DTSC be included in any meetings where issues relevant to our statutory authority are discussed.

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Web-site at www.dtsc.ca.gov

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Please contact Monica Gan of my staff at (510) 540-3748 if you have any questions or would like to schedule a meeting. Thank you in advance for your cooperation in this matter.

Sincerely,

Barbara J. Cook, P.E., Chief
Northern California - Coastal Cleanup Operations Branch

Enclosures

cc: without enclosures

Governor's Office of Planning and Research
State Clearinghouse
P.O. Box 3044
Sacramento, California 95812-3044

Guenther Moskat
CEQA Tracking Center
Department of Toxic Substances Control
P.O. Box 806
Sacramento, California 95812-0806

A2 *Ms. Barbara J. Cook, P.E., Chief*
Northern California Coastal Clean-up Operations
700 Heinz Avenue, Suite 200
Berkeley, California 94710

A2-1 **Response.** The comment is noted. Mitigation Measure 4.3.7-3 requires coordination with the California Department of Toxic Substances Control (CDTSC) to ensure the proper cleanup and disposal of any contaminated soil encountered during construction. The City will work through the Voluntary Cleanup Program at the CDTSC. The following revisions were made to Mitigation Measure 4.3.7-3 on page 4-46.

> **Mitigation Measure 4.3.7-3.** The City shall coordinate with the California Department of Toxic Substance Control (CDTSC) Voluntary Cleanup Program and take the necessary steps to ensure proper cleanup and disposal of any contaminated soils encountered during construction.

Subject: FW: Email from Brenda Buxton Coastal Conservancy
Date: Tuesday, November 25, 2003 10:59 AM
From: Tania Treis <treis@mha-inc.com>

From: Brenda, Buxton [bbuxton@scc.ca.gov]
Sent: Tuesday, September 23, 2003 11:49 AM
To: Chernin, Deborah
Subject: Neg Dec
>
> Deborah:
>
> I have looked at the Neg Dec and think it was very thorough and covered all
> the bases...in fact, it seems to go out of it's way to mitigate. Replacing
> trees at a ratio of 4:1? Do you even have enough areas to plant that many
> trees? Maybe you could add a sentence (if true) about the poor state of
> [some of]
> the trees, and that many are dying anyway...
>
> As I think I told you, I'll be out starting Thursday until mid-October. So
> unless you want to talk to me in the next few days, I'll catch up with you
> on Aquatic Park et al in October.
>
> Brenda Buxton
> CA State Coastal Conservancy
> Phone: 510-286-0753
> Fax: 510-286-0470
>

A3-1

A3 *Ms. Brenda Buxton*
California State Coastal Conservancy
bbuxton@scc.ca.gov

A3-1 **Response.** The 4:1 tree replacement ratio is both very feasible and appropriate given the character of the landscape around the Marina and the wind protection function that the trees provide in some locations. There will be adequate room to accommodate all of these trees. The following text was added on page 4-30, under letter "b" after the first sentence in order to describe the current condition of trees on-site.

> Many of the trees proposed for removal were noted to be diseased and of poor health and/or unstable structural condition.

State of California • The Resources Agency
Gray Davis, *Governor*

DEPARTMENT OF PARKS AND RECREATION
Ruth G. Coleman, *Director*
Bay Sector - Diablo Vista District
125 University Ave.
Berkeley, CA 94710-1616
510-540-2573

October 21, 2003

Deborah Chernin
Project Manager, City of Berkeley
Department of Parks, Recreation, and Waterfront
2180 Milvia Street, 3rd Floor
Berkeley, CA 94610

Dear Ms. Chernin:

Bay Trail Extension to the Berkeley Marina
Eastshore State Park

Thank you for the opportunity to comment on the Draft Initial Study/Mitigated Negative Declaration for the Bay Trail Extension to the Berkeley Marina Project. California State Parks (State Parks) and East Bay Regional Park District (District) would like to take this opportunity to comment jointly on this proposal. The proposed Bay Trail extension in this area is an important element of the approved General Plan for Eastshore State Park.

The proposed section of trail through the Brickyard area of Eastshore State Park cuts through an area (near the present Sea Breeze concession facility) which will undergo extensive planning and future development. The Facilities Concept Plan for the Brickyard will soon be underway as part of the initial park development. We anticipate this plan being completed by June 2004, possibly sooner. The planning area boundary runs from University Ave, across the Strawberry Creek out fall to the end of Brickyard Spit, across Brickyard Cove to the Frontage Road and back. We feel it is premature to include this portion of the trail in the proposed project until overall planning is completed. Final alignment, design and construction would be subject to further consideration in a State-approved Facilities Concept Plan that is being prepared. After the completion of the Facilities Concept Plan and associated environmental investigations and enhancements, routing of the diagonal portion of the trail can be completed. A4-1

It is possible that a temporary trail could be routed through the Brickyard area in the interim with the approval of State Parks and the District. This trail should be explicitly temporary in nature and not conflict with initial and future developments in this portion of the park. We do not feel that the asphalt trail with lighting that is depicted in this environmental document is temporary. We are concerned about the apparent permanence of these structures in an area that is in the process of long-term planning efforts. We would like to site the appropriate location for these permanent facilities in accordance with our Facility Concept Plan.

Similarly, final location, design, and construction of interpretative signage in the Park would also be subject to further consideration in a State-approved Facilities Concept Plan. A4-2

Page 1-3 of the environmental document references a "Western Touchdown Plaza" sponsored by the City of Berkeley. We would appreciate a description of what this concept would A4-3

be on the State park property. This project is not identified in the General Plan for the park unit and may not be consistent with the Plan. In addition, for any City improvements on the State Park property which receive final State approval there would need to be provisions for the City to operate and maintain the improvements.

We are concerned that the removal of soil as depicted in the environmental document may potentially expose the public to Chemicals of Potential Concern (COPCs) by removing the soil layer covering possible COPCs that may lie underneath. The document discusses the possible COPCs in removed soil but does not address the possible exposure to COPCs by removing the soil atop possible COPCs. Please address this issue. A4-4

Proposed trail lighting may adversely affect birds utilizing Strawberry Creek Cove. Please show proposed locations for lighting structures in the vicinity of Strawberry Creek Cove and address the potential for impacts on wildlife. A4-5

We would like the City to purchase trash receptacles that are not accessible to animals that may eat out of them (including but not limited to raccoons, skunks, opossum, squirrels, and rats). This will help ensure that predator numbers do not artificially increase due to increased visitor facilities. Thus we can better preserve wildlife that is utilizing the park as habitat. A4-6

We prefer that the City does not use hay for sediment control during construction. We have found new invasive, non-native plant species that come into parks from hay. Sediment fencing or similar is preferable. A4-7

State Parks and the District have jointly prepared these comments. We look forward to working with your input to complete the Bay Trail Extension. Thank you for the opportunity to comment on this exciting project.

Sincerely,

Victoria Seidman
Associate Resource Ecologist

Cc: Brian Hickey, Bay Sector Superintendent, California State Parks
Larry Tong, Interagency Planning Manager, East Bay Regional Park District
Stuart Hong, Senior Landscape Architect, California State Parks

A4 *Victoria Seidman*
Associate Resource Ecologist
California State Parks Department
Bay Sector – Diablo Vista District
125 University Avenue
Berkeley, CA 94710

A4-1 **Response.** The proposed alignment and design plan has been modified to specifically refer to this section as an "interim" alignment that will involve a temporary trail connection that may be modified by the State Department of Parks and Recreation in the future. The section of trail between the existing I-80 overcrossing and the Strawberry Creek Bridge is approximately 400 feet in length and represents about 5% of the overall Berkeley Bay Trail Extension project. The plan modification calls for a basic multi-use trail and safety signage. For continuity of the trail experience and safety, the use of asphalt will be retained. However, as an interim alignment, construction specifications will reflect a trail of minimal durability and longevity.

It is recognized that the Facilities Concept Plan for the Brickyard area to be prepared by the State Department of Parks and Recreation may show a permanent alignment for the trail in a different location. It is also recognized that, as part of a much greater project, it may be years before funding and implementation of the Brickyard improvements may take place. If the permanent alignment as shown in the Facilities Concept Plan is feasible to construct in the short-term, and the associated environmental review has been completed, the Berkeley Bay Trail Extension will be designed as a permanent facility based on that alignment.

On page 2-2, Table 2, Segment #1, text was added to note this section as a temporary alignment. The following changes were also made to the table describing Segment #1 on page 2-4 through 2-5 of the Draft IS:

SEGMENT	PROGRAM
Segment #1: From: Ramp of I-80 Overcrossing To: Southwest corner of East Lawn From: Bay Trail at University Avenue To: Bay Trail Extension east of Strawberry Creek Bridge	**Trail** • 12' wide multi-use trail (asphalt) from I-80 bicycle/pedestrian overcrossing to Strawberry Creek Bridge (asphalt). <u>Note: this is an interim alignment that will involve a temporary trail connection that may be modified by the State Department of Parks and Recreation in the future.</u> • 12' wide multi-use trail (asphalt) from Bay Trail to Strawberry Creek Bridge • 12' wide smooth-surfaced trail on Strawberry Creek Bridge (see below) • 12' wide multi-use trail (asphalt) from Strawberry Creek Bridge to East Lawn **Strawberry Creek Bridge** • Location: as close to University Avenue as possible extending out to edge of concrete vault to cover existing Strawberry Creek pipe • Design: clear span/bridge footings above hi water line

- Bridge width: 12' wide trail with ~~expanded minimum width of approximately 4' to accommodate views of the creek outfall area~~
- Railing height: conform to multi-use trail standards/~~interpretive displays that accommodate ADA requirements integrated into railing~~
- Bridge color: blend with surrounding soil/vegetation
- Bridge profile: low with deck at or near grade of University Avenue~~/transparent railings~~
- Bridge railings: vertical design to render railing as transparent as possible
- Bridge surface: smooth/conform to ADA requirements

~~**Related Access Facilities**~~

- ~~Benches/seat walls facing Bay between Strawberry Creek Bridge and East Lawn~~
- ~~Bus stop facilities adjacent to the Trail at University Avenue - 2 locations~~

~~**Interpretive Facilities**~~

- ~~Interpretive stations at:~~
  - ~~On Strawberry Creek Bridge (2 signs)~~
  - ~~University Avenue shoreline~~
  - ~~East Lawn shoreline~~

Safety Facilities

- Trail and vehicular safety signs/markings for crossing of SeaBreeze entrance off of University Avenue
- Trail and vehicular safety signs/markings for truck crossing of trail from SeaBreeze parking area to existing stockpiled materials area
- ~~Trail / area lighting along trail east of Strawberry Creek Bridge~~

Landscape

- University Avenue adjacent to SeaBreeze market, edge treatment and landscaping consistent with existing trail along West Frontage Road
- Removal of ice plant adjacent to Strawberry Creek Bridge
- Removal of some non-native vegetation in upland areas
- Native herbaceous hydroseeding of all disturbed areas

A4-2 **Response.** The proposed alignment and design plan have been modified within the Eastshore State Park. Interpretive stations on the Strawberry Creek Bridge and elsewhere, benches/seatwalls, and shelters at University Avenue bus stops have been removed from the program. These features may be added by the State pursuant to the Facilities Concept Plan for the Brickyard and associated environmental reviews.

A4-3 **Response.** The Western Touchdown Plaza is mentioned on page 1-3 as a potential project that is identified in the Berkeley Marina Master Plan or the Eastshore State Park

General Plan. Section 1.3 states that while recognizing and accommodating these other potential shoreline or public access enhancements, the proposed project is independent of them. The Western Touchdown Plaza is an independent project, the design of which is not a part of the Bay Trail Extension to the Berkeley Marina project.

A4-4 **Response.** The possibility exists that removal of soil atop Chemicals of Potential Concern (CPOCs) could pose a risk of exposure of those CPOCs. Section 4.3.7 Hazards and Hazardous Materials, letter "b" was revised to read:

> **b) Less than significant impact with mitigation incorporated.** Minimal ground disturbance and excavation is necessary for construction of each segment of the trail. In certain locations some tree removal is necessary. Construction of the pile-supported bridge across Strawberry Cove would result in minimal surface and subsurface disturbance. The soils of this area contain some chemicals of potential concern (COPC) due to previous landfill activities (see Section 4.2.2, Local Setting). Removed soil could contain CPOCs, or could expose CPOCs if the soil atop contaminated layers is removed. Strawberry Cove also contains perennial pepperweed (*Lepidium latifolium*), which is believed to be toxic and is an invasive plant (Refer to Section 4.3.4 Biological Resources).
>
> Implementation of Mitigation Measures 4.3.4-3 from Biological Resources and 4.3.7-1, 4.3.7-2 and 4.3.7-3 below, would reduce risks of hazardous materials release into the environment to a less than significant level.
>
> > **Mitigation Measure 4.3.7-1.** Excavated soils from all non-paved areas should be handled such that dust is controlled, minimizing exposure to construction crews and recreationalists.
> >
> > **Mitigation Measure 4.3.7-2.** Excavated and freshly exposed soils in the Berkeley Brickyard shall be tested for petroleum hydrocarbons, metals and CPOCs. Prior to disposal or reuse, ~~excavated soils from project areas overlying the Berkeley Brickyard shall be tested for petroleum hydrocarbons and metals.~~ any excavated soils found to contain contaminants at levels considered unsafe for human exposure or environmental exposure shall be disposed of appropriately. If exposed soil is found to contain CPOCs, a layer of uncontaminated, clean soil shall be imported and filled over the existing soil to prevent exposure of CPOCs in the surface layer.
> >
> > **Mitigation Measure 4.3.7-3.** The City would coordinate with the California Department of Toxic Substance Control (CDTSC) and take the necessary steps to ensure proper cleanup and disposal of any contaminated soils encountered during construction.
>
> Once the project construction period is over, no routine transport, use, production, upset, or disposal of hazardous materials would occur during normal use of the Bay Trail Extension. Some hazardous materials, such as fuel and oil, are stored at designated locations in the Berkeley Marina. There will be no hazardous material storage sites along the Bay Trail Extension. Therefore, no upset or accidents involving the release of hazardous materials into the environment are reasonably foreseeable. (2M Associates 2002; City of Berkeley 2002; 3E Engineering 1989)

A4-5 **Response.** Trail/area lighting has been removed from the alignment and design plan within the Eastshore State Park. These features may be added by the State pursuant to the Facilities Concept Plan for the Brickyard and associated environmental reviews (see also

response to Comments A4-1 and A4-2). Text changes were made on pages 2-4 through 2-5 above and on page 2-9 as follows.

> **Lighting.** Segments of the Bay Trail Extension where new area lighting will be used are:
>
> - ~~Segment 1: east of the Strawberry Creek Bridge~~
> - Segment 3: from Hs. Lordship's to and along the west shoreline
> - Segment 4: entire plaza area
> - Segment 5: entire trail segment along the west shoreline
>
> All lighting standards along the Bay Trail Extension will be unified using a single design motif.

A4-6 **Response.** The potential for increased predators due to increased trash from visitors could create a significant impact on wildlife that utilize the park as habitat. Section 4.3.4 Biological Resources, letter "d" was revised as follows:

> **d) Less than significant impact with mitigation incorporated.** The project would not have a significant impact on movement of wildlife species because construction would occur in disturbed and developed upland areas with marginal habitat value for wildlife.. The project would not affect the movement of migratory fish in Strawberry Creek, because (1) the creek is culverted at the project site and for a substantial distance upstream; and (2) the steelhead trout (*Oncorhynchus mykiss*), an anadromous (migratory) fish species, is apparently absent from Strawberry Creek. No other migratory fish are likely to move through the site.
>
> Several wildlife species utilize the Marina as habitat. An increase in visitors that may accompany improved facilities may also increase the amount of trash in receptacles along the path. Trash can potentially attract predators (such as skunks, raccoons, rats, squirrels, and opossum) and artificially increase populations threatening other species. The following mitigation measure would reduce these potential impacts to less than significant levels
>
> > **Mitigation Measure 4.3.4-6.** The City of Berkeley shall use trash receptacles within the Eastshore State Park that are designed to be inaccessible to animals.

A4-7 **Response.** The comment is noted that hay used for sediment control during construction can facilitate the proliferation of non-native species. Section 4.3.6 Geology and Soils, Mitigation Measure 4.3.6-2 was revised as follows

> **Mitigation Measure 4.3.6-2.** Prior to ground disturbance, a grading plan shall be submitted to the City Public Works Department for review. The grading plan shall include a construction erosion control plan with Best Management Practices designed to minimize sediment in site runoff during construction. The provisions shall include: limiting the size of areas disturbed, watering of disturbed soils twice daily, avoiding long unbroken flow paths, making drainage swales broad and flat, and routing off-site drainage around newly disturbed areas. The grading plan shall also have provisions for minimization of grading and excavation and for a balance of cut and fill. Trapping sediment before it leaves the construction site would minimize any potential sedimentation of waterways. This would be accomplished through the use of riprap, ~~hay bales~~ or siltation fencing. (Sediment fencing is preferred over hay bales because use of hay has been found to proliferate the expansion of invasive and non-native species.) Any disturbed areas should be revegetated as soon as

possible once construction is completed; where appropriate, topsoil should be stockpiled and used for the revegetation of disturbed areas. This plan shall be implemented during project construction.

Chernin, Deborah

From: F5creeks@aol.com
Sent: Saturday, September 20, 2003 6:19 PM
To: Chernin, Deborah
Cc: Caronna, Lisa; Marchetti, Clifford; Smith, Brad
Subject: Bay Trail Extension EIR

To: Deborah Chernin
From: Susan Schwartz
Thanks for sending me a copy of the EIR for the proposed extension of the Bay
Trail to the Marina. I always have mixed feelings on whether the city should
spend money on such things, but it did save me time.

I appreciate the money-saving change in the bridge a Strawberry Creek. (My, I
do sound thrifty today, don't I?) I think that in addition to economy, a

bridge next to University will cover less habitat and do a better job of hiding
the ugly sewer pipe at the culvert. (Even though the EIR is correct that

non-natives cover much of the sandy beach at the creek mouth, we are getting rid of
them pretty fast, and natives are coming in on their own, improving both

habitat and looks.)

I have one other comment: In final design of the trail south of University,
between Strawberry Creek and the East Lawn, I hope the trail can be kept rather
closer to University than the conceptual sketch and Section 2.2 indicate. I
don't mean that it should run right next to the street -- some green and some
curves are desirable. But this pleasant, underutilized lawn with lovely views
would be a good spot for informal games and picnics, with easy car access and
plenty of parking, next to what in future I hope will be a rather attractive
rocky beach. Keeping the trail fairly close to University Avenue will make it
more usable for these purposes.

01-1

I won't be able to come to the October 8 meeting, so I'd appreciate your

distributing this to the Waterfront Commission. Thanks for your attention,

O1 *Susan Schwartz*
Friends of Five Creeks
F5creeks@aol.com

O1-1 **Response.** The comment on the design of the trail south of University Avenue is noted. This area is under the State Parks jurisdiction and will be constructed as a temporary trail (Refer to comment A4-1 above).

Chernin, Deborah

From: Norman La Force [n.laforce@comcast.net]

Sent: Sunday, October 19, 2003 1:48 PM

To: Chernin, Deborah

Cc: Joanne Drabek; Sarah Ginskey; Russ Wilson; Corinne Greenberg; Kristin Ohlson; Peter Rauch; Kitty McLean; Ed Bennett; Teddi Baggins; Brian Parker; Afeinstein@goldengateaudubon.org; cheastylaw@netscape.net; eastshorepark@hotmail.com

Subject: Bay Trail Extension-Mitigated Negative Declaration

Dear Ms. Chernin:

These are the comments of the Sierra Club on the proposed Mitigated Negative Declartion for the Bay Trail Extension to the Berkeley Marina.

While I know the staff had presented the proposed trail extension at a meeting of CESP and discussed lighting, I do not see any analysis of lighting impacts on wildlife in the document. In particular, the document does not adequately address lighting impacts from the foot bridge at Strawberry Creek outlet on wildlife that would use the mudflats adjacent to the bridge. 02-1

The Sierra Club is also concerned about the denigration of that wetland/mudflat habitat as being of minor importance. As you know, the Bay has experienced massive fill over the past 150 years. Any amount of mudflat habitat that remains increases in its importance for wildlife. The Club believes that the document should be revised to acknowlege the importance of these small areas and to identify the best methods for ensuring their continued viability as habitat for wildlife, including, possibily, the reduction in building adjacent to those areas. 02-2

The Club also joins in the comments of Corinne Greenberg and Charles Paffenbarger.

Yours,

Norman La Force

Chernin, Deborah

From: Norman La Force [n.laforce@comcast.net]
Sent: Sunday, October 19, 2003 1:52 PM
To: Chernin, Deborah
Subject: Bay Trail Extension to Marina-Mitigated Negative Declaration

Dear Ms. Chernin:

The comments I just sent were in my capacity as Chair, Sierra Club's East Bay Public Lands Committee and as Legal Chair of the Sierra Club San Francico Bay Chapter.

Norman La Force

O2 *Norman La Force*
Legal Chair
Sierra Club, San Francisco Bay Chapter
n.laforce@comcast.net

O2-1 **Response.** Refer to response A4-5.

O2-2 **Response.** The importance of mudflat habitat is acknowledged. The project would not have a substantial impact on mudflat habitat or associated wildlife. The bridge has been redesigned. Based on comments provided by State Parks, the proposed bridge has been reduced in size and moved closer to University Avenue. It will be 12 feet wide (13.5 feet wide with railings) and approximately 110 feet long, and will extend less than 1 foot beyond the outlet of the Strawberry Creek culvert. There will be no separate pedestrian area or interpretative signage located on the bridge and no piers within the bay or mudflat. The bridge would not require excavation of any wetland or mudflat area and would not remove habitat or cast shadow on the mudflat habitat below due to the east-west alignment of the bridge. The following text revisions were made to reflect the changes to the bridge design on page 2-10.

> **Bridge Construction.** Construction of the proposed bridge crossings would generally involve using a pile driver to drive concrete piles for bridge footings, pouring concrete caps in place for the bridge footings, using a crane to lift pre-fabricated steel or concrete bridge section into place, and fastening the bridge sections together. The proposed bridge crossing would be ~~approximately 10~~ 12 feet wide ~~with a wooden pedestrian trail ranging from 5 to 10 feet wide~~. The length of the bridge would be approximately ~~150~~110-feet. All of the bridge and Bay Trail Extension would be designed to conform to Americans with Disabilities Act (ADA) requirements. Construction material and equipment for the Strawberry Creek Bridge would be delivered in flatbed trucks. The concrete piles would be approximately 24 inches in diameter and approximately 30 feet to 60 feet in length. ~~Three~~ Two central piles and piles ~~will be used~~ at each bridge end-footing location will be used. Once the piles are in place, a concrete cap would be poured in place on the piles ~~at each bridge footing~~. A concrete truck would mix the concrete, and a pump and pipeline would be used to pour the caps in place at each bridge footing. A crane would then be used to place bridge sections atop the caps. The crane would operate from University Avenue. Bridge construction activities could disturb a corridor up to 20-feet wide. Staging for Phase 1 construction, including the bridge crossing, would take place at a location south and west of the existing I-80 bicycle pedestrian over crossing on existing disturbed lands.



Bicycle-Friendly Berkeley Coalition
P.O. Box 13357
Berkeley, CA 94712-4357
Office phone: 510-549-RIDE (7433)
Bikestation: 510-548-RIDE
www.bfbc.org

October 10, 2003

Deborah Chernin, Project Manager
City of Berkeley
Department of Parks Recreation & Waterfront
2180 Milvia St. 3rd Floor
Berkeley, CA 94610

Re: Bay Trail Extension to the Berkeley Marina

Dear Ms. Chernin:

The Bicycle-Friendly Berkeley Coalition presents the following comments on the Bay Trail Extension to the Berkeley Marina Plan that was put out for public comment on September 19, 2003.

1. BFBC supports the Plan's recommendation that the multiuse path through the Shorebird Park be widened to 12 ft. to correspond with the width of the path along the entire extension of the Bay Trail; 03-1

2. It is important that the multiuse path have several connections to it for access by bicyclists. Please do not assume that cyclists will only enter the extension at the Bike/Ped Bridge touchdown and leave the extension out at Seawall Drive. Particularly, there should be at least one entrance/exit at the midway point of University Drive along the Segment 2 of the plan; 03-2

3. Trees planted along the multiuse path should not result in roots "uprooting" the path; 03-3

4. Although it does not appear that the proposed plan addresses any design changes to University Ave., I do want to take this opportunity to point out that the proposed 03-4

extension along University Ave. should not be in lieu of safe bicycle access on University Ave. Experienced cyclists, for example, should have the option of using University Ave. for Marina access and other cyclists, such as for example parents with children, should have the option of using the trail extension.

Thank you very much for your consideration of these points.

Sincerely,

Dave Campbell
President

O3 *Dave Campbell*
President
Bicycle-Friendly Berkeley Coalition
P.O. Box 13357
Berkeley, California 94712

O3-1 **Response.** The comment is noted.

O3-2 **Response**. Several connections from University Avenue and the parking lots to the Bay Trail are available and will provide access from within the Marina onto the Bay Trail.

O3-3 **Response.** Trees planted along the multiuse path should not result in "uprooting" of the path. Mitigation Measure 4.3.1-1 requires a replacement design plan that will be submitted to the City for approval that includes location and size of replacement trees. The following modification was made to this mitigation measure to assure that replacement trees are not placed too close to the path resulting in uprooting of the path.

> **Mitigation Measure 4.3.1-1.** A tree removal and replacement design plan shall be submitted to the City for approval that outlines the exact species and location of trees to be removed as well as the species, location and size of replacement trees. Trees greater than 6 inches dbh shall be replaced at a 4:1 ratio. Tree root growth shall be considered when choosing replacement tree location to minimize chances of uprooting the trail or other structures. Irrigation and replacement tree maintenance shall also be included in the plan. The plan shall be implemented prior to the completion of the project.

O3-4 **Response.** The comment is noted. This proposed project would not remove any bicycle lanes on University Avenue.

October 13, 2003

Deborah Chernin
City of Berkeley
Department of Parks Recreation and Waterfront
2180 Milvia St. 3rd floor
Berkeley, CA 94704

Re: Bay Trail Extension to the Berkeley Marina--Draft Negative Declaration and Initial Study

Comments on **Trail Alignment, Specific Trail Design and Aesthetics/land use**

The 8ft.-wide pathway beginning at University Ave. and boardering the East Lawn has been designed to be doubled in width to 16ft. (12ft. asphalt pavement, 4ft. shoulder). In Section 3-2 the East Lawn appears to have been substantiallly reduced (a setback of 20ft.? to accomodate the "interpretive/overlook/bench/seawall) There is no way of determining the loss of lawn area, because an overhead view of the East Lawn is not included in Section 6. P1-1

This design is a detriment to public safety and aesthetics/land use. Pedestrians and people using wheelchairs can now leisurely traverse the path viewing the shorebirds at low tide, the hills and the Bay without the need to dodge speeding cyclists. The mature trees, growing on the berm west of the lawn, provide shelter from westerly winds -- the lawn is a popular spot for picnics. P1-2

The widening of the pathway creates a hazardous roadway with fast-moving cyclists riding sometimes 2 and 3-abreast through this **special, serene** place. Cyclists have access to the Sailing Clubs, Shorebird Park and Seawall Drive via a Bicycle Lane on University Ave. **Walking** a bike on this path is an alternative route. P1-3

Two of the goals listed on the **Bay Trail** website are **"to provide a setting for wildlife observation"**and **'to create a comfortably scaled place that brings people together".** This existing pathway already meets these goals. Please do not destroy it. P1-4

Sheila Andres

Sheila Andres
1324 Arch St.
Berkeley, CA 94708

cc: Janet McBride, Bay Trail Project Manager, ABAG

P1 *Sheila Andres*
1324 Arch Street
Berkeley, CA 94708

P1-1 **Response.** The portion of the East Lawn that is turf and that faces the Bay is approximately 31,000 square feet in area. The existing 6-foot asphalt trail that serves as one edge of that turf area will be widened to a 12-foot width to accommodate the benches and interpretive stations shown on drawing sheet 3-2. Turf would continue to extend to the pavement edge. The trail will replace approximately 2,650 square feet, or approximately 8%, of the existing lawn.

P1-2 **Response.** The design would not pose a significant threat to public safety or visitors in wheelchairs. Widening and creating a continuous, maintained path would increase access and safety for pedestrians and wheelchair users. The design plan includes safety signs and pavement markings indicating a multi-use path and intersections. Other commenters noted that high speed bicyclists would not chose a multi-use path for high-speed activities. Refer to comment letters P2 and P3. The trees on the west side of the East Lawn berm would not be affected by the trail.

P1-3 **Response.** Refer to response P1-2. University Avenue would remain an option for high-speed cyclists to access the Marina.

P1-4 **Response.** The comment is noted.

Chernin, Deborah

From: Phil Morton [pmorton@employees.org]
Sent: Sunday, September 28, 2003 3:39 PM
To: Chernin, Deborah
Cc: bfbc-core@bfbc2.org
Subject: Re: Waterfront Commission taking testimony on bay trail

Dear Ms. Chernin,

I have some comments to make on the spur from the Bay Trail to the Marina:

==========

I am a long time resident of Berkeley, and am strongly committed to improving bicycle access to all parts of our community. I was delighted with the bicycle/pedestrian overcrossing over the freeway. The direct access to the Bay Trail enhances the value of the bridge.

I am pleased that the city staff is looking at a good way to get from the Bay Trail to the many amenities that the waterfront has to offer in the Marina area.

This summer my daughter took a class at Cal Adventures and another one at the Shorebird Nature Center. Having to cross University Avenue twice to reach those facilities was not a good thing for her. I strongly support a multiuse (pedestrians, bicyclists, and wheelchair users) trail on the South side of University Avenue. The spur should connect directly to the Bay Trail and provide access to Cal Adventures, the Adventure Playground, and Shorebird Nature Center. The current trail is too narrow and is a hazard, especially to wheelchair users. The trail should be the standard 12' width.

I have heard that some people are concerned about cyclists "dressing in Lycra and Spandex traveling the proposed multiuse trail at excessive speeds. As a recreational cyclist who does indeed own and wear such clothing let me assure you that I would not choose a multiuse trail for high speed activities, and nor would anyone else I know.

P2-1

==========

Can you forward these comments to the Waterfront Commission in lieu of my attending the meeting on October 8 in person.

P2 *Phil Morton*
Berkeley Resident
pmorton@employees.org

P2-1 **Response.** The comment is noted.

Chernin, Deborah

From: David Coolidge [dacoolidge@hotmail.com]
Sent: Sunday, September 28, 2003 6:23 PM
To: pmorton@employees.org; Chernin, Deborah
Cc: bfbc-core@bfbc2.org
Subject: Re: [bfbc-core] Re: Waterfront Commission taking testimony on bay trail

Dear Ms. Chernin:

Please let me state my concurrence with Phil's comments. I also support the construction of a 12' wide multi-use trail south of University. Unlike Phil, my wardrobe no longer includes Lycra nor Spandex, however I think his point about not selecting a multi-use trail for high speed rides is well taken - that is not the sort of environment that experienced cyclists choose for high-speed riding, just because the nature of the mixed traffic make high speed riding nerve-wracking and dangerous for the cyclist. Also, please note that there are other multi-use trails nearby where this hasn't been a problem. Both the multi-use trail around the kite-field (the old Berkeley Dump landfill north of Gilman) and the Bay Trail itself are 12' wide multi-use trails that carry bicycle traffic combined with other types of non-motorized traffic and pedestrians without a lot of conflicts. The Bay Trail posts a 15 mph speed limit for bikes, which in my experience is generally observed by most riders.

P3-1

David Coolidge
dacoolidge@hotmail.com

>From: Phil Morton <pmorton@employees.org>
>To: dchernin@ci.berkeley.ca.us
>CC: bfbc-core@bfbc2.org
>Subject: [bfbc-core] Re: Waterfront Commission taking testimony on bay
>trail
>Date: Sun, 28 Sep 2003 15:39:17 -0700
>
>Dear Ms. Chernin,
>

>I have some comments to make on the spur from the Bay Trail to the
>Marina:
>
>==========
>
>I am a long time resident of Berkeley, and am strongly committed
>to improving bicycle access to all parts of our community. I
>was delighted with the bicycle/pedestrian overcrossing over the
>freeway. The direct access to the Bay Trail enhances the value
>of the bridge.
>
>I am pleased that the city staff is looking at a good way to get from
the
>Bay Trail to the many amenities that the waterfront has to offer in the
>Marina area.
>
>This summer my daughter took a class at Cal Adventures and another one
>at the Shorebird Nature Center. Having to cross University Avenue
twice to
>reach those facilities was not a good thing for her. I strongly
support a
>multiuse (pedestrians, bicyclists, and wheelchair users) trail on the
South
>side of University Avenue. The spur should connect directly to the Bay
>Trail and provide access to Cal Adventures, the Adventure Playground,
>and Shorebird Nature Center. The current trail is too narrow and is a
>hazard,
>especially to wheelchair users. The trail should be the standard 12'
>width.
>
>I have heard that some people are concerned about cyclists "dressing
>in Lycra and Spandex traveling the proposed multiuse trail at excessive
>speeds. As a recreational cyclist who does indeed own and wear such
>clothing let me assure you that I would not choose a multiuse trail for

>high
>speed activities, and nor would anyone else I know.
>
>==========
>
>Can you forward these comments to the Waterfront Commission in lieu of
>my attending the meeting on October 8 in person.
>
>Thank you,
>Phil Morton
>1334 1/2 Parker St.
>Berkeley, CA 94702
>

Get McAfee virus scanning and cleaning of incoming attachments. Get
Hotmail
Extra Storage! http://join.msn.com/?PAGE=features/es

P3 *David Coolidge*
Berkeley Resident
dacoolidge@hotmail.com

P3-1 **Response.** The comment is noted that the Bay Trail posts a 15 mph speed limit for cyclists. The following revision was made to text on Section 4.3.15 letter d on page 4-66 to reflect this fact.

> **d) Less than significant impact with mitigation incorporated.** The proposed project could increase hazards due to design features. Certain areas of the Bay Trail Extension will involve multiple use intersections, such as at the entrance around Hs. Lordships. There is a risk of ~~high-speed~~ bicyclists or rollerbladers endangering pedestrians crossing the trail to enter Hs. Lordships or Skates restaurants. Impacts would be reduced to less than significant levels by the inclusion of safety signs and pavement markings indicating a multi-use intersection. The Bay Trail posts a speed limit of 15 mph for cyclists, which would preclude high-speed activity on the multi-use trail and reduce hazardous impacts to pedestrians. Currently, there are no speed limits posted in the parking lots. The renovated parking lot design could increase hazards to pedestrians walking through the lots and to cars moving in and out of spaces. Mitigation Measure 4.3.15-1 would reduce impacts to a less than significant level. (City of Berkeley 2001; 2M Associates 2002)
>
> > **Mitigation Measure 4.3.15-1.** The maximum speed limit allowed in parking lots shall be 15 miles per hour. Signs shall be posted at the entrance of lots and within lots indicating speed limits and warning of a congested area.
>
> NOTE: Police casually patrol the Marina and will continue to enforce speed limit regulations.

Chernin, Deborah

From: Bryce Nesbitt [bryce2@obviously.com]
Sent: Monday, September 29, 2003 11:11 AM
To: Chernin, Deborah
Subject: Comments on Berkeley Marina Draft Initial Study

Deborah Chernin
Senior Planner
Department of Parks Recreation & Waterfront
2180 Milvia Street Berkeley CA 94704

29 September 2003

Dear Deborah;

I am writing in comment to the "Bay Trail Extension to the Berkeley Marina Draft Initial Study/Mitigated Negative Declaration". I grew up in Berkeley, and have walked, bicycled and driven to the waterfront many

times. In general my reaction is favorable. I have three comments:

1) I suggest that an additional stated "goal" is appropriate:

Goal #5a Circulation: The trail should provide opportunities for non-automotive circulation
within the marina area. In particular the trail should be integrated early into the planning of
transportation needs of any new development (both for commuting and mid-day needs),
to reduce the dependance on the automobile.

P4-1

2) More effort is appropriate to socialize users to share the single tread pathway. Signage and pavement markings should encourage all users

to (for example) stay to the right except to pass. The desire of pedestrians to walk 2 and 3 abreast must be respected.

P4-2

3) The north-south crossing at University Avenue, in front of Seabreeze market, is a mess. This should be at least acknowledged in this study.

P4-3

Bryce Nesbitt
1712 Marin Ave
Berkeley, CA 94707
510-525-7061
bryce2@obviously.com

P4 *Bryce Nesbitt*
Berkeley Resident
bryce@obviously.com

P4-1 **Response.** Goal #5 incorporates the comment. The goal was revised as follows

> **Goal #5 Access.** The Bay Trail Extension should be implemented in a phased manner such that Berkeley residents are encouraged to use it as an alternative to automobile travel as a means of accessing the Marina shoreline. The trail should provide opportunities for non-automotive circulation within the Marina area. In particular, the trail should be integrated early into the planning of transportation needs of any new development to reduce the dependence on automobiles.

P4-2 **Response.** The comment is noted. Signage and pavement markings will indicate a multi-use path. The width of the path can accommodate pedestrians walking 2 to 3 a breast while still allowing cyclists to pass.

P4-3 **Response**. The comment is noted. On page 4-26, under section "Local Transportation," Frontage Road is described as a "two lane, north-south interstate road immediately west of I-80/I-580." Frontage road is also described as "a two-lane roadway with a limited shoulder and no curb and gutter." This description of the north-south crossing encompasses the commenter's concerns that this area is a "mess." The Bay Trail Extension would continue from the I-80/I-580 overpass, behind Sea Breeze Market, over Strawberry Cove and would not pass over the intersection of Frontage Road and University Avenue.

Chernin, Deborah

From: Charley Paffenbarger [cpaff@seismo.berkeley.edu]
Sent: Sunday, October 19, 2003 11:25 AM
To: Chernin, Deborah
Cc: afeinstein@goldengateaudubon.org; n.laforce@comcast.net; corinnelouisedesign@yahoo.com; cpaff@seismo.berkeley.edu
Subject: Public Comment - Bay Trail Extension Draft Design Plan September 2003 - attachment added



baytrailext_cmnt_p2.PDF

To: Deborah Chernin, Project Manager,
City of Berkeley Parks Rec. & Waterfront

Dear Deborah, other interested parties,

Upon reading the Bay Trail Extension Draft Design Plan of Sept. 2003 I feel strongly that the proposed bridge at the mouth of Strawberry Creek will have negative impacts on the existing wildlife habitat and can be easily mitigated as described below.

The proposed bridge, measuring 12-16 feet plus wide and 150 feet in length would unnecessarily cover a large area of the currently daylighted creek mouth and tidal mudflats. This spot is very active bird habitat, used especially by foraging egrets, gulls and numerous shorebirds year-round.

P5-1

In lieu of this new bridge, the wide expanse of University Ave. and its broad median strip could be realigned near the intersection with West Frontage Road. I propose combining East and Westbound lanes of University Ave. on the northern half of University. This would enable the reuse of the southern half for the Bay Trail Extension. No new bridge would need to be built; no habitat disturbed by construction or degraded by an overpassing bridge. I believe this is the best solution for the future State Park 'gateway' - to constrict vehicular traffic and to emphasize and provide inviting and safe access to walk, run, bike or drive a wheelchair into the park. It is also a much less costly plan.

P5-2

I have provided a sketch showing this alternative to a new bridge over Strawberry Creek in the attached PDF file (baytrailext_cmnt_p2.PDF).

I also feel the Draft Design Plan needs to be more precise to mitigate negative impacts of new area lighting. The Plan indicates in section 2.2.3 that new area lighting will be used in Segment 1: east of the Strawberry Creek Bridge. This is also described in Appendix 1, on drawing: Section 1-1. This lighting is located 5 ft. towards the shoreline from the new trail. I believe this would have a negative impact on the wildlife habitat at Strawberry Creek. I propose that this lighting be located along the 'Parking Barrier' shown in

P5-3

Seciton 1-1 and be oriented such that it does not illuminate the shore area beyond the trail itself.

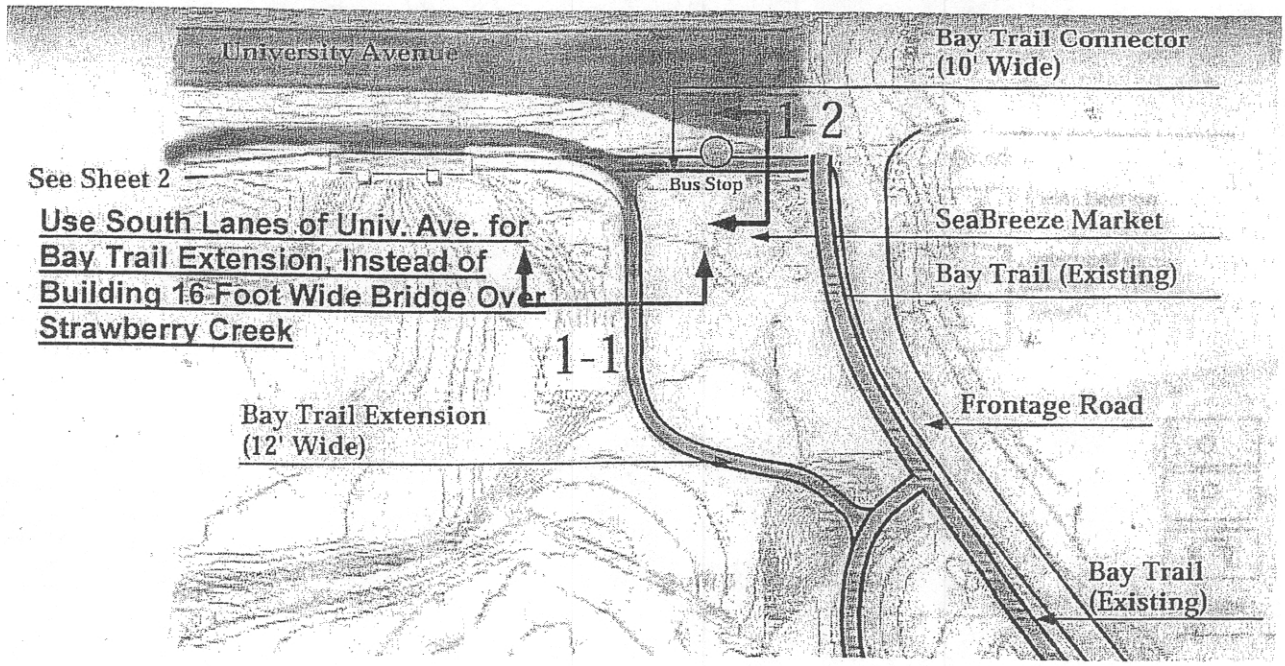
I belive the Plan needs a specification that all new lighting should be designed in a way to cast light within a confined area and should not cast any light, or be visible from outside that area. Light polution should not be allowed in this bay trail extension project, which is defined to be used only during daylight hours.

Thanks for your cooperation in including my proposals in your next itteration of this project planning documents.

Respectfully,

Charley Paffenbarger, Architect, birder, park enthusiast
626 Alameda
Berkeley, CA 94707
Phone: 510 526-3593
Email: cpaff@seismo.berkeley.edu

Use North Lanes of Univ. Ave. for East and Westbound Vehicular Traffic



P5 *Charley Paffenbarger*
Berkeley Resident
cpaff@seismo.berkeley.edu

P5-1 **Response**. Refer to response 02-2.

P5-2 **Response**. The comment is noted. The trail alignment along University Avenue and the Strawberry Creek Bridge is consistent with the adopted Eastshore State Park General Plan. The current design of the bridge would not cause significant impacts to wildlife or their habitat. Refer to response O2-2 for further explanation.

P5-3 **Response.** Refer to response A4-5.

Chernin, Deborah

From: Mike Vandeman [mjvande@pacbell.net]
Sent: Sunday, October 19, 2003 9:50 AM
To: corinnelouise paff; Chernin, Deborah
Cc: peterr@socrates.berkeley.edu; afeinstein@goldengateaudubon.org; n.laforce@comcast.net; kaohlson@pacbell.net; steveandlil@worldnet.att.net; cpaff@seismo.berkeley.edu
Subject: Re: baytrail extension t the berkeley marina

At 09:23 AM 10/19/03 -0700, corinnelouise paff wrote:
>October 19,2003
>
>To: Deborah Chernin, Project Manager
>City of Berkeley, Dept. of Parks Recreation &
>Waterfront
>
>re: Bay Trail Extension to the Berkeley Marina
>
>Dear Ms. Chernin,
>
> While the idea of providing a non-vehicular access
>for pedestrians to the Berkeley Marina is to be
>admired, the existing design proposal has serious
>flaws that will prove to be detrimental to wildlife.
> The trail segment over-looking the Strawberry
>Creek outlet is overdesigned, too large, and out of
>place. The bridge and overlook view deck will be too
>disturbing to the wildlife that uses the tidal
>mudflat below. The size of the bridge will
>"super-culvert" the outlet, add more shadow to the
>area below, and drive sounds that that will echo onto
>the mudflat below, which will disturb the shorebirds,
>and quite likely cause them to cease their usage of
>that area.

P6-1

> The trail running along the edge of the mudflat
>near the seabreeze market and beyond is too close to
>wildlife habitat, destroys the extremely valuable
>willow and coyote bush scrub songbird habitat, and
>leaves no buffer zone between the mudflat and human
>generated traffic. Also, the existing, narrow, upland
>buffer zone is a small, valuable feeding zone for
>wildlife, and raptors regularly perch on the signs
>there.

P6-2

> An effective solution would be to eliminate the
>wide University Ave. median strip, and utilize the
>extra footage to create a simple, modest foot path on
>the edge of University Ave. Also, it would be
>unacceptable to design a component of any trail on the
>northside of University Ave., as that willow/meadow
>habitat is crucial as it stands, and needs its
>existing roadside buffer zone.
> Thank you for your attention.

P6-3

> Sincerely,
>
> Corinne Greenberg, member
> Conservation Committees of
> Golden Gate Audubon Society and
> Sierra Club

Thanks! Do you think it would be a good symbolic gesture for the City to

protest its implementation, and simply not cooperate with the Bay Trail at all?

===

I am working on creating wildlife habitat that is off-limits to humans ("pure habitat"). Want to help? (I spent the previous 8 years fighting auto dependence and road construction.)

http://home.pacbell.net/mjvande

P6 *Corinne Greenberg*
Berkeley Resident

P6-1 **Response**. Refer to response O2-2 regarding impacts of the bridge on wildlife.

P6-2 **Response**. Refer to response O2-2 regarding impacts on mudflat habitat. Although the project will disturb some wildlife habitat west of the Seabreeze Market (due to trail construction and trail users), this is not considered a significant impact, due to the limited area of habitat disturbance and the much larger areas of similar habitat that will remain nearby (e.g., at the Brickyard and Berkeley Meadow). The trail will avoid existing willows.

P6-3 **Response**. The current design of the bridge would not cause significant impacts to wildlife or their habitats. Refer to response O2-2. The proposed project would not include any trail on the north side of University Avenue.

Chernin, Deborah

From: Lillian T. Fujii [steveandlil@worldnet.att.net]
Sent: Monday, October 20, 2003 8:12 PM
To: corinnelouise paff; Chernin, Deborah
Cc: Arthur Feinstein; Caroline H. Kim
Subject: Re: baytrail extension t the berkeley marina

Dear Ms. Chernin, In case there is any question, I agree completely with Corinne. I am an avid birdwatcher; I teach beginning birdwatching for Golden Gate Audubon, and I always take my class to the Berkeley Meadows. It
is the only "close" East Bay location where one is almost certain to see Northern Harrier and White-tailed Kite. It is also a great location to see
certain other species, like Savannah Sparrow, and in the winter, Lincoln's
Sparrow.

When it comes to wildlife protection, especially in urban areas, the least
amount of encroachment and disturbance is best.

P7-1

Thank you for you time and concern.

Lillian Fujii
GGAS Conservation Committee

----- Original Message -----
From: "corinnelouise paff" <corinnelouisedesign@yahoo.com>
To: <dchernin@ci.berkeley.ca.us>
Cc: <peterr@socrates.berkeley.edu>; <afeinstein@goldengateaudubon.org>; <n.laforce@comcast.net>; <kaohlson@pacbell.net>; <mjvande@pacbell.net>; <steveandlil@worldnet.att.net>; <cpaff@seismo.berkeley.edu>
Sent: Sunday, October 19, 2003 9:23 AM
Subject: baytrail extension t the berkeley marina

> October 19,2003
>
> To: Deborah Chernin, Project Manager
> City of Berkeley, Dept. of Parks Recreation &
> Waterfront
>
> re: Bay Trail Extension to the Berkeley Marina
>
> Dear Ms. Chernin,
>
> While the idea of providing a non-vehicular access
> for pedestrians to the Berkeley Marina is to be
> admired, the existing design proposal has serious
> flaws that will prove to be detrimental to wildlife.

> The trail segment over-looking the Strawberry
> Creek outlet is overdesigned, too large, and out of
> place. The bridge and overlook view deck will be too
> disturbing to the wildlife that uses the tidal
> mudflat below. The size of the bridge will
> "super-culvert" the outlet, add more shadow to the
> area below, and drive sounds that that will echo onto
> the mudflat below, which will disturb the shorebirds,
> and quite likely cause them to cease their usage of
> that area.
> The trail running along the edge of the mudflat
> near the seabreeze market and beyond is too close to
> wildlife habitat, destroys the extremely valuable
> willow and coyote bush scrub songbird habitat, and
> leaves no buffer zone between the mudflat and human
> generated traffic. Also, the existing, narrow, upland
> buffer zone is a small, valuable feeding zone for
> wildlife, and raptors regularly perch on the signs
> there.
> An effective solution would be to eliminate the
> wide University Ave. median strip, and utilize the
> extra footage to create a simple, modest foot path on
> the edge of University Ave. Also, it would be
> unacceptable to design a component of any trail on the
> northside of University Ave., as that willow/meadow
> habitat is crucial as it stands, and needs its
> existing roadside buffer zone.
> Thank you for your attention.
> Sincerely,
>
> Corinne Greenberg, member
> Conservation Committees of
> Golden Gate Audubon Society and
> Sierra Club
>
> _____
> Do you Yahoo!?
> The New Yahoo! Shopping - with improved product search
> http://shopping.yahoo.com
>

P7 *Lillian T. Fujii*
Berkeley Resident
steveandlil@worldnet.att.net

P7-1 **Response.** Refer to responses O2-2, P6-2, and P6-3.

Chernin, Deborah

From: Peter Rauch [peterr@socrates.Berkeley.EDU]
Sent: Monday, October 20, 2003 3:32 PM
To: Chernin, Deborah
Cc: Norman La Force
Subject: Bay Trail Extension across Strawberry Creek

Dear Ms. Chernin,

Norman LaForce asked me to forward you these comments (of mine) as an extension of the Sierra Club's comments which he sent you recently.

I have been in Florida for several months and I have perhaps not seen the latest draft plan. I did review a version earlier this year, as well as did a site visit at that time. From other comments I have seen, I believe the comments below are relevant to the current version of the draft plan.

Peter Rauch
Kensington CA

---------- Forwarded message ----------
Date: Sat, 18 Oct 2003 16:44:24 -0700 (PDT)
From: Peter Rauch <peterr@socrates.Berkeley.EDU>
To: Norman La Force <n.laforce@comcast.net>
Cc: Arthur Feinstein <afeinstein@goldengateaudubon.org>, elbmarin@aol.com,
forbaggins@aol.com, Kristin Ohlson <kaohlson@pacbell.net>,
corinnelouise paff <corinnelouisedesign@yahoo.com>,
hmclean@uclink.berkeley.edu, kaohlson@pacbell.net

I do hope that great attention is paid to the matter of how the trail segment over Strawberry Creek outlet is treated.

Sacrificing the central divider strip of University Ave, in order to not sacrifice the tidal mud flat which runs right up to the existing bridge and road edge over Straw. Ck., should be sought. A large "view deck" or "overlook" should not be build at that creek outfall / tidal mud flat either. This is a small but valuable feeding site for shore birds. P8-1

The trail should not be located to run along the edge of that mud flat either, which would destroy the small remaining willow grove and coyote scrub that provides some "privacy" for those same shorebirds, as well as habitat cover for migratory song birds and local resident birds. The trail, instead, should lead straight east along University for a a way, preferable to either just immediately behind the market, or around the outside front of the market --to keep the biking / jogging / walking traffic away from that mud flat site. P8-2

Do not let the designers tell you that the ESP will reconstruct the mud flat further out into the bay. That mud flat is a quasi-continuous band that outfalls at the creek, then runs west along the rocky revetement (parallel to Univ. Ave) (where the exposed mud is a very narrow band and not uncovered on all tides) and then forms a larger mud flat at the western corner (which does uncover at most all tides).

Also, if there is any discussion about siting a component of the trail along the north side of Univ. Ave., please do not let the design sacrifice the (southerly edge of the) willow grove which emerges from the Berkeley Meadow about halfway along University Ave.

Peter

On Sat, 18 Oct 2003, Eastshore State Park wrote:
> 5. Thurs. 23. Oct - Berkeley - Planning Workshop - see below
> 5. BERKELEY BAY TRAIL SPUR EXTENSION
>
> Please come to the Workshop on Thursday, October 23, 2003.
>
> It will be held at the Marina Conference Room by the Marina
> Office (201 University Ave).
>
> Workshop will begin at 7:00 PM.
>
> The City of Berkeley is planning to design and
> construct a spur of the San Francisco Bay Trail to improve
> bicycle and pedestrian access to the Berkeley Marina. Please
> join us at the workshop to discuss the design of the proposed
> trail. Patrick Miller of 2M Associates, the Landscape
> Architect, will be on hand to answer questions and to solicit
> your comments about design issues.
>
> For further information, contact Project Manager
> Deborah Chernin at (510) 981-6715 or at dchernin@ci.berkeley.ca.us.

P8 *Peter Rauch*
Berkeley Resident
peterr@socrates.berkeley.edu

P8-1 **Response**. Refer to response O2-2 regarding impacts on mudflat habitat and associated wildlife.

P8-2 **Response**. Refer to response P6-2 regarding impacts on wildlife habitat west of the Seabreeze Market.

Jim McGrath
2301 Russell Street
Berkeley, CA 94705
October 29, 2003

Deborah Chernin
City of Berkeley
Department of Parks Recreation and Waterfront
2180 Milvia, Third Floor
Berkeley, CA 94610

Subject: Bay Trail Extension in the Berkeley Marina

Dear Deborah:

I realize that these comments missed the deadline for the initial study. That doesn't really matter; the initial study was fine and the project definitely qualifies for a mitigated negative declaration. I would add only one request. The only possible way in which the project could have a significant impact is if construction closes areas of the marina and of existing trails for extended periods. The City generally does not include "liquidated damages" provisions in its contracts, and therefore construction frequently drags on. To prevent extended construction interfering with established recreational activities, please add a mitigation measure that assures existing access facilities stay open during construction. P9-1

I have a few suggestions on the design. These are not new suggestions; I have mentioned these in field meetings with the landscape architect and with Cliff Marchetti. Those suggestions are:

- Make sure that there are clear zones for carrying boards and sails in the South Basin. Bollards and trees can make circulation with boardsailing equipment difficult or impossible. P9-2
- The trees on the walk from the rigging area to the launch at Hs. Lordships (Section 5-1) are too close to the trail to allow carrying equipment without hitting the foliage. Mature trees that are pruned of vegetation in the lower sections might work, but newly planted trees will interfere with access and may be vandalized. P9-3
- Please eliminate the railing on the steps down to the launch at Hs. Lordships. Users will be carrying sailing equipment in both hands, and the railing will become a safety hazard. P9-4

I appreciate the efforts of the City of Berkeley and your designers, and the support of the Coastal Conservancy. This project will be an important addition to the amenities of Berkeley Marina that will make it attractive to more users.

Very truly yours,

Jim McGrath

P9 *Jim McGrath*
Berkeley Resident
2301 Russell Street
Berkeley, CA 94705

P9-1 **Response**. Build out of the proposed project will be phased over a number of years. Initial trail development will start with the eastern-most segment leading from the existing I–80 bicycle/pedestrian overcrossing to the southwest corner of the East Lawn of the Marina. During construction, portions of the existing trail and access to nearby facilities could be inaccessible. To avoid significant effects to facility access the following revisions were made to Section 4.3.14 (b).

b) Less than significant with mitigation incorporated. Implementation of the proposed project would have an overall beneficial effect on recreational uses in the project vicinity and be in support of several recreation-related plans, policies, and actions set forth by the City of Berkeley. Any potentially significant impacts to the environment as a result of project implementation would be mitigated to less than significant levels. The project is consistent with all key plans guiding land use within the project site, including the Eastshore State Park General Plan, City of Berkeley 2002 General Plan, the 2002 Draft Marina Master Plan, the 1986 Berkeley Waterfront Master Plan, and the 2000 Berkeley Bicycle Plan. (City of Berkeley 2001; City of Berkeley 1986; City of Berkeley 2003b; City of Berkeley 2000)

Construction activities could have an adverse physical effect on recreational use of the area; however, this effect would be less than significant since the construction is temporary and phased such that small portions are constructed at one time. During construction of the Strawberry Creek pedestrian bridge pile drivers will be used. Mitigation Measure 4.3.11-2 from Noise calls for posting of signs at a 500-foot radius from the pile driving activities. This would have some effect on recreational use of the area, but the effect would be less than significant since it would be temporary and no standing recreational facilities are within 500 feet of Strawberry Cove.

Build out of the proposed project will be phased over a number of years, depending on funding. Initial trail development will start with the eastern-most segment leading from the existing I–80 bicycle/pedestrian overcrossing to the southwest corner of the East Lawn of the Marina. During construction, portions of the existing trail and access to nearby facilities could be inaccessible, which could be considered a significant impact on recreation. Implementation of the following mitigation measure would assure a less than significant effect to facility access.

Mitigation Measure 4.3.14-1. During the construction of each segment of the project, surrounding facilities shall remain open to the extent feasible. Temporary, alternate entrances and access paths shall be provided in order to prevent inaccessibility to any of the recreational opportunities at the Marina where possible.

P9-2 **Response**. The note below was added in Section 5-2 and the Windsurf/Kayak Access Sketch Plan.

Note: Trees and related trail facilities (benches/bollards/lights) will be spaced in southern area to accommodate layout/rigging for windsurfing and kayaks and to facilitate access to the San Francisco Bay.

P9-3 **Response.** Section 5-1 is a design sketch of the eastern portion of the Hs. Lordships parking area and is not related to proposed windsurfing access facilities. Trees on Section 5-2 are 20 feet from the trail. Refer to response P9-1.

P9-4 **Response**. The comment is noted. Some windsurfers have expressed the opinion that a railing on the upwind side of the steps would provide a safety benefit. This is particularly true in light of the fact that in the inter-tidal zone of the steps algal growth typically forms making the steps slippery.

At a regular meeting of the Berkeley Waterfront Commission on October 8, 2003, a public hearing was conducted to solicit comments on the adequacy of the Draft Initial Study.

PH1 **Comment**. Robert Cheasty/Citizens for Eastshore State Park (CESP) — CESP is generally happy with this project. The City has done a good job in accommodating people's concerns. There may be some issues about particular trail placement and those will be sent in a letter.

Response. The comment is noted.

PH2 **Comment**. Ed Bennett – I reviewed the alignment and find it to be generally okay. I am concerned that near the Yacht Club beautiful trees will be removed and the existing berm will be taken out to allow more vehicular parking near the Yacht Club. I feel that cars are given priority over trees – but maybe the trees are dying and would not be there in a couple or years or so. I would like to suggest that it would be helpful to tag the trees so someone like me can know what you are talking about. Some people I know think the trail near nature center is too wide, but I disagree.

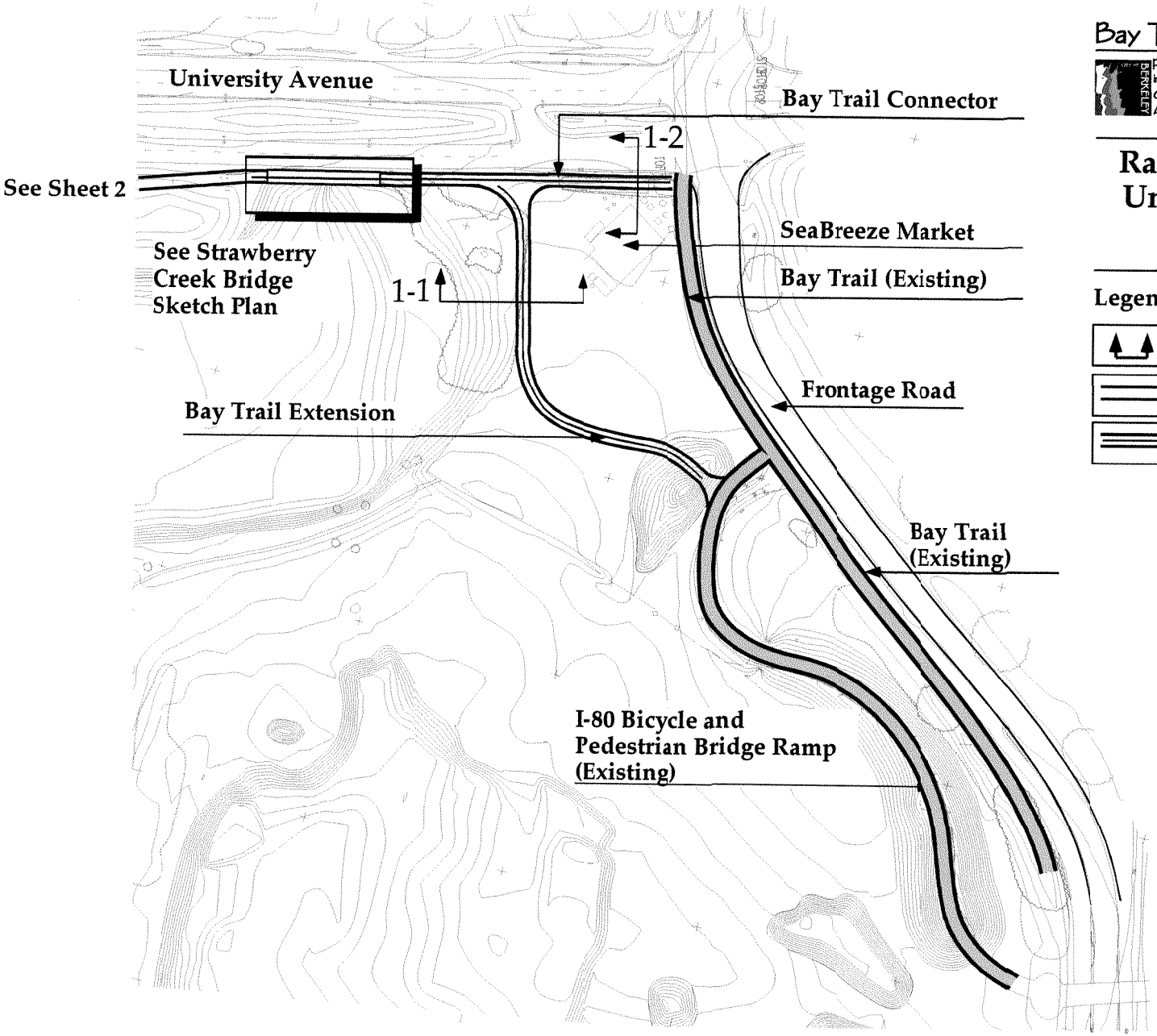
Response. With implementation of the trail, the net area for planting will exceed that which is now available near the Yacht Club. This is due to the removal of a portion of the existing Seawall Drive. A modified berm will be retained and new trees will be planted for both aesthetic purposes and windbreak purposes. The commenter is correct in that some of the existing trees in this area are dying. See response A3-1.

The trail through Shorebird Park near the Nature Center will be widened by approximately 1.5 to 2-feet. This proposal is supported by the administration of the Nature Center.

PH3 **Comment**. Commissioner Norine Smith — Within the East Lawn area adjacent to University Avenue the existing condition is a narrow trail where one can look out on water and birds in a peaceful and tranquil setting. As soon as the trail is widened, that quality will be lost. When bicycles get in there it ruins the experience. A trail that wide is not needed.

Response. The comment is noted. See Comment P2-1, Comment P3-1, and Response P1-2. The ability to look out at the water and shoreline will not be changed as seen from the East Lawn area.

APPENDIX A
ALIGNMENT PLANS, SECTIONS, AND SKETCHES



Bay Trail Extension to the Berkeley Marina

Parks Recreation & Waterfront
in partnership with:
California Coastal Conservancy
Association of Bay Area Governments - Bay Trail Project

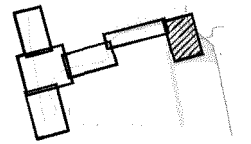
Coastal Conservancy

Ramp of I-80 Overcrossing to University Avenue Shoreline (Eastshore State Park)

Legend (see text for explanation)

- Cross Section
- Trail
- Trail with Centerline Stripe

Drawing Key



Scale
0 50' 100' 200'

North

Note: Base information by HJW Geospatial, Inc., in Oakland, California. In areas of dense vegetation, accuracy of contours may deviate from accepted accuracy standards. The grid is based on a loca, assumed coordinate system. Control survey performed by Moran Engineering, Berkeley, CA.

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Sheet 1 of 6

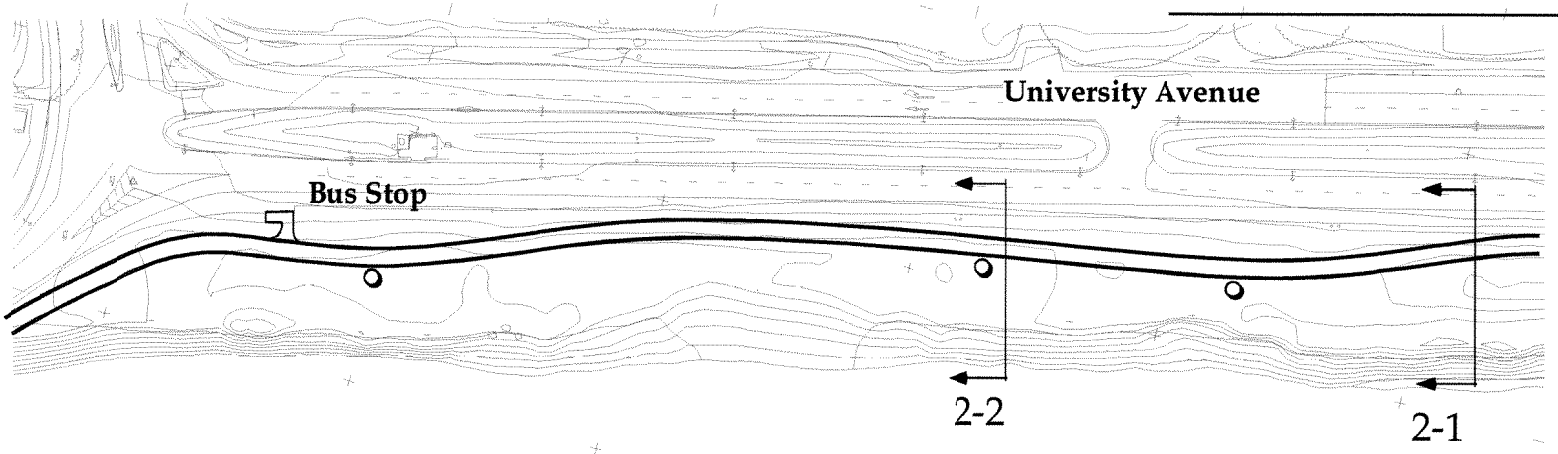
Project Description (11/03)

Bay Trail Extension to the Berkeley Marina

Parks Recreation & Waterfront
In partnership with:
California Coastal Conservancy
Association of Bay Area Governments - Bay Trail Project

Coastal Conservancy

University Avenue Shoreline (Eastshore State Park)

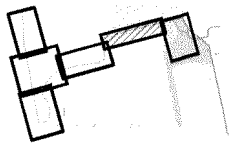


South Sailing Basin

Legend

- Trail
- Trail with Centerline Stripe
- Cross Section
- Bench

Drawing Key



Scale
0 50' 100' 200'

North

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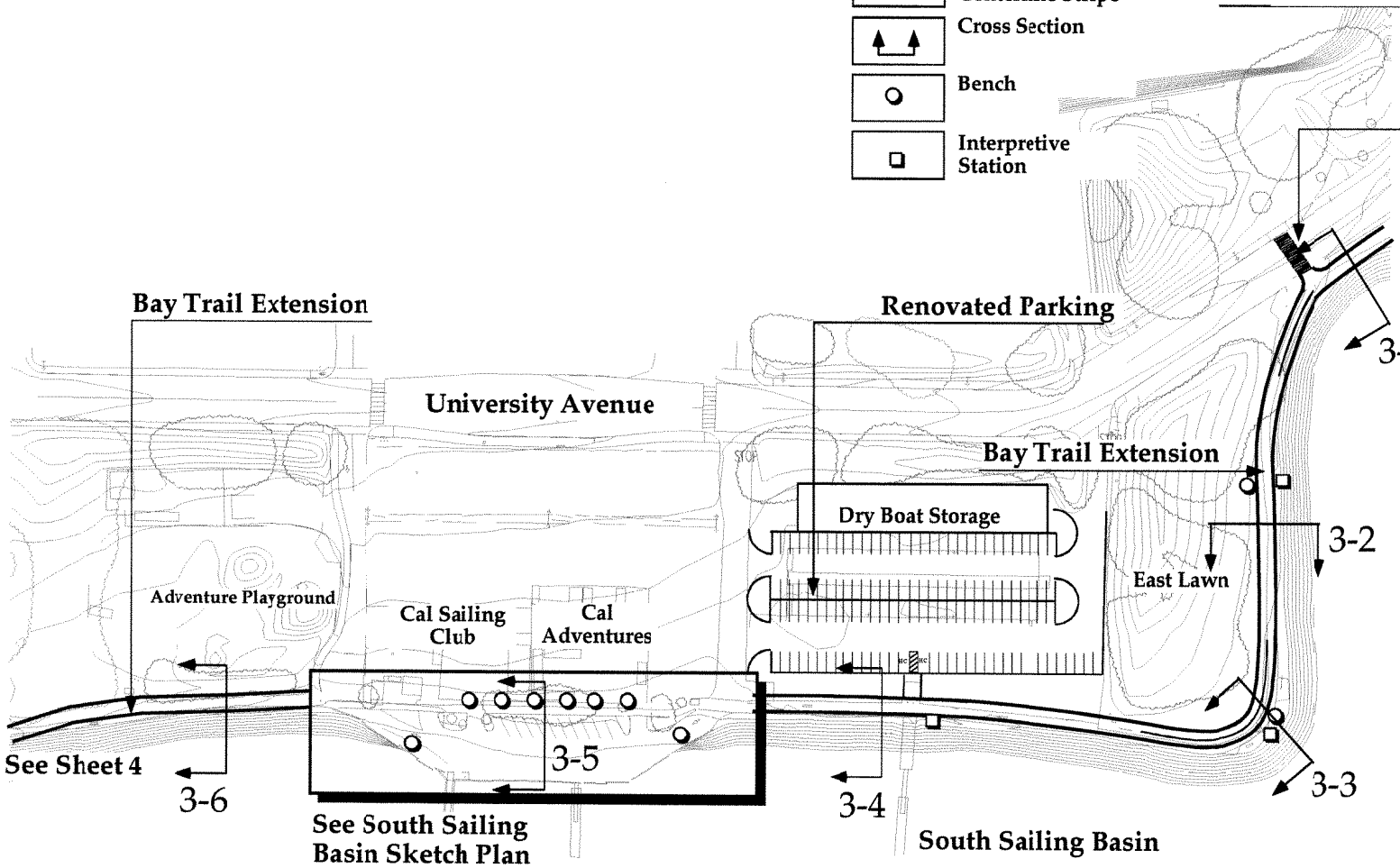
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Bay Trail Extension to the Berkeley Marina

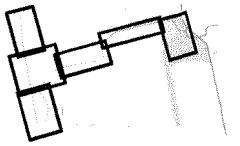
Parks Recreation & Waterfront
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Coastal Conservancy

University Avenue Shoreline (Eastshore State Park) to Shorebird Park



Drawing Key



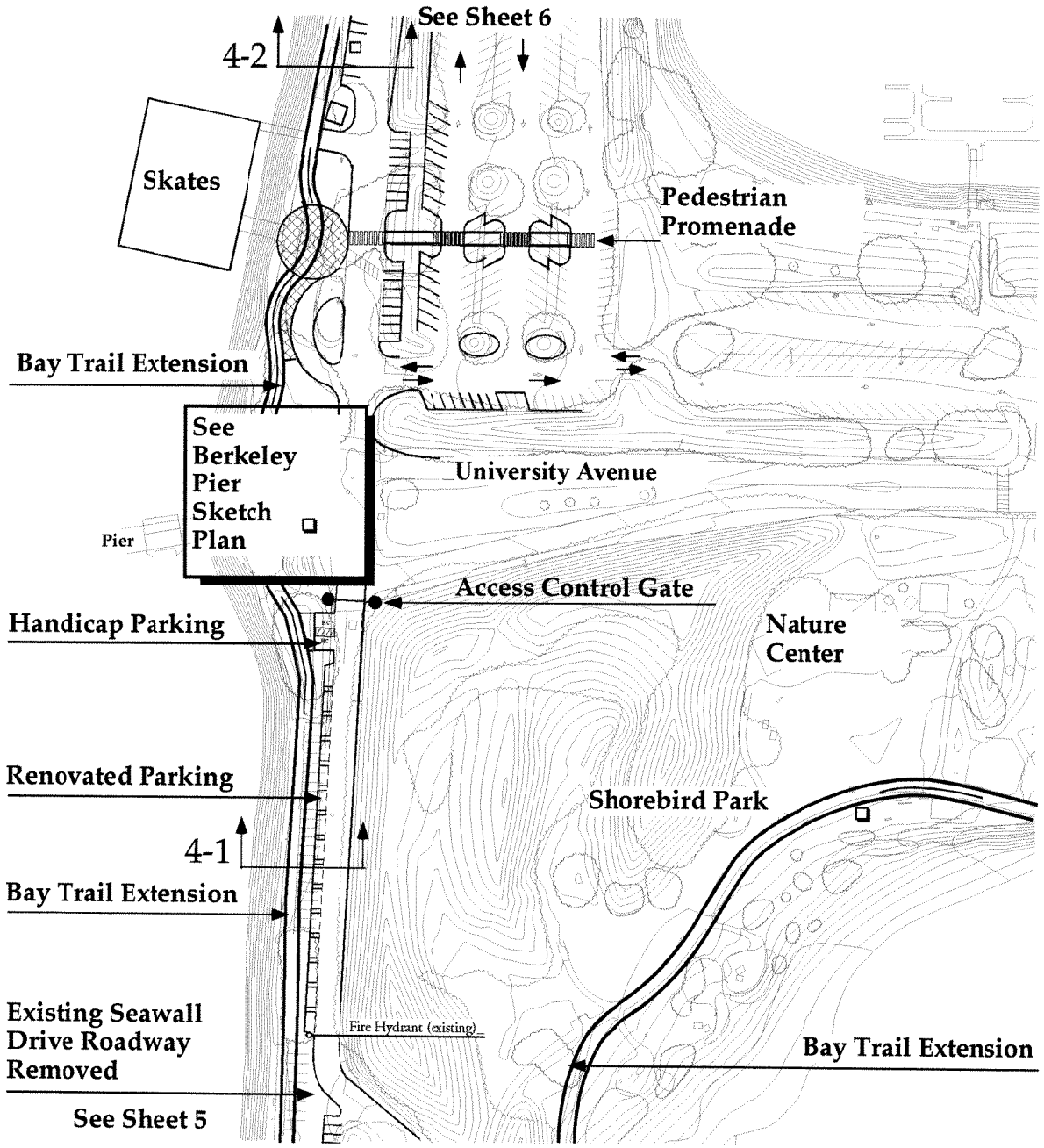
Scale
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North

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Sheet 3 of 6

Project Description (11/03)



Bay Trail Extension to the Berkeley Marina

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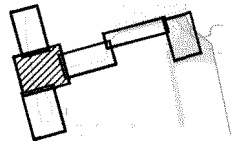
Coastal Conservancy

Shorebird Park, Seawall Drive, and University Avenue

Legend

- Trail
- Trail with Centerline Stripe
- Cross Section
- Bench
- Interpretive Station

Drawing Key



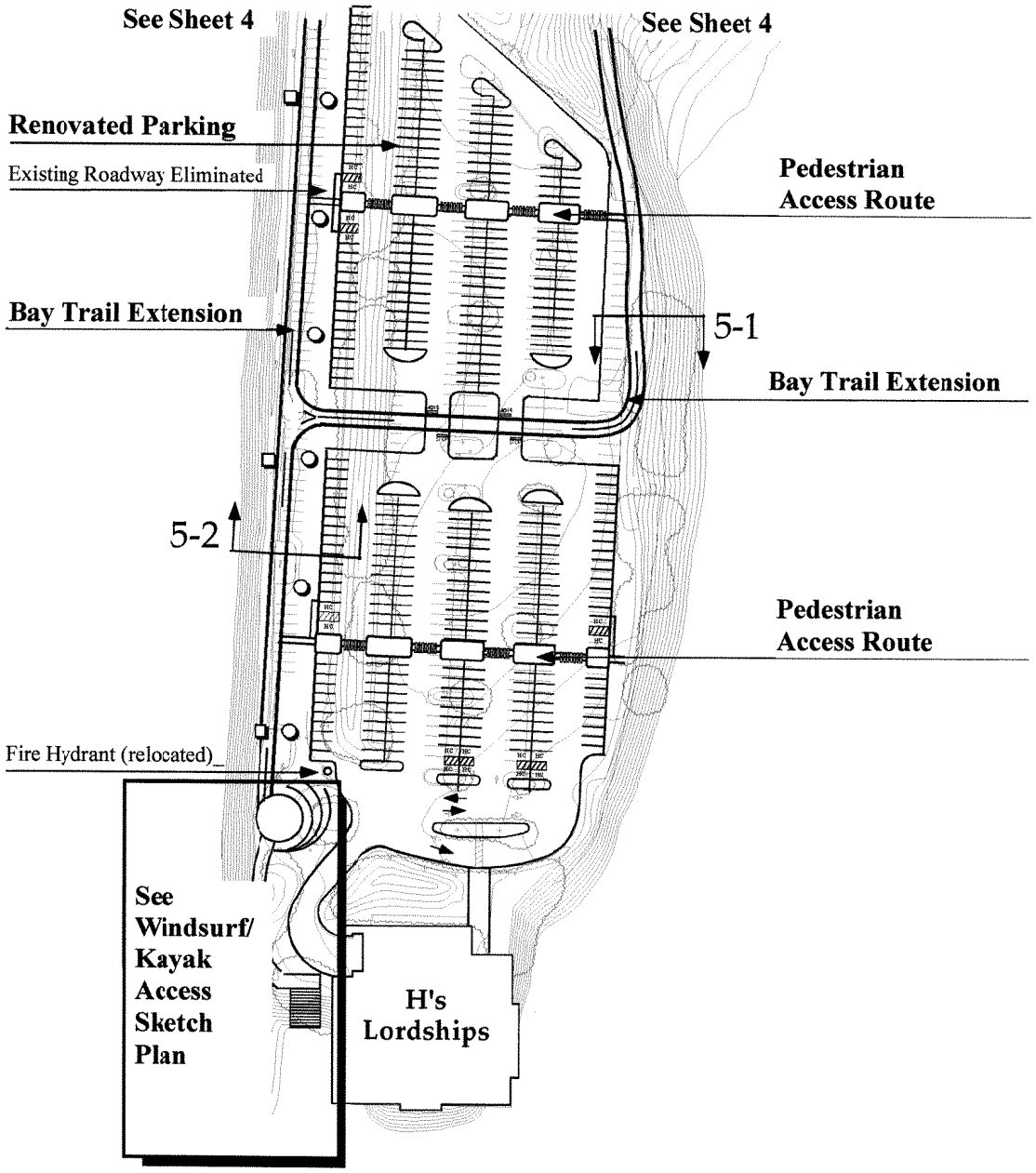
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Sheet 4 of 6

Project Description (11/03)



Bay Trail Extension to the Berkeley Marina

Parks Recreation & Waterfront
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California Coastal Conservancy
Association of Bay Area Governments - Bay Trail Project

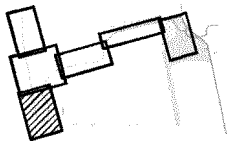
Coastal Conservancy

Shorebird Park to Fishing Pier Plaza

Legend

- Trail
- Trail with Centerline Stripe
- Cross Section
- Bench
- Interpretive Station

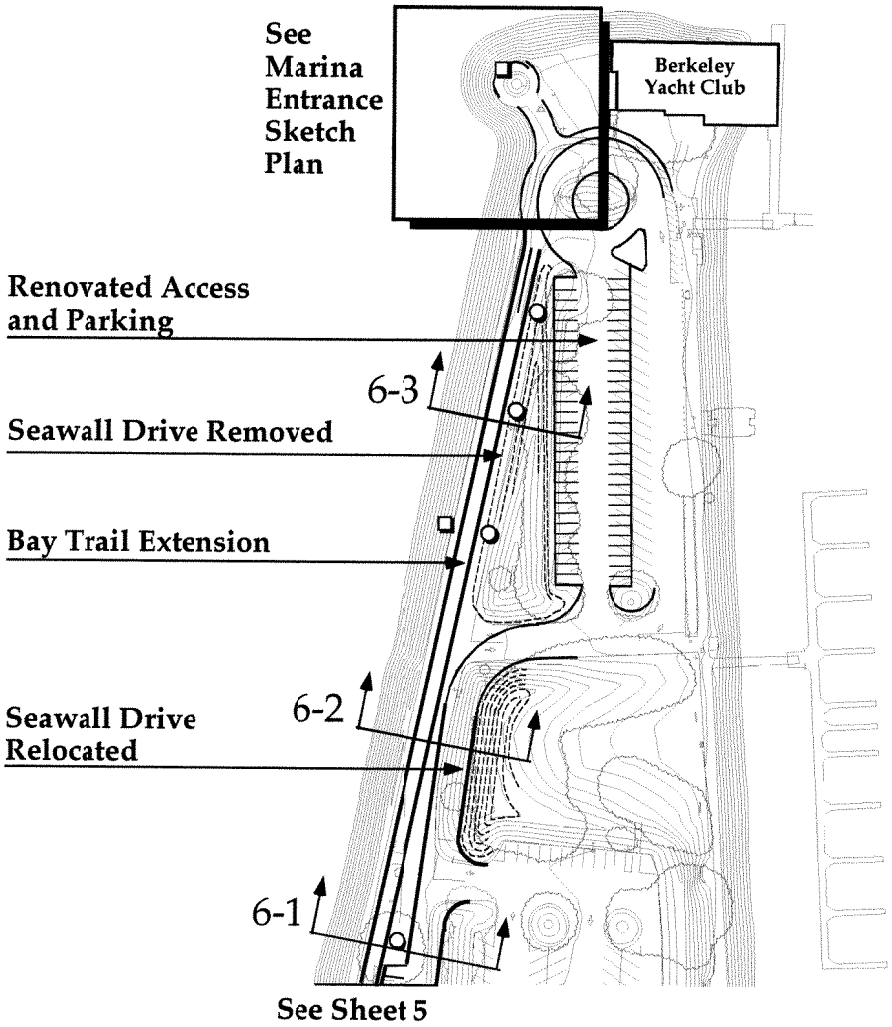
Drawing Key



Scale
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North

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Bay Trail Extension to the Berkeley Marina

Parks Recreation & Waterfront
in partnership with:
California Coastal Conservancy
Association of Bay Area Governments - Bay Trail Project

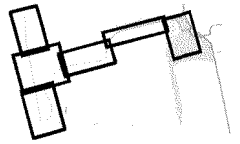
Coastal Conservancy

Seawall Drive (North) to Marina Entrance Vista Point

Legend

- Trail
- Trail with Centerline Stripe
- Cross Section
- Bench
- Interpretive Station

Drawing Key



Scale
0 50' 100' 200'

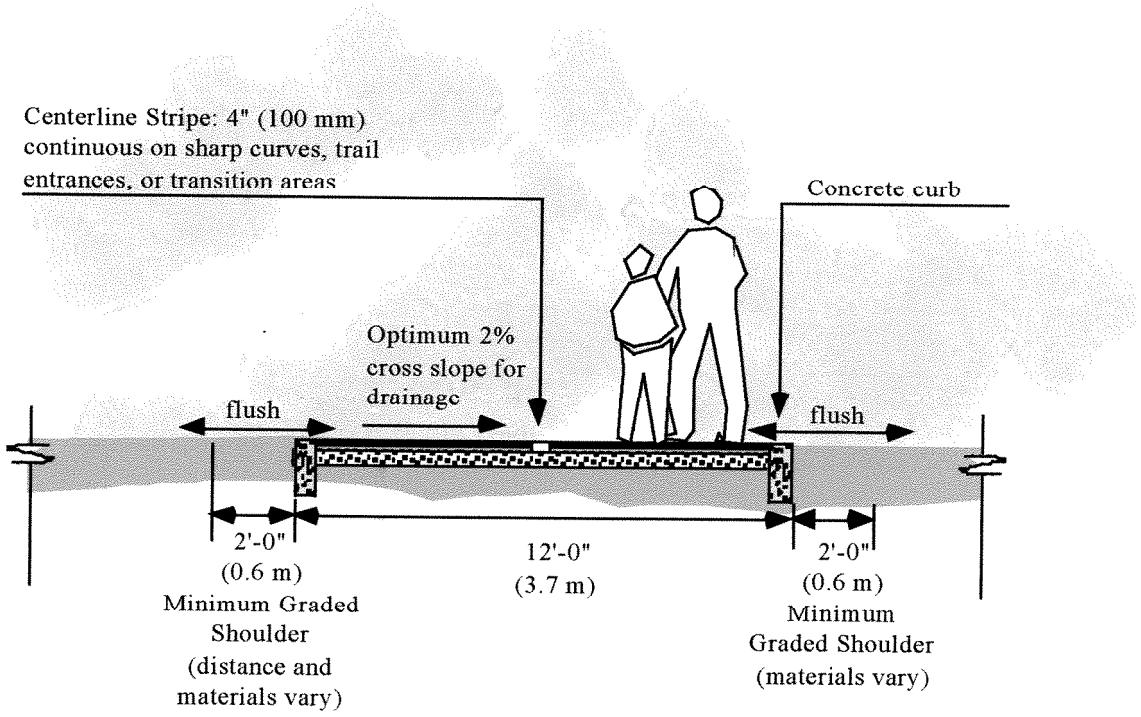
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Sheet 6 of 6

Project Description (11/03)



Notes:

- Section shown illustrates optimum trail widths.
- Trail pavement surface and shoulder widths may vary based on specific site/use conditions and consistent with CalTrans design standards. See Plans and Sections for additional information.
- Trail designed to accommodate use by maintenance vehicles.

Typical Bay Trail Extension Section & Shoulder Options

Bay Trail Extension to the Berkeley Marina

Draft Project Description: 9/1/03

Parks Recreation & Waterfront

in partnership with:

Association of Bay Area Governments - Bay Trail Project

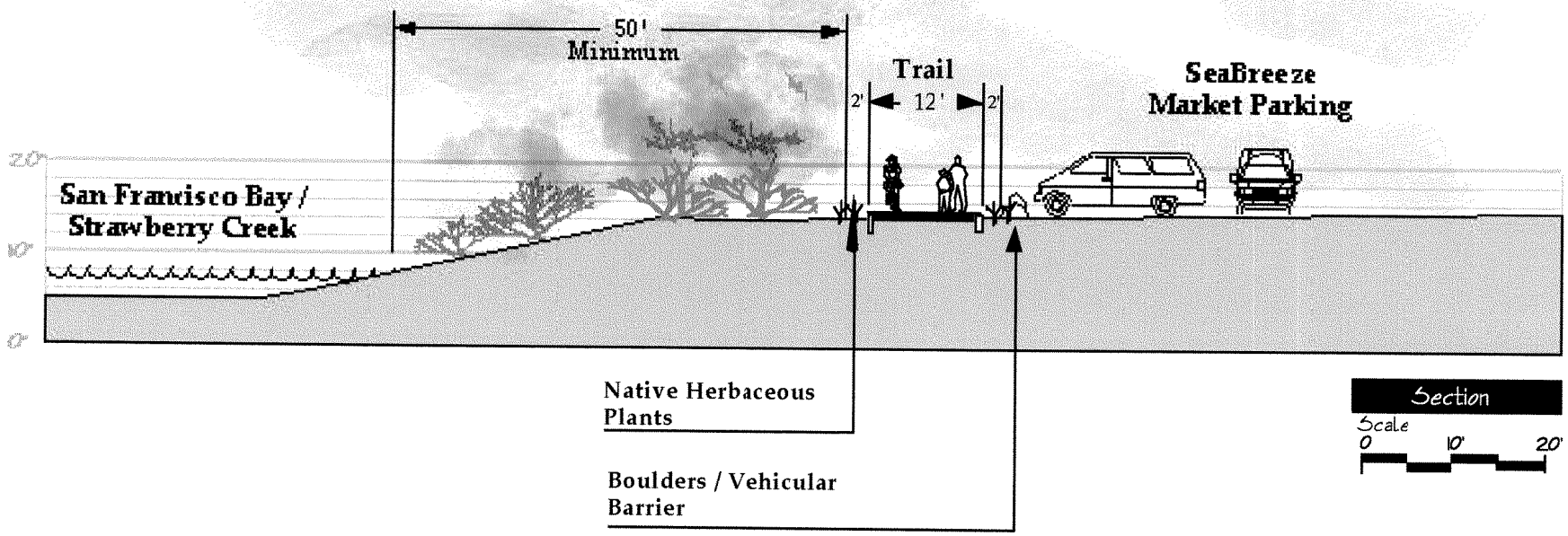
California Coastal Conservancy

Coastal Conservancy

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Section 1-1

Eastshore State Park / SeaBreeze Market Parking Area (looking north)



Bay Trail Extension to the Berkeley Marina

Parks Recreation & Waterfront

in partnership with:

Association of Bay Area Governments - Bay Trail Project

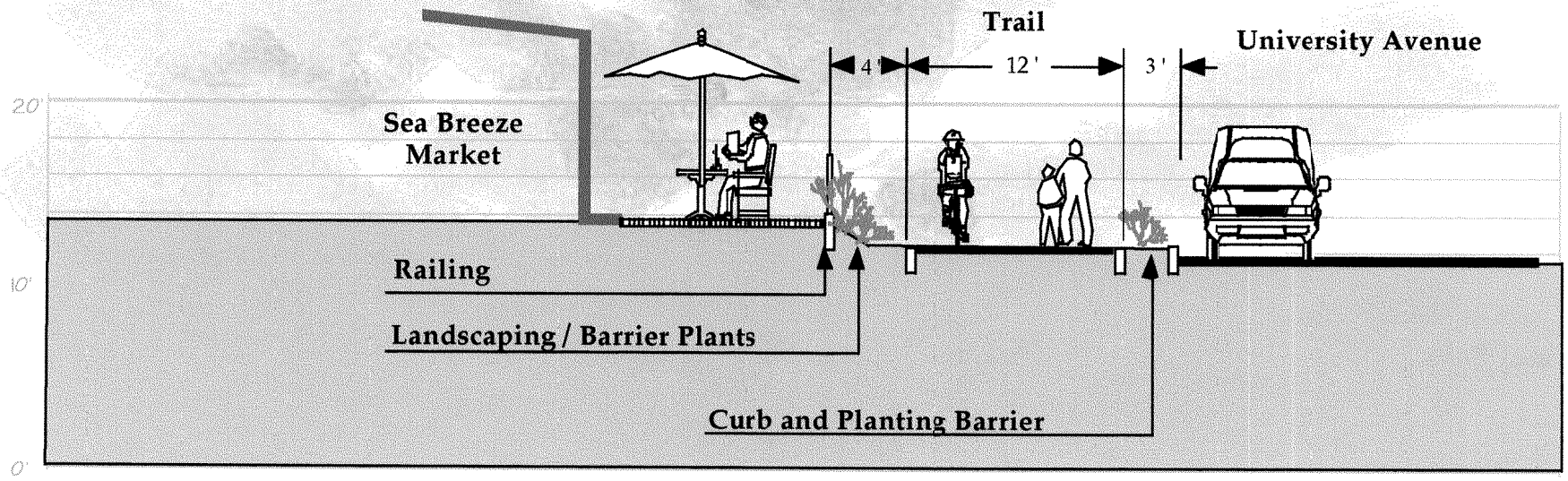
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Coastal Conservancy

Project Description (11/03)

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Section 1-2
University Avenue (looking west)



Section
Scale
0 5' 10'

Bay Trail Extension to the Berkeley Marina

Parks Recreation & Waterfront

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Association of Bay Area Governments - Bay Trail Project
California Coastal Conservancy

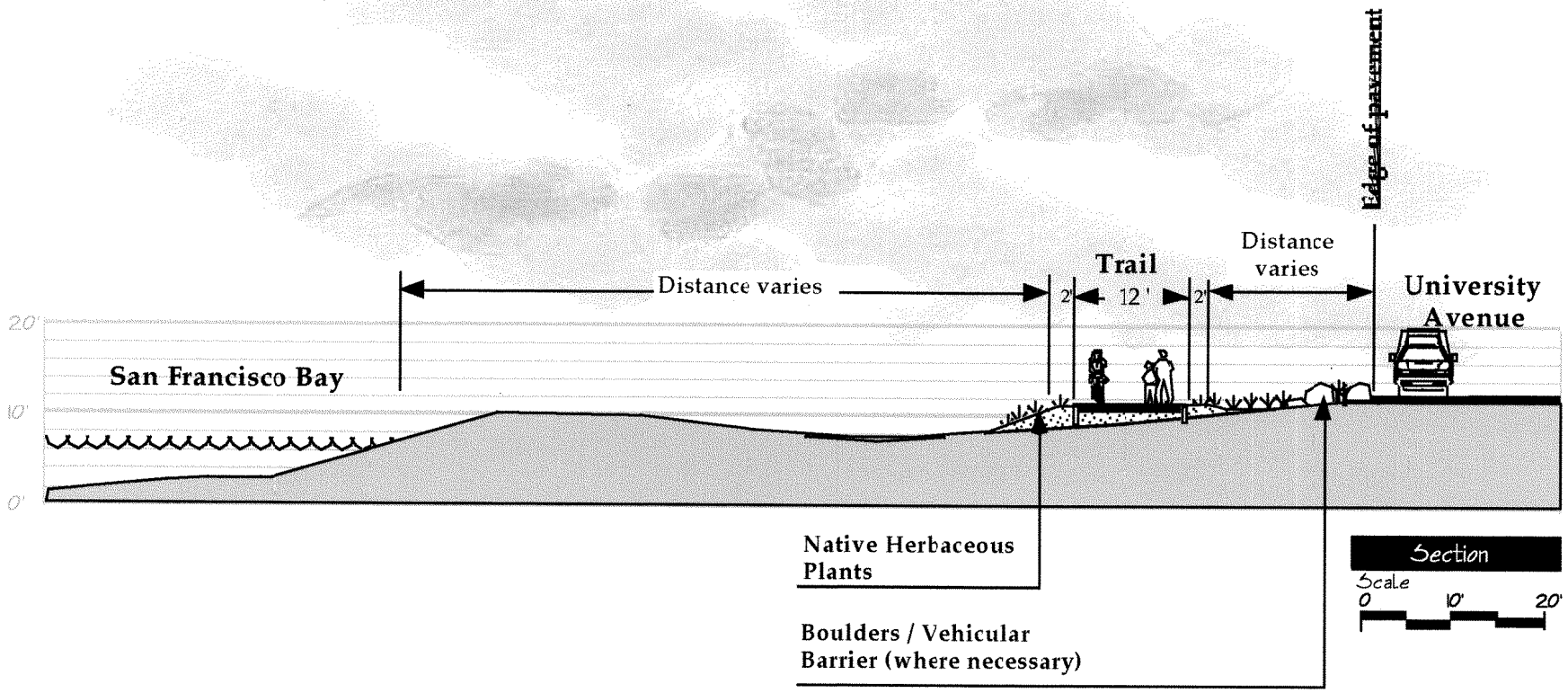
Coastal Conservancy

Project Description: 11/03

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Section 2-1

Eastshore State Park / University Avenue (looking west)



Bay Trail Extension to the Berkeley Marina

Parks Recreaton & Waterfront

in partnership with:
Association of Bay Area Governments - Bay Trail Project
California Coastal Conservancy

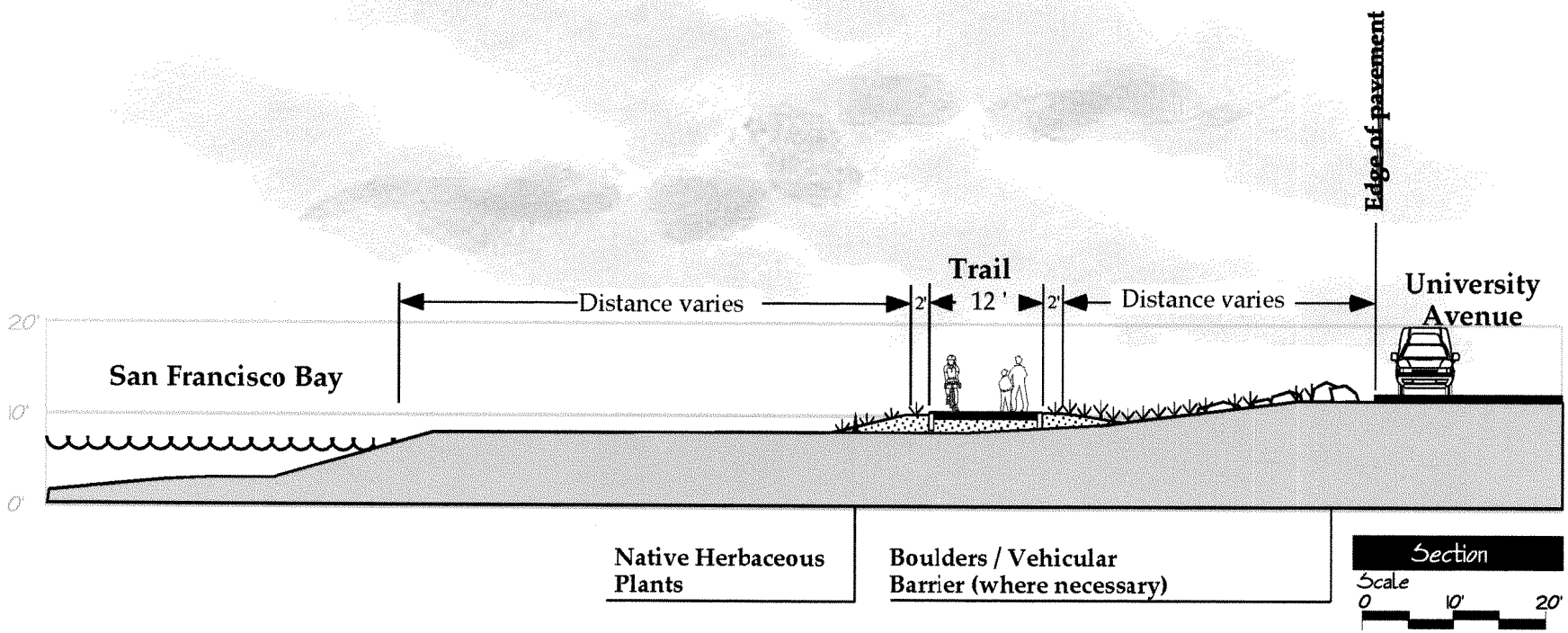
Coastal Conservancy

Project Description (11/03)

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Section 2-2

Eastshore State Park / University Avenue (looking west)



Bay Trail Extension to the Berkeley Marina

Parks Recreation & Waterfront

in partnership with:

Association of Bay Area Governments - Bay Trail Project

California Coastal Conservancy

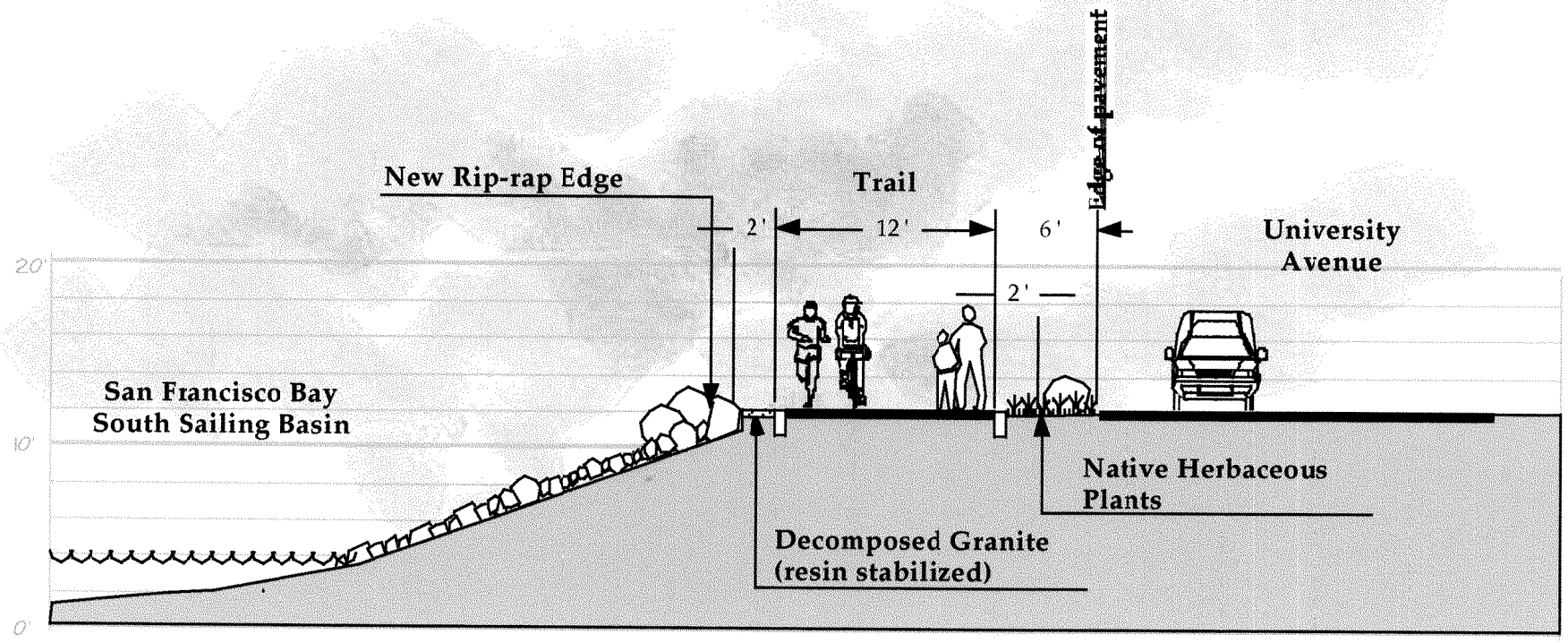
Coastal Conservancy

Project Description (11/03)

This drawing is conceptual and for planning and permit-processing purposes only. Program information, scale, location of areas, and other information shown are subject to field evaluation and modification.

Section 3-1

University Avenue (looking southwest)



Section
Scale
0 5' 10'

Bay Trail Extension to the Berkeley Marina

Parks Recreation & Waterfront

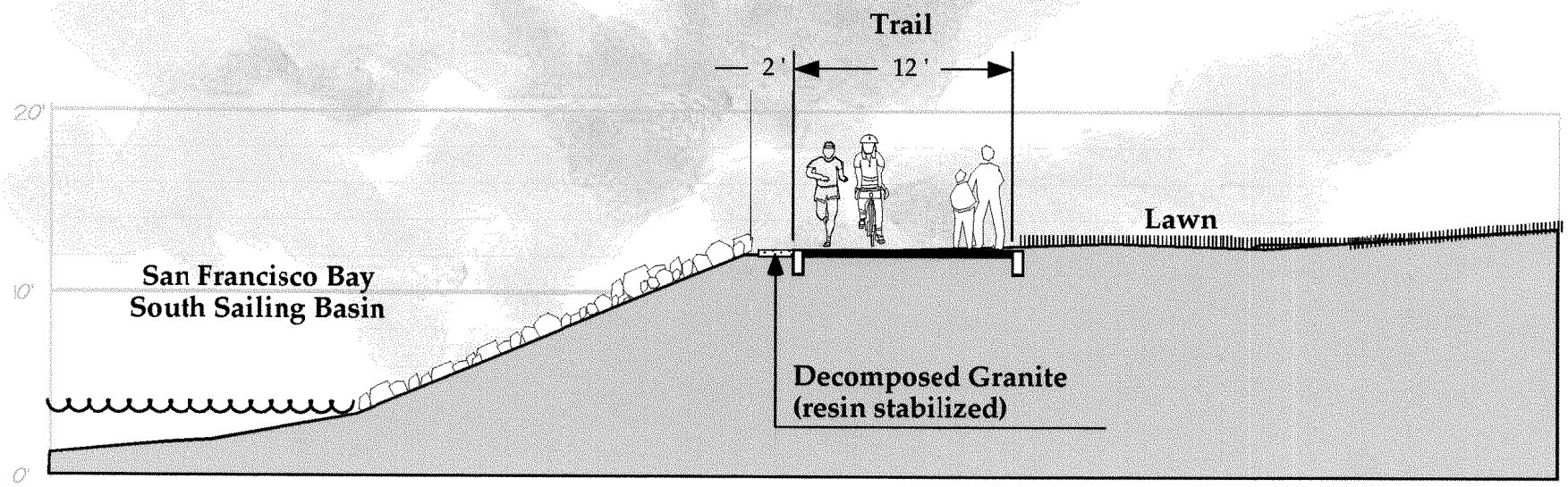
in partnership with:
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California Coastal Conservancy

Coastal Conservancy

Project Description: 11/03

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Section 3-2
East Lawn (looking south)



Section
Scale
0 5' 10'

Bay Trail Extension to the Berkeley Marina

Parks Recreation & Waterfront

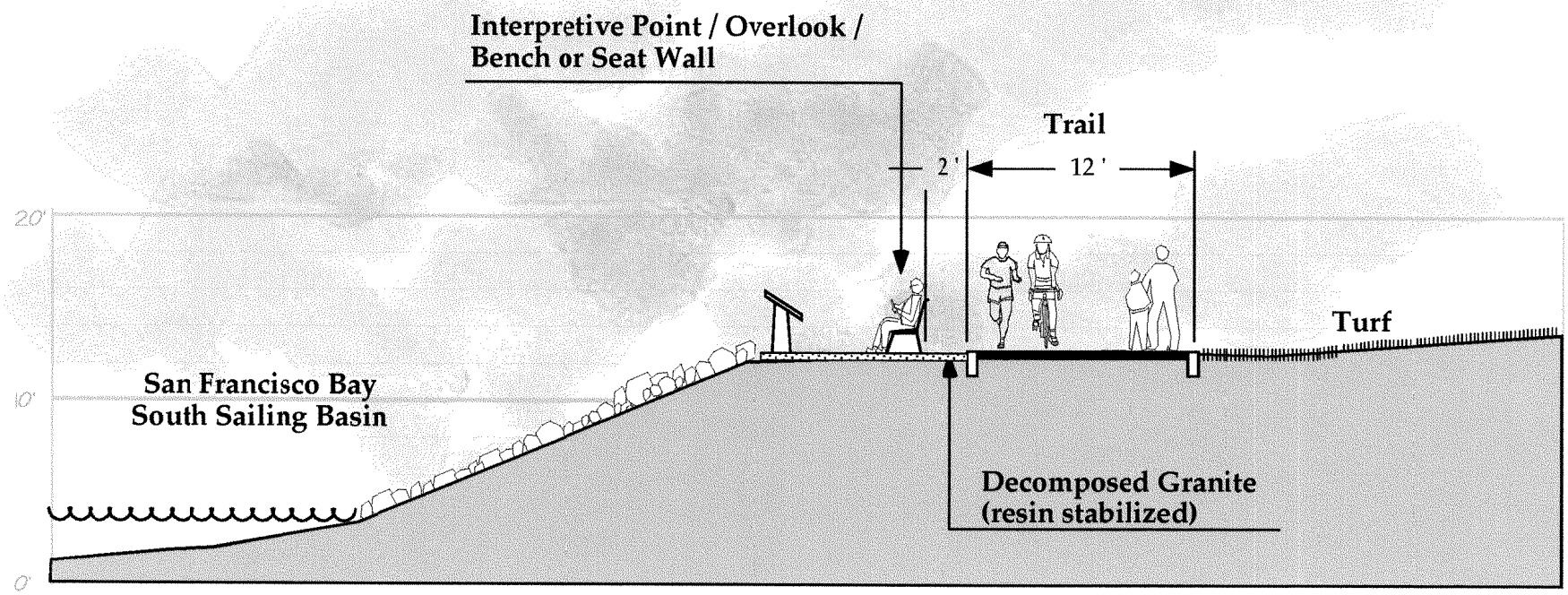
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California Coastal Conservancy

Coastal Conservancy

Project Description: 11/03

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Section 3-3
Corner of East Lawn (looking southwest)



Section
Scale
0 5' 10'

Bay Trail Extension to the Berkeley Marina

Parks Recreation & Waterfront

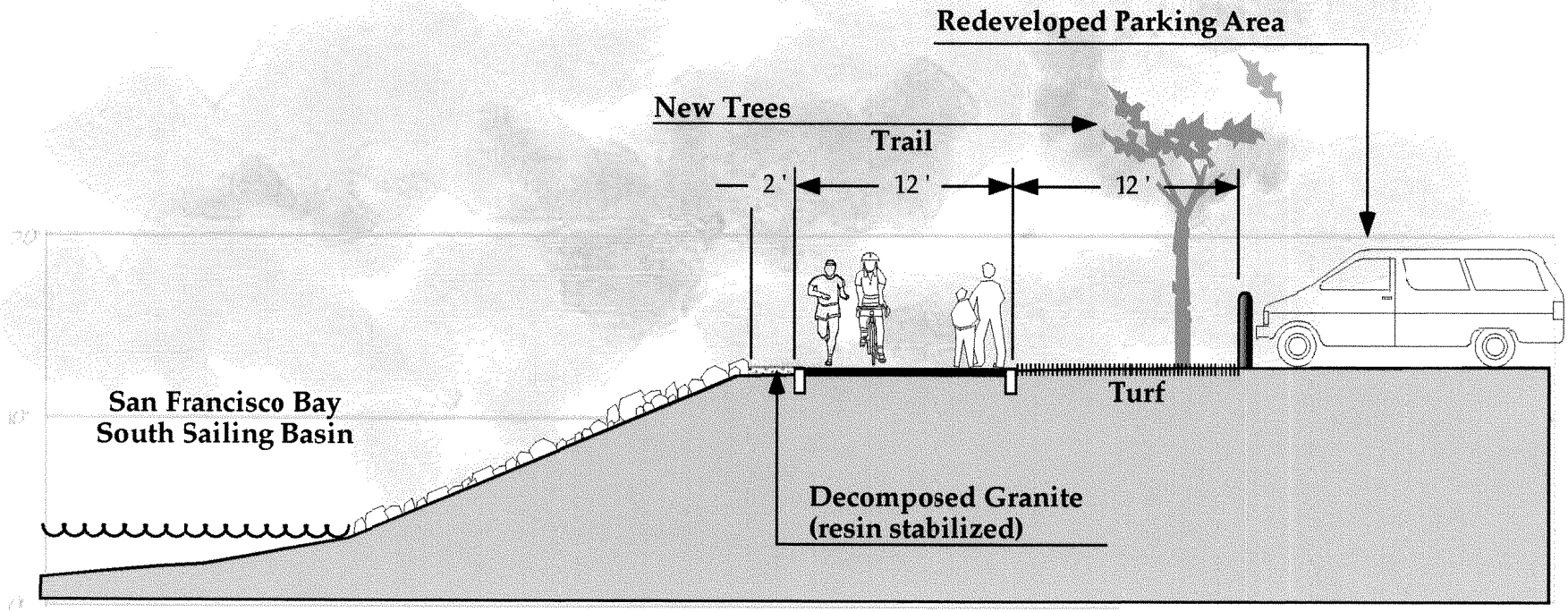
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California Coastal Conservancy

Coastal Conservancy

Project Description: 11/03

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Section 3-4
South Sailing Basin (looking west)



Section
Scale
0 5' 10'

Bay Trail Extension to the Berkeley Marina

Parks Recreation & Waterfront

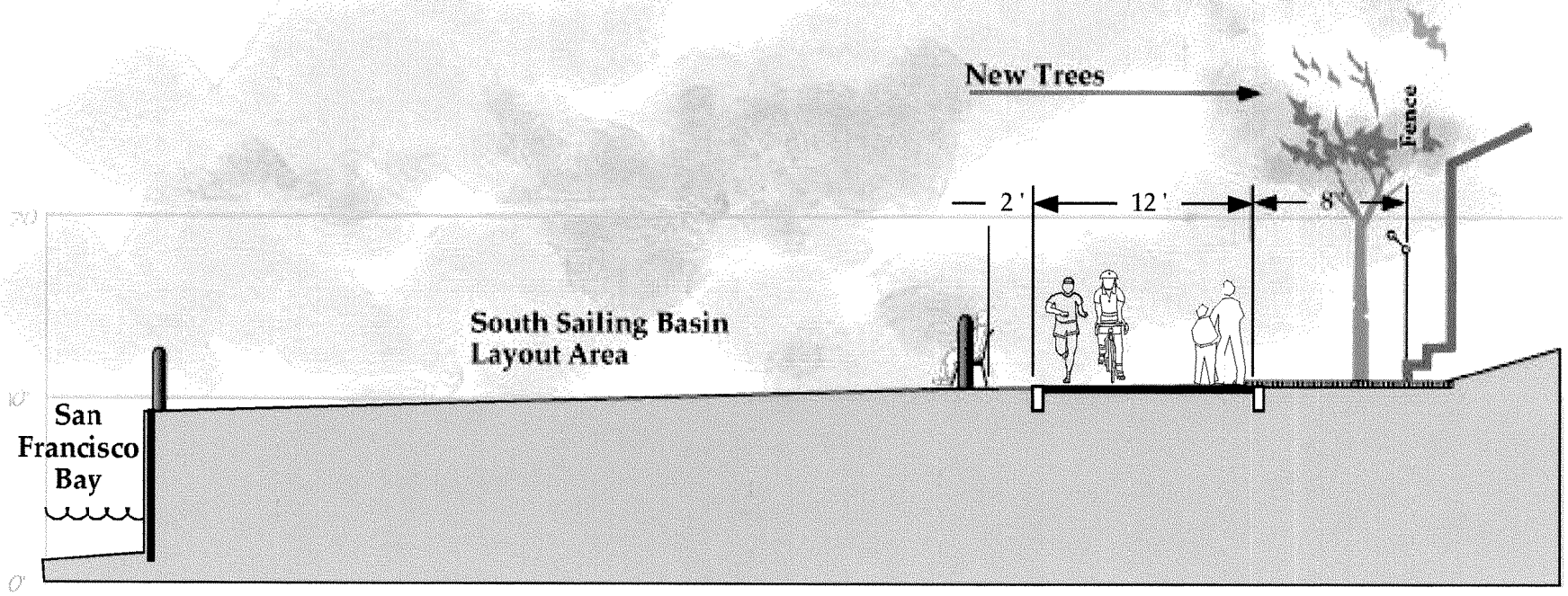
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California Coastal Conservancy

Coastal Conservancy

Project Description: 11/03

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Section 3-5
South Sailing Basin (looking west)



Section
Scale
0 5' 10'

Bay Trail Extension to the Berkeley Marina

Parks Recreation & Waterfront

in partnership with:
Association of Bay Area Governments - Bay Trail Project
California Coastal Conservancy

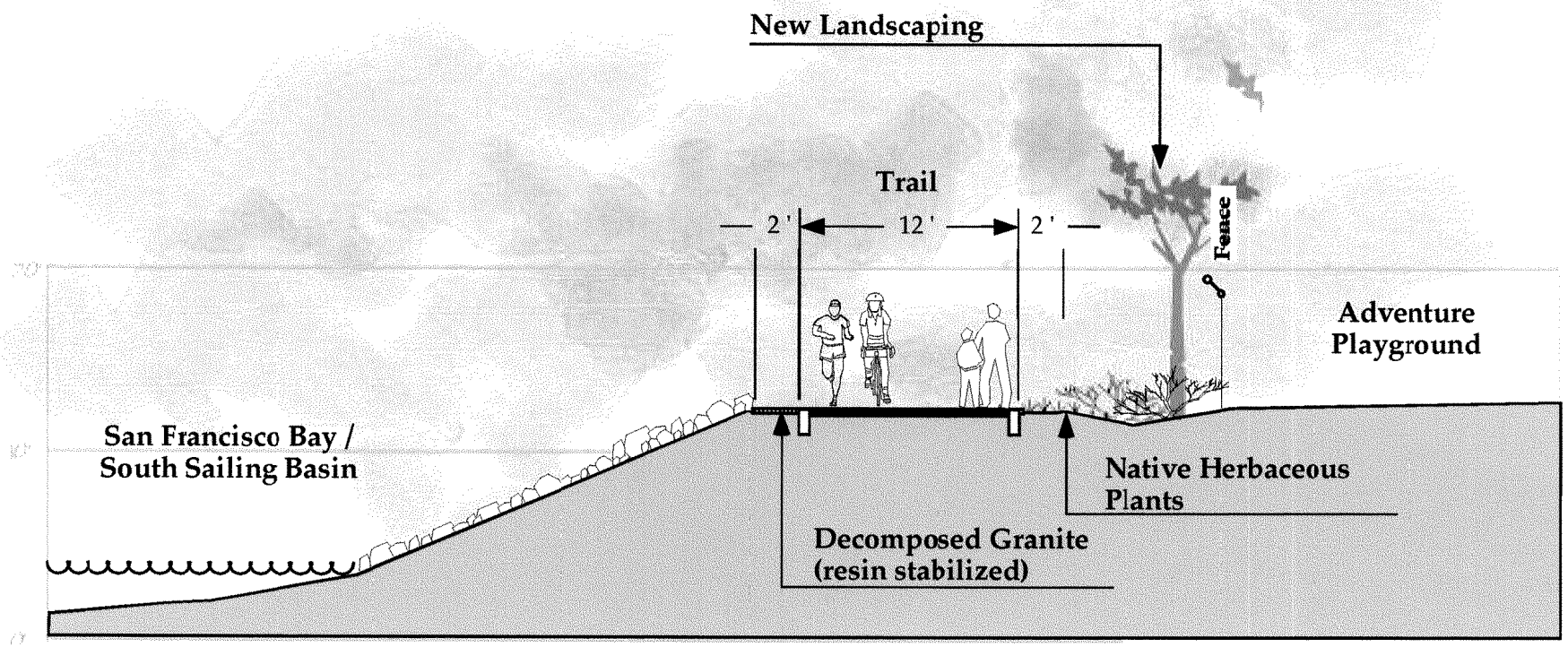
Coastal Conservancy

Project Description: 11/03

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Section 3-6

South Sailing Basin (looking west)



Section
Scale
0 5' 10'

Bay Trail Extension to the Berkeley Marina

Parks Recreation & Waterfront

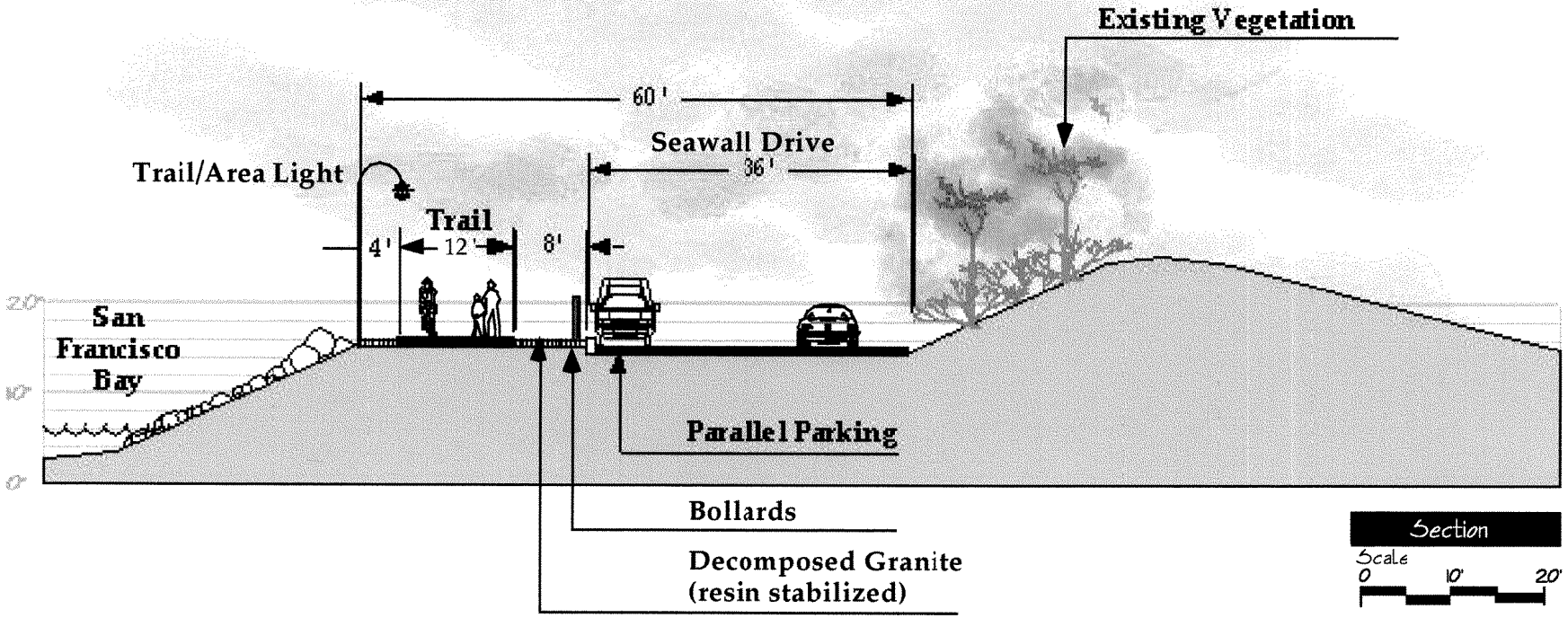
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California Coastal Conservancy

Coastal Conservancy

Project Description: 11/03

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Section 4-1
Seawall Drive (looking north)



Bay Trail Extension to the Berkeley Marina

Parks Recreation & Waterfront

in partnership with:
Association of Bay Area Governments - Bay Trail Project
California Coastal Conservancy

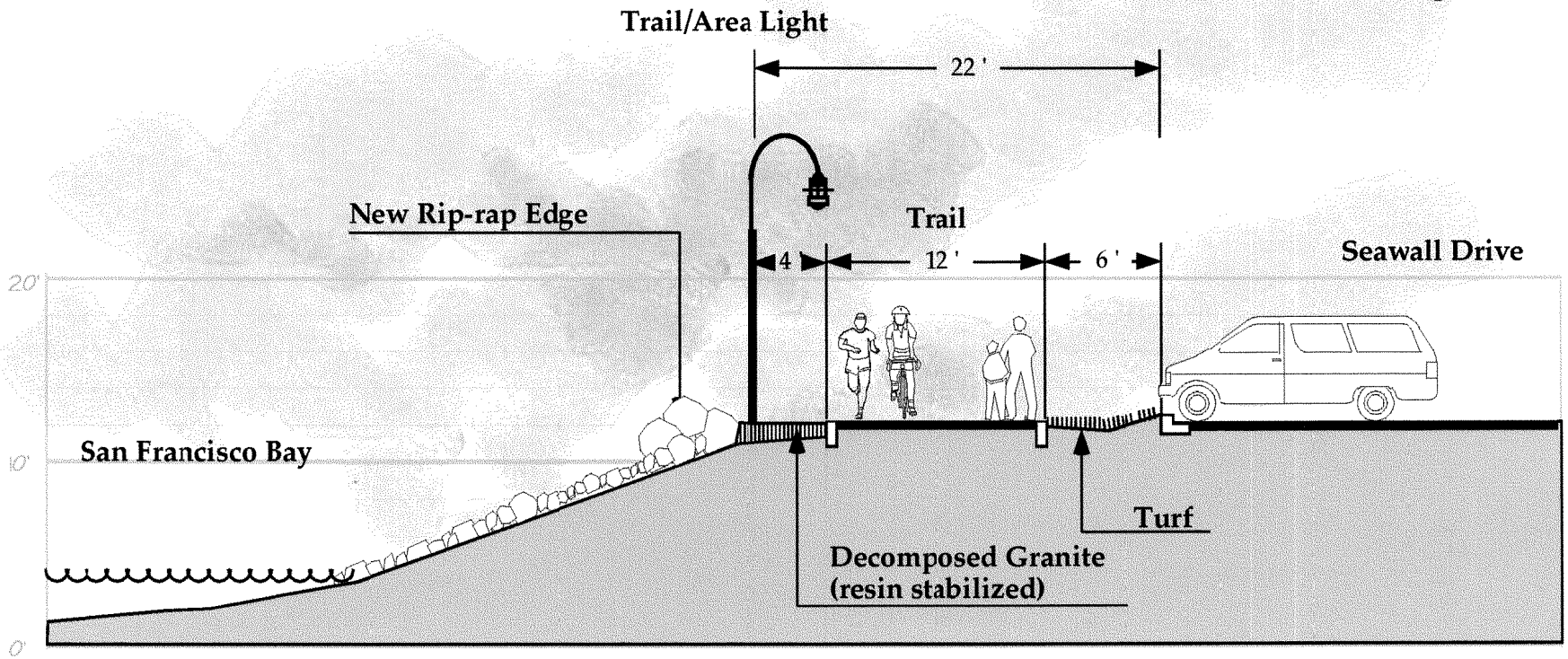
Coastal Conservancy

Project Description (11/03)

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Section 4-2

Seawall Drive (looking north)



Section
Scale
0 5' 10'

Bay Trail Extension to the Berkeley Marina

Project Description: 11/03

Parks Recreation & Waterfront

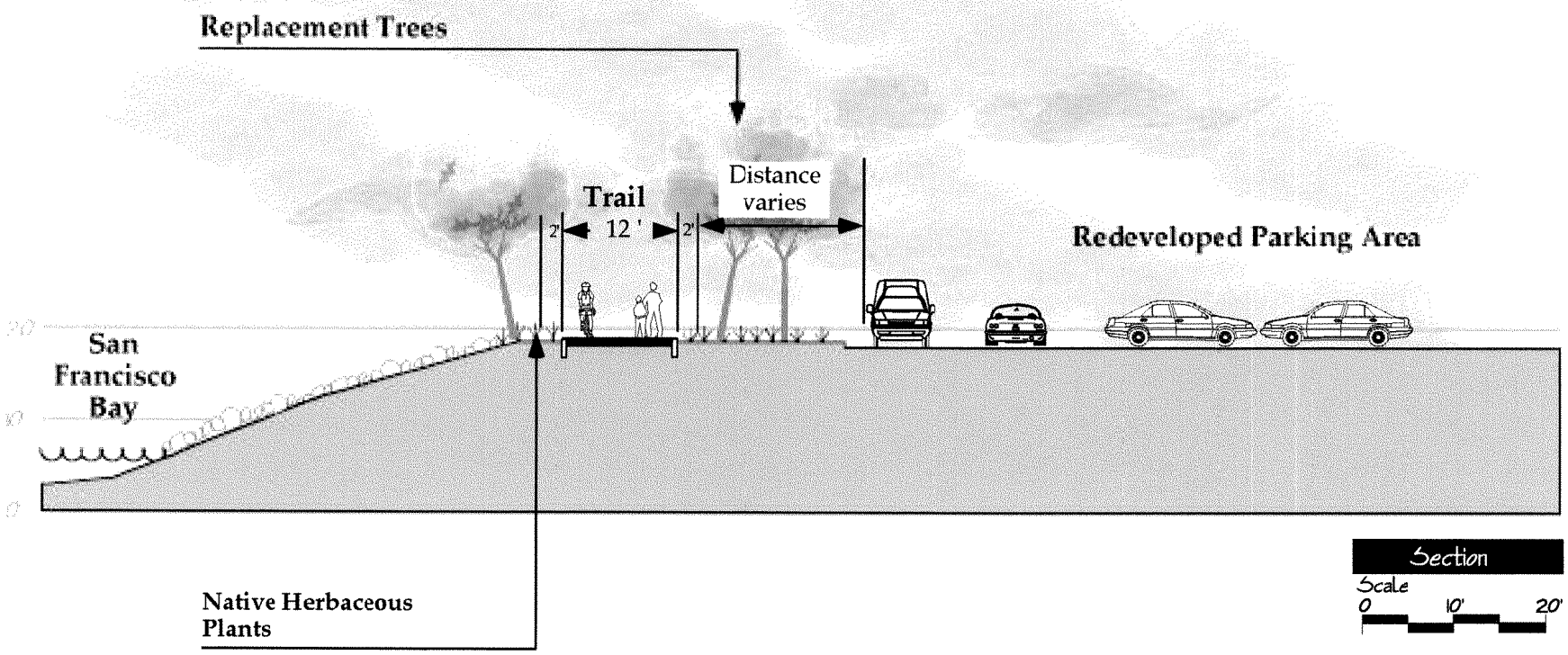
in partnership with:
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California Coastal Conservancy

Coastal Conservancy

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Section 5-1

Hs. Lordships Parking Area (looking south)



Bay Trail Extension to the Berkeley Marina

Parks Recreation & Waterfront

in partnership with:

Association of bay Area Governments - Bay Trail Project

California Coastal Conservancy

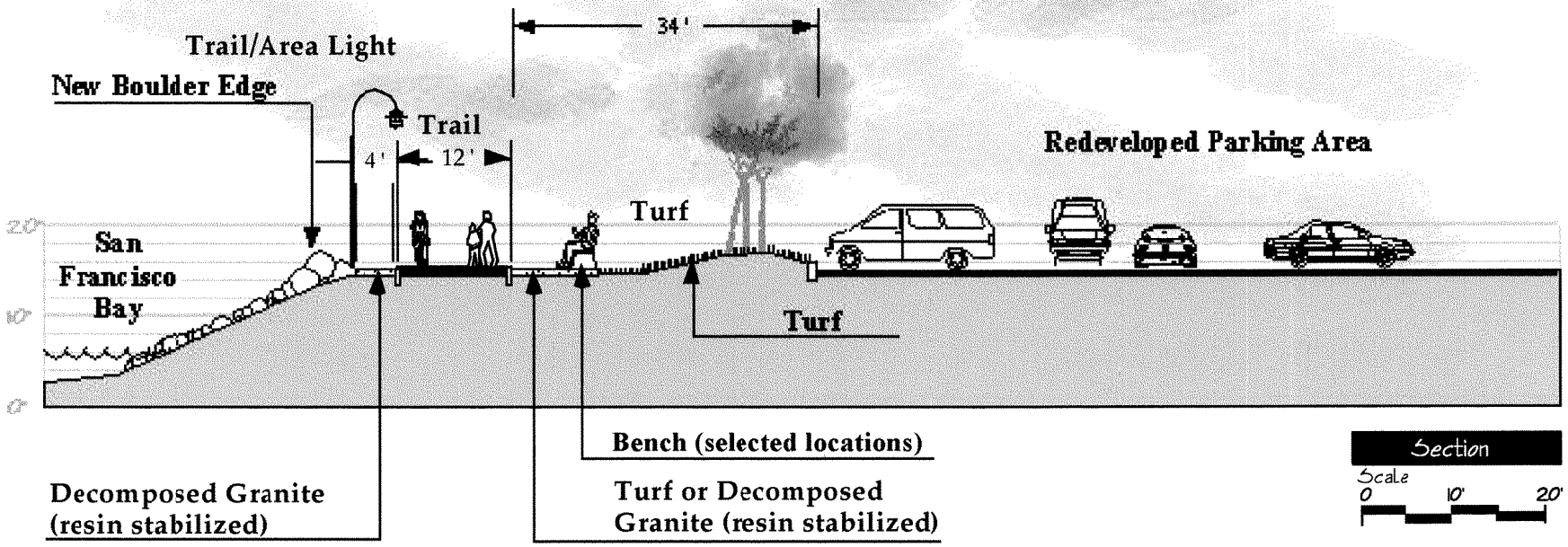
Coastal Conservancy

Project Description (11/03)

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Section 5-2

Hs. Lordships Parking Area (looking north)



Note: Trees and related trail facilities (benches/bollards/lights) will be spaced in southern area to accommodate layout/rigging for windsurfing and kayaks and to facilitate access to the San Francisco Bay.

Bay Trail Extension to the Berkeley Marina

Project Description (11/03)

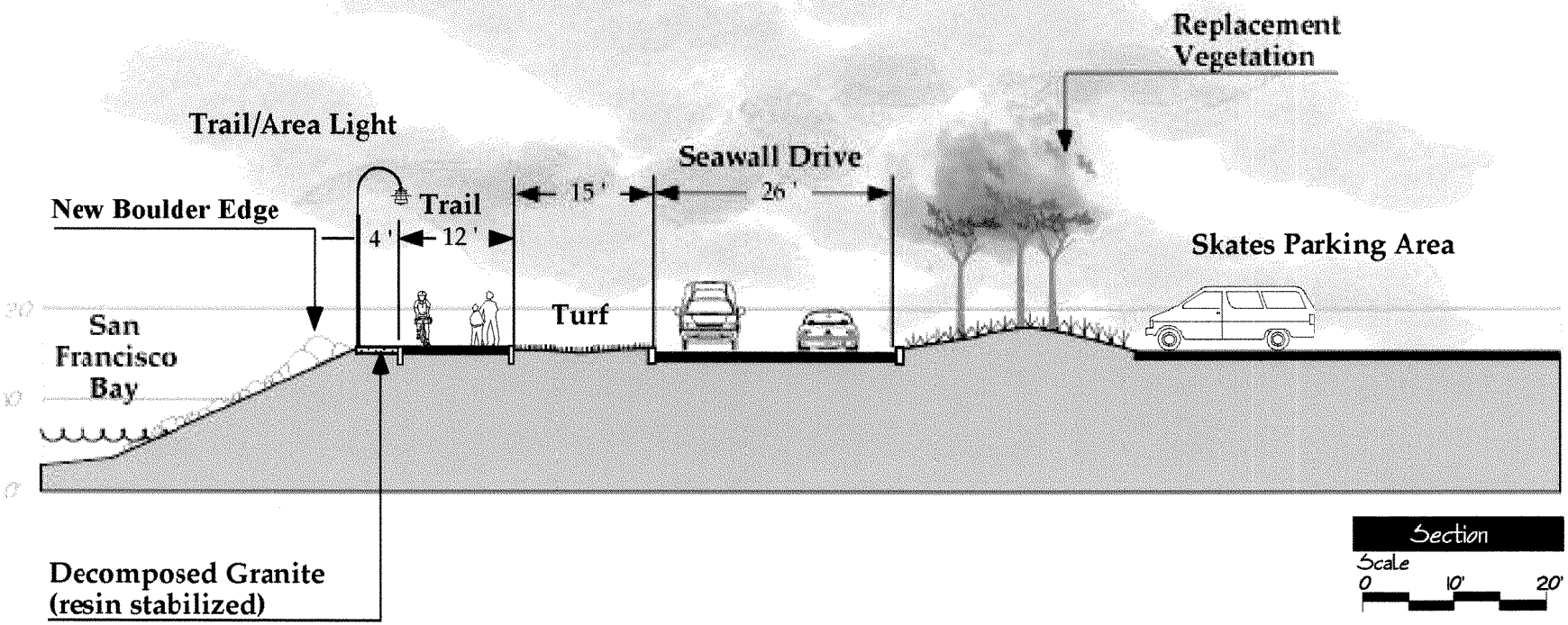
Parks Recreation & Waterfront

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Section 6-1
Seawall Drive (looking north)



Bay Trail Extension to the Berkeley Marina

Parks Recreation & Waterfront

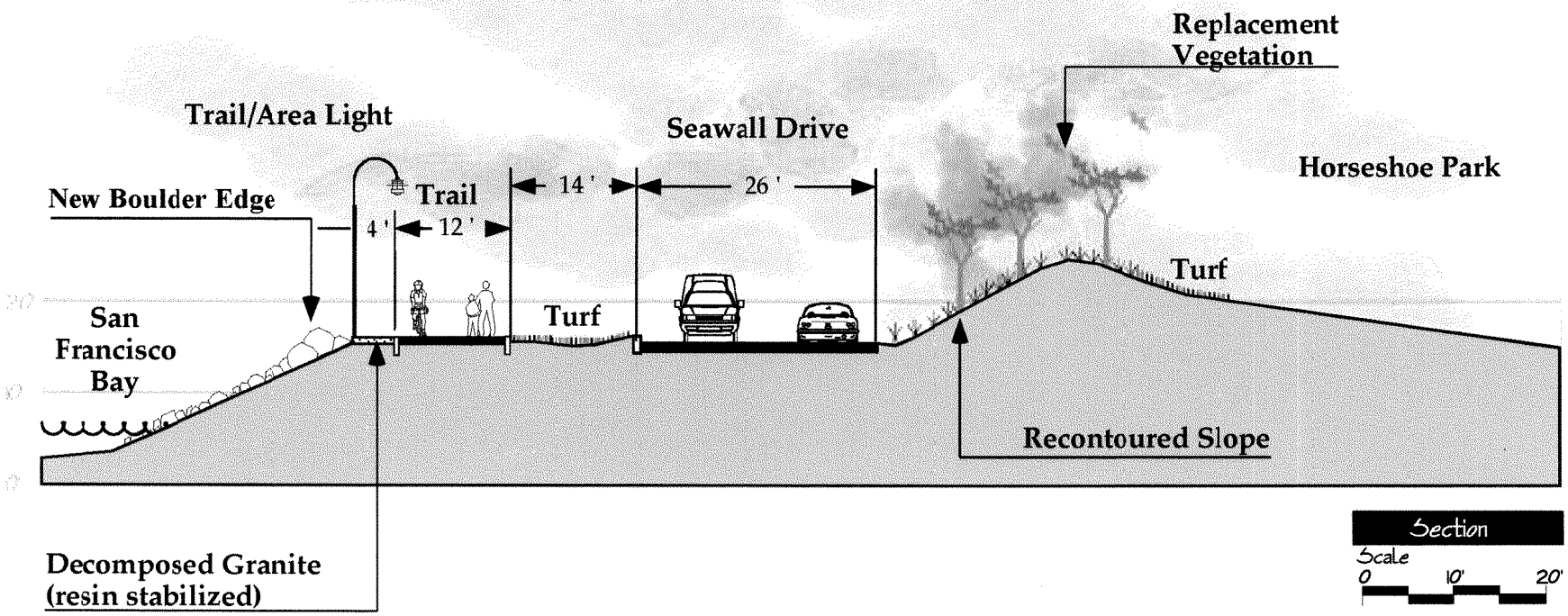
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Project Description (11/03)

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Section 6-2
Seawall Drive (looking north)



Bay Trail Extension to the Berkeley Marina

Project Description (11/03)

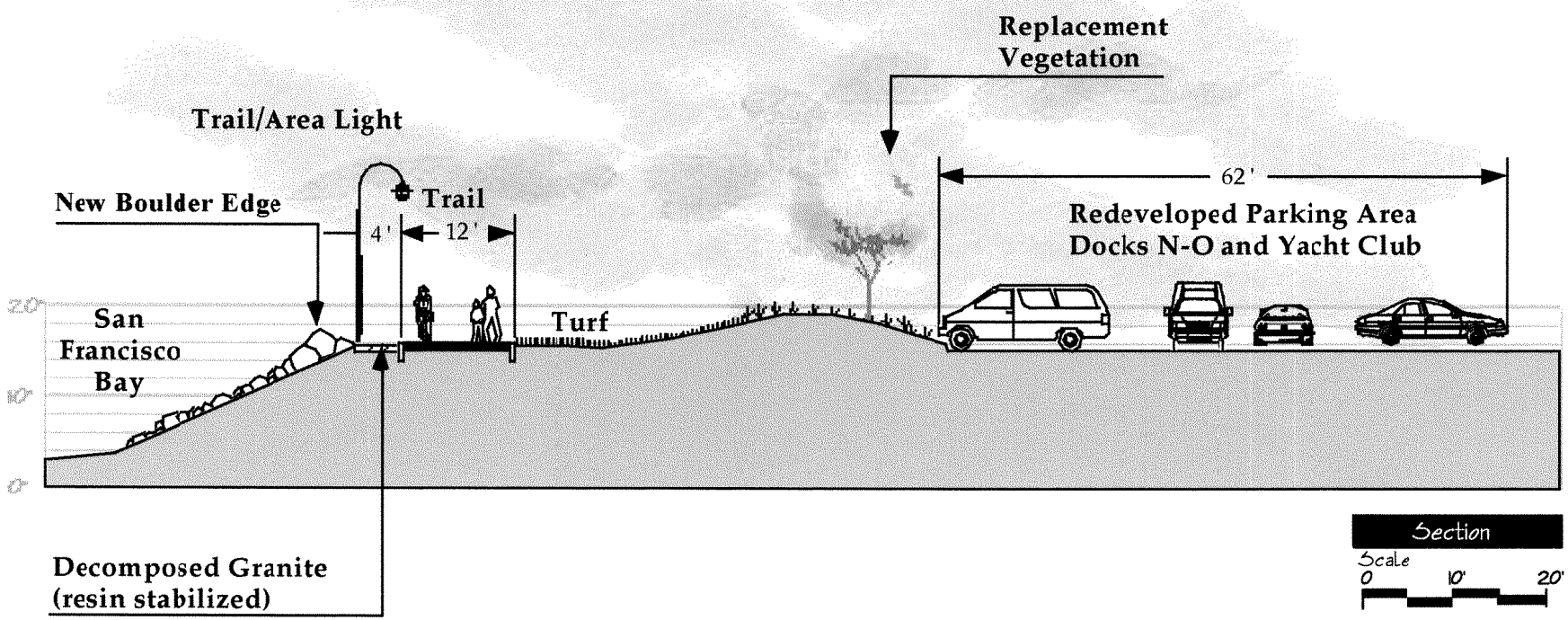
Parks Recreation & Waterfront

in partnership with:
Association of bay Area Governments - Bay Trail Project
California Coastal Conservancy

Coastal Conservancy

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Section 6-3
Seawall Drive (looking north)



Bay Trail Extension to the Berkeley Marina

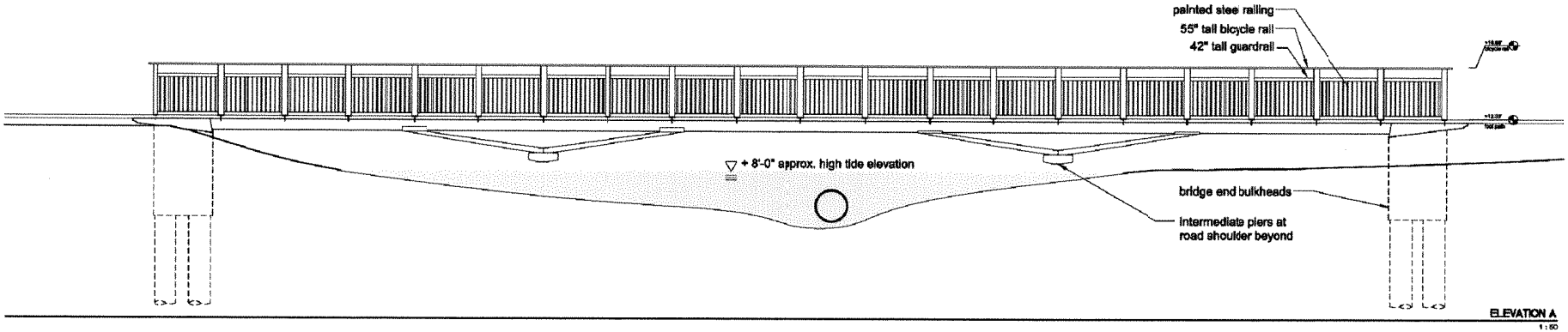
Parks Recreation & Waterfront

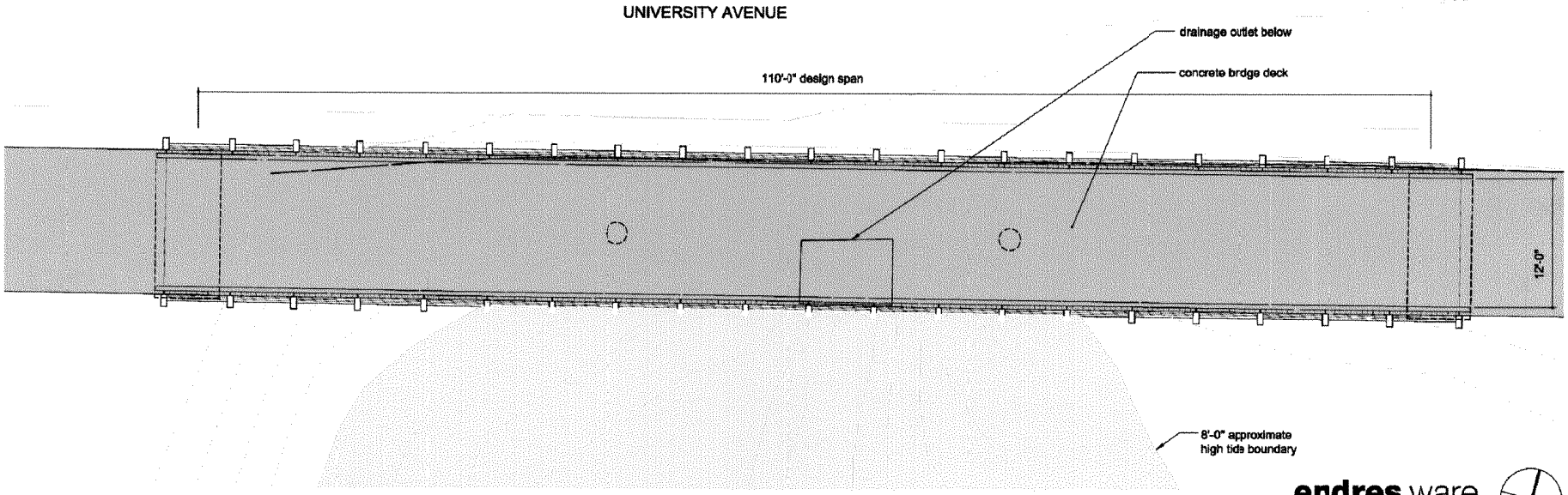
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Project Description (11/03)

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Strawberry Creek Bridge Sketch Plan

evation A

Bay Trail Extension to the Berkeley Marina

Parks Recreation & Waterfront

in partnership with:

Association of Bay Area Governments - Bay Trail Project

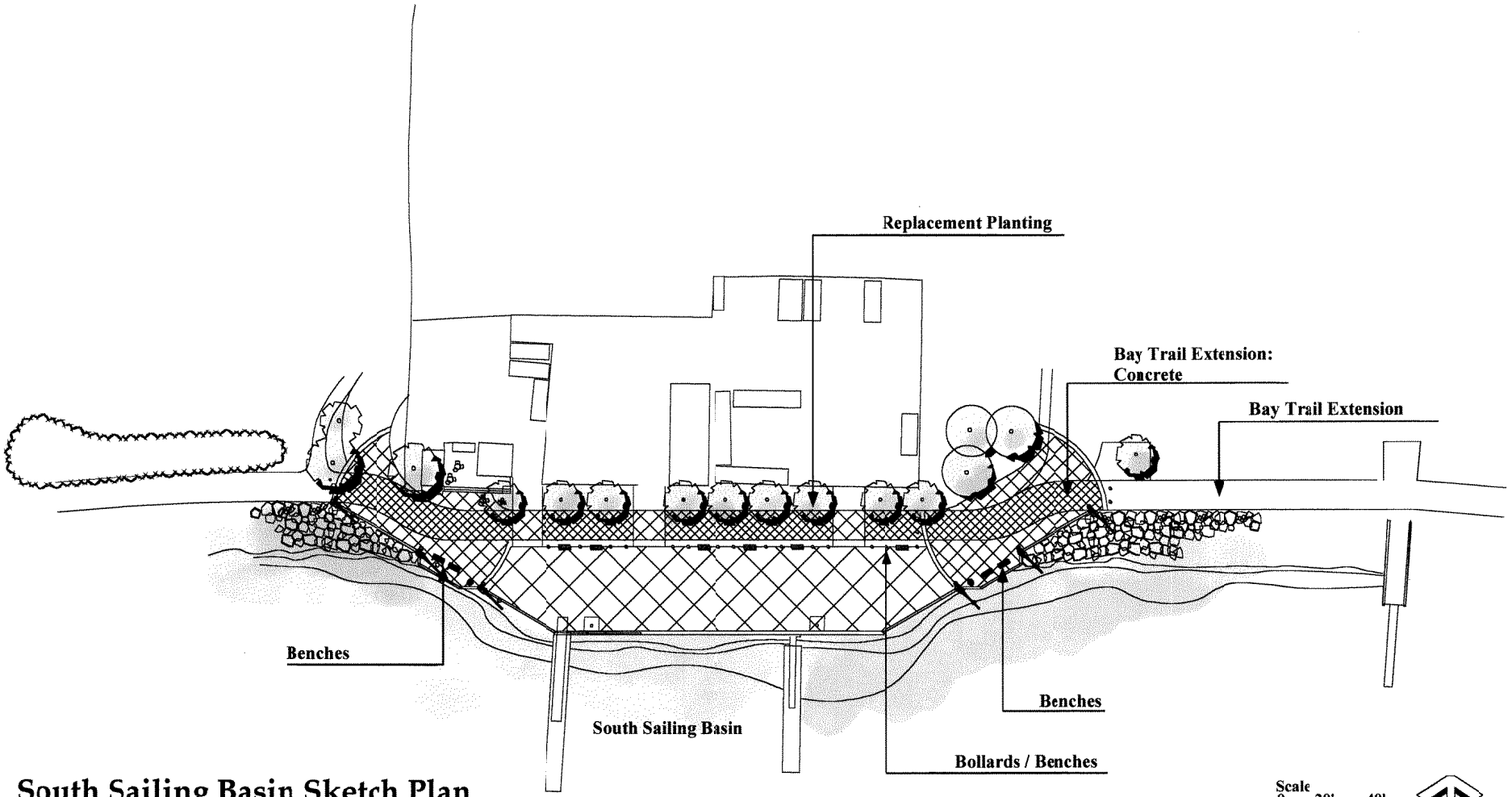
California Coastal Conservancy

Coastal Conservancy

endres ware
architects | engineers

Project Description (11/03)

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South Sailing Basin Sketch Plan

Bay Trail Extension to the Berkeley Marina

Scale 0 20' 40'

North

Parks Recreation & Waterfront

in partnership with:

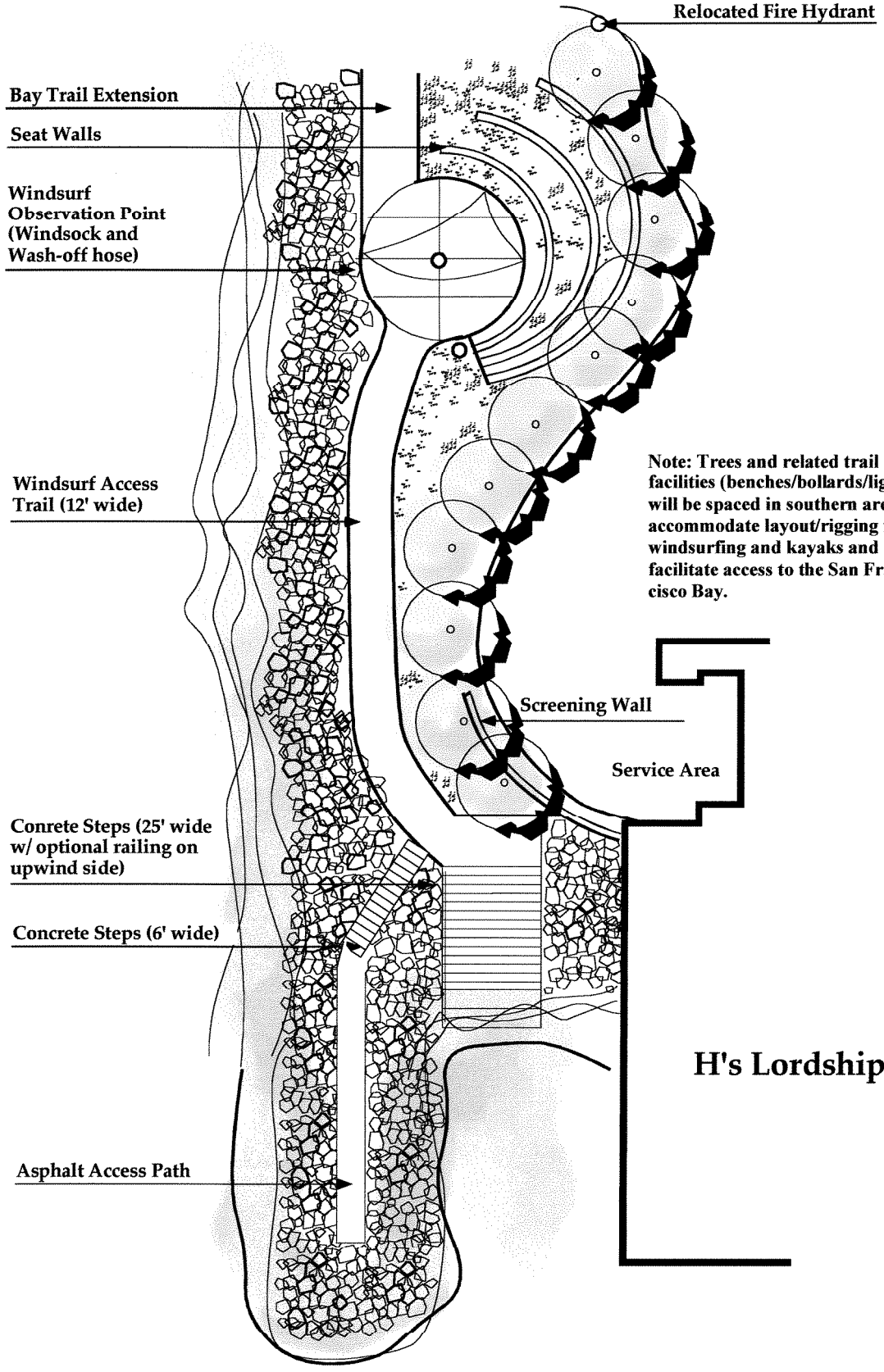
Association of Bay Area Governments - Bay Trail Project

California Coastal Conservancy

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Project Description (11/03)

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Windsurfing / Kayak Access

Bay Trail Extension to the Berkeley Marina

Scale
0 10' 20'

North

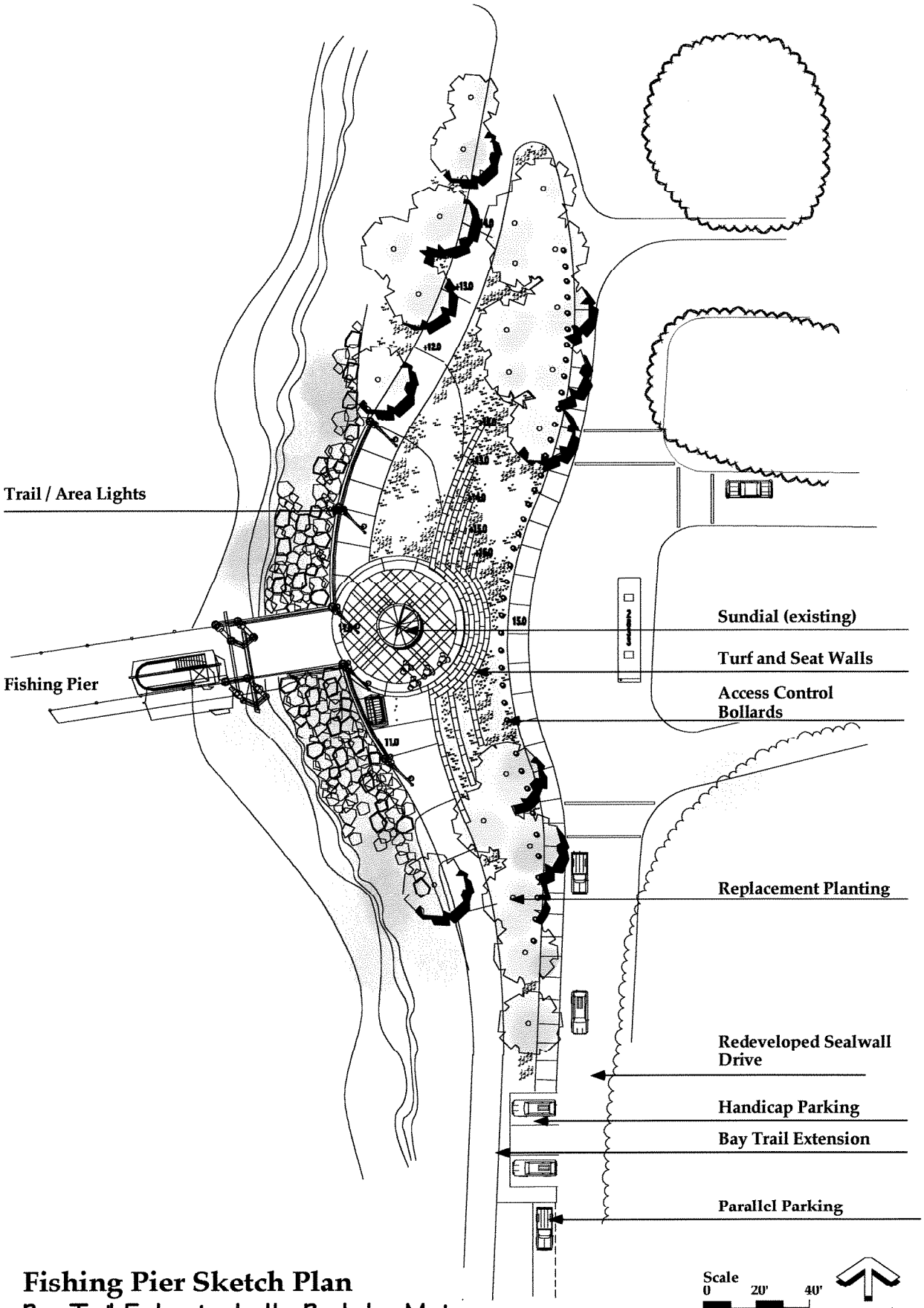
Project Description (11/03)

This drawing is conceptual and for planning and permit-processing purposes only. Program information, scale, location of areas, and other information shown are subject to field evaluation and modification.

Parks Recreation & Waterfront

in partnership with:
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California Coastal Conservancy

Coastal Conservancy



Fishing Pier Sketch Plan

Bay Trail Extension to the Berkeley Marina

Draft Project Description (9/1/03)

Parks Recreation & Waterfront

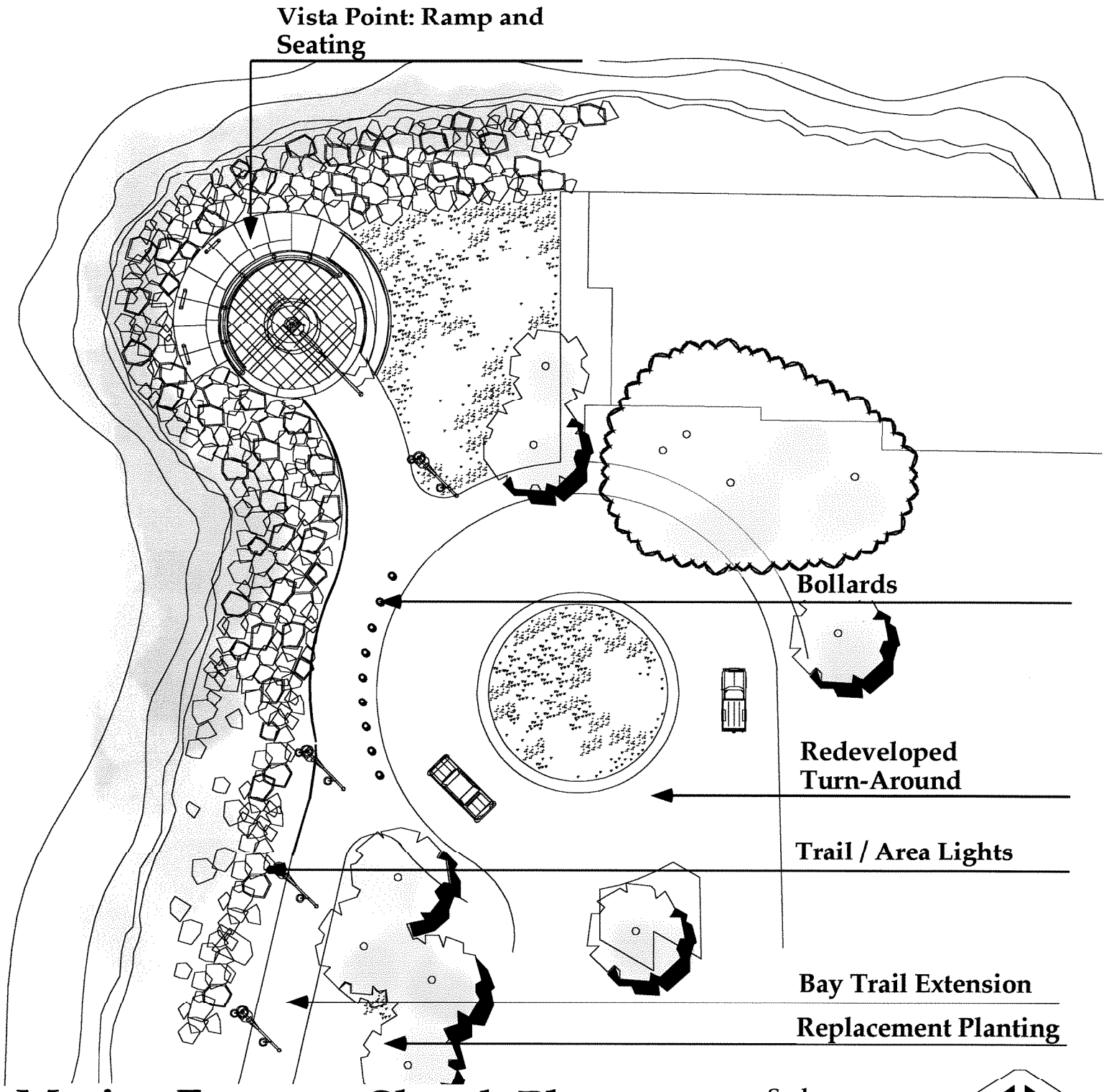
in partnership with:

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California Coastal Conservancy

Coastal Conservancy

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Marina Entrance Sketch Plan

Bay Trail Extension to the Berkeley Marina

Scale 0 20' 40'

North

Project Description (11/03)

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Parks Recreation & Waterfront

in partnership with:

Association of bay Area Governments - Bay Trail Project

California Coastal Conservancy

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APPENDIX B
MASTER PLANT LIST

MASTER PLANT LIST

TREES

Scientific Name	Common Name
Aesculus californica	California Buckeye
Alnus rubra	Red Alder
Cupressus glabra++	Arizona Cypress
Heteromeles arbutifolia	Toyon +
Lyonothamnus floribundus ssp. asplenifolius	Fern-leaf Catalina Ironwood
Pinus canariensis++	Canary Island Pine
Pinus contorta ssp. contorta++	Shore Pine
Pinus densiflora++	Japanese Red Pine
Pinus eldarica++	Mondell Pine
Pinus halepensis++	Aleppo Pine
Pinus pinaster++	Maritime Pine
Pinus pinea++	Italian Stone Pine
Pinus roxburghii++	Chir Pine
Pinus thungergiana++	Japanese Black Pine
PINUS TORREYANA++	Torrey Pine
Populus fremontii ssp. fremontii	Fremont Cottonwood
Umbellularia californica	California Bay

_____

\+ needs pruning into tree form
++ the species is resistant to Pine Pitch Canker and tolerant of a marine environment

WILLOW THICKETS

Scientific Name	Common Name
Salix exigua	Narrow-leaved Willow
Salix gooddingii	Gooding's Black Willow
Salix hookeriana	Coastal Willow
Salix laevigata	Red Willow
Salix lasiolepis	Arroyo Willow

MASTER PLANT LIST *(CONTINUED)*

SHURBS

Scientific Name	Common Name
Arctostaphylos densiflora 'Howard McMinn'	Vine Hill Manzanita
Arctostaphylos densiflora 'Sentinel'	Vine Hill Manzanita
Artemisia californica	California Sage
Atriplex lentiformis ssp. lentiformis	Brewer Saltbush
Ceanothus 'Dark Star'	Wild Lilac
Ceanothus impressus 'Julia Phelps'	Wild Lilac
Ceanothus thyrsiflorus 'Snow Flurry'	Wild Lilac
Eriogonum arborescens	Santa Cruz Island Buckwheat
Eriogonum fasciculatum	California Buckwheat
Eriogonum giganteum	St. Catherine's Lace
Garrya elliptica	Coast Silktassel
Garrya elliptica 'James Roof'	Coast Silktassel
Heteromeles arbutifolia	Toyon
Lupinus albifrons	Silver Bush Lupine
Lupinus arboreus	Yellow Bush Lupine
Lupinus chamissonis	Bush Lupine
Myrica californica	Pacific Wax Myrtle
Rhus integrifolia	Lemonade Berry
Rhus ovata	Sugar Bush
Prunus ilicifolia ssp. ilicifolia	Holly-leaf Cherry
Salvia clevelandii	Cleveland Sage
Salvia mellifera	Black Sage

GROUND COVERS

Scientific Name	Common Name
Arctostaphylos edmundsii 'Carmel Sur'	Little Sur Manzanita
Arctostaphylos 'Emerald Carpet'	Emerald Carpet Manzanita
Arctostaphylos uva-ursi 'Massachusetts'	Bearberry
Arctostaphylos uva-ursi 'Pt. Reyes'	Bearberry
Arctostaphylos uva-ursi 'Wood's Red'	Bearberry

GROUND COVERS *(CONTINUED)*

Scientific Name	Common Name
Artemisia pycnocephala	Sandhill Sage
Baccharis pilularis 'Pigeon Point'	Dwarf Coyote Brush
Ceanothus gloriosus 'Anchor Bay'	Point Reyes Ceanothus
Ceanothus griseus horizontalis 'Yankee Point'	Carmel Creeper
Ceanothus maritimus 'Frosty Dawn'	Wild Lilac

HERBACEOUS/MIXED WILDFLOWERS

Scientific Name	Common Name
Achillea millefolium	Yarrow
Armeria maritima ssp. *californica*	Sea Thrift
Clarkia amoena	Farewell-to-Spring
Clarkia rubincunda	Ruby Chalice Clarkia
Clarkia unguiculata	Elegant Clarkia
Epilobium canum	California Fuchsia
Erigeron glaucus	Seaside Daisy
Eschscholzia californica	California Poppy
Iris douglasiana	Douglas Iris
Lasthenia glabrata	Goldfields
Lupinus microcarpus	Lupine
Lupinus nanus	Sky Lupine
Lupinus succulentus	Arroyo Lupine
Lupinus varicolor	Lupine

NATIVE GRASSES

Scientific Name	Common Name
Festuca californica	California Fescue
Leymus mollis ssp. mollis	Dune Grass

APPENDIX C
MITIGATION MONITORING PROGRAM

MITIGATION AND MONITORING PLAN

Introduction

The City of Berkeley proposes the Berkeley Bay Trail Extension project as a spur of the San Francisco Bay Trail to improve bicycle and pedestrian access to the Berkeley Marina. The Bay Trail Extension alignment is approximately 1.3 miles long and extends from the existing ramp leading from the I-80 bicycle/pedestrian overcrossing through the Berkeley Marina to the entrance adjacent to the Berkeley Yacht Club.

The proposed alignment is divided into 5 segments from funding and implementation perspectives. Initial trail development will consist of the eastern-most segment leading from the existing I-80 bicycle /pedestrian overcrossing to the southwest corner of the East Lawn of the Marina. Remaining segments will be built out as funding is appropriated. The main elements of the trail include a 12-foot-wide multi-use path that includes 2-foot-wide graded shoulders. Several other features will also be included in the Trail design such as lighting and benches. Parking areas will be redesigned as will area drainage. A pedestrian bridge is proposed for installation over Strawberry Creek Cove. Construction involves removal of existing path and/or structures and trees and installation of a new path.

Mitigation Monitoring Table

This Mitigation and Monitoring Plan (MMP) outlines procedures for the implementation of mitigation measures identified in the 2003 Bay Trail Extension to the Berkeley Marina Initial Study/Mitigated Negative Declaration (IS/MND) to reduce all potential environmental effects of the proposed action to less than significant levels. The City of Berkeley and its contractors must fully comply with the conditions and measures described in this MMP. The attached table provides a Mitigation and Monitoring Plan (MMP) for the proposed action.

The MMP is organized in table format and is keyed to each mitigation measure identified in the IS/MND. The MMP is organized by environmental issue area, and discusses only those impacts for which mitigation has been identified. The intent of the formatting the MMP as a table is to provide the reader with a concise and quick summary of the measures to be implemented, agencies involved, timing of implementation, and frequency of monitoring. The purpose of each heading column is as follows:

- Mitigation Measure: A summary of the mitigation requirements
- Implementing Action: Actions necessary to implement mitigation
- Method of Verification: The method to ensure that the mitigation measure has been implemented
- Timing of Verification: A schedule for conducting each mitigation monitoring and reporting action
- Responsible Parties: The agencies responsible for monitoring implementation mitigation measures. Other agencies involved in the implementation of the measure are also listed.

Mitigation and Monitoring Plan Table for the Bay Trail Extension to the Berkeley Marina

MITIGATION	IMPLEMENTING ACTION	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY
4.3.1-1. A tree removal and replacement design plan shall be submitted to the City for approval that outlines the exact species and location of trees to be removed as well as the species, location and size of replacement trees. Trees greater than 6 inches dbh shall be replaced at a 4:1 ratio. Tree root growth shall be considered when choosing replacement tree location to minimize chances of uprooting the trail or other structures. Irrigation and replacement tree maintenance shall also be included in the plan. The plan shall be implemented prior to the completion of the project.	The City will approve of the tree removal and replacement design plan before construction begins	Review of design plan and verification of approval	Before construction begins for each segment	City of Berkeley
4.3.3-1. Prior to site grading, a grading plan shall be submitted to the City of Berkeley Planning Department for review. The grading plan shall include measures to reduce emissions from construction equipment and wind blown soils that shall include, but not be limited to, twice-daily watering of disturbed soils as necessary during dry periods, proper maintenance of construction equipment, and other Best Management Practices to reduce windblown dust. The grading plan shall be followed for all construction activities for the project. Measures included in Table 1 shall also be incorporated into the grading plan (refer to (c) below).	The City of Berkeley will approve of the grading plan before construction begins	Review of grading plan and verification of approval	Before construction begins for each segment	City of Berkeley

MITIGATION	IMPLEMENTING ACTION	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY
4.3.4-1. Conduct surveys for burrowing owls within 30 days prior to all construction in all areas identified at the time of construction to have suitable habitat for burrowing owls, following the CDFG survey protocol currently in effect at that time. If construction activities are delayed or suspended for more than 30 days, the site shall be re-surveyed. A construction buffer shall be established around each occupied burrow, at a minimum radius of 160 feet (50 meters) from the burrow during the non-breeding season (September 1 through January 31) and 250 feet (75 meters) from the burrow during the breeding season (February 1 through August 31). During the non-breeding season, if such buffers cannot be protected, the burrowing owls shall be passively relocated prior to construction, subject to prior approval of CDFG (CDFG does not allow relocation of burrowing owls during the breeding season).	The City will coordinate with a qualified wildlife biologist to conduct a burrowing owl preconstruction survey, and to establish buffer zones around any dens. If buffers cannot be protected, than in the non-breeding season burrowing owls will be passively relocated by the qualified biologist after coordination with the CDFG.	Review survey results. Coordinate with Contractor to ensure that buffer zones are respected and CDFG is notified in cases where owls need to be relocated.	Ensure that surveys occur within 30 days of construction. Periodically verify that buffer zones are being observed. Monitor passive relocation of owls as necessary	City of Berkeley CDFG
4.4.4-2. If any trees (greater than 15 feet tall) are to be removed during the breeding season (between March 1st through August 31st), survey shall be conducted for white-tailed kite, Cooper's hawk, red-tailed hawk, red-shouldered hawk, and other raptors within 30 days prior to tree removal. If an active raptor nest(s) is located in or within 200 feet from the project site, a construction buffer, at a minimum radius of 200 feet from the dripline of the nest tree, shall be established around each nest until nesting activities have ended. No construction activities shall be allowed within the 200-foot buffer(s) until the nesting raptors have left the nest(s).	The City will coordinate with a qualified biologist if any trees greater than 15 feet tall are to be removed between March 1st, and August 31st. The biologist will conduct raptor surveys and establish construction buffers if necessary	Review tree removal plans Review survey results. Coordinate with Contractor to ensure that buffer zones are respected.	Ensure that surveys occur within 30 days of construction. Periodically verify that buffer zones are being observed.	City of Berkeley

MITIGATION	IMPLEMENTING ACTION	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY
4.3.4-3. If any excavated soil is to be moved off-site, such excavation areas shall first be inspected by a qualified botanist, who shall identify those areas that are potentially contaminated by perennial pepperweed seeds or root stock. Soil excavated from the identified areas shall be disposed of within the project site or in a qualified landfill.	The City will coordinate with a qualified botanist to inspect areas for perennial pepperweed seeds or root stock prior to excavation. The City will ensure proper disposal if contaminated soil is identified.	Verify that a biologist inspects the area. Review disposal plans/contracts. Monitor on-site for compliance	Prior to excavation in the Strawberry Cove area.	City of Berkeley
4.3.4-4. Prior to construction, the City of Berkeley shall obtain permits from the Corps, RWQCB, and BCDC for impacts and project features within the jurisdiction of those agencies. The City shall comply with the terms and conditions of those permits, including mitigation measures, if required.	The City will obtain permits from the Corps, RWQCB, and BCDC and comply with the terms of these permits	Review permits and periodically monitor for compliance with terms of permits	Prior to construction and monitor during construction	City of Berkeley, Corps, BCDC, RWQCB
4.3.4-5. No construction equipment or disturbance shall be allowed within the two seasonal wetlands or within 10 feet from the wetlands. A 10-foot-wide buffer shall be established around each wetland to protect it during construction, and silt fencing shall be installed at the outer edge of the buffers. The silt fencing shall be properly maintained during construction and properly removed after construction to avoid impacts on wetlands.	The City will ensure that a 10 foot buffer is established around each wetland and silt fencing is installed and maintained	Periodically monitor for compliance	Prior to construction and monitor during construction	City of Berkeley
4.3.4-6. The City of Berkeley shall use trash receptacles within the Eastshore State Park that are designed to be inaccessible to animals.	The City will ensure that receptacles that are inaccessible to animals are used.	Verify at the end of construction that proper receptacles are in place	At the end of construction	City of Berkeley
4.3.5-1. If archaeological resources are discovered during excavation, all work in the immediate vicinity shall be suspended pending site investigation by a qualified archaeologist to assess the materials and determine their significance. If a qualified professional determines that the resource shall yield new information or important verification of previous findings, construction in the immediate area shall not resume until state and federal officials have been consulted and the resources appropriately evaluated and treated, as required under federal and state regulations.	If a resource is discovered, the Contractor will suspend work in the vicinity of the resource until a site investigation by an archeologist is conducted. If the resource is significant, the City will not allow construction to resume until state and federal officials have been consulted.	If a resource is discovered, monitor site to ensure work is stopped. Coordinate with archeologist to verify status of resource and review agency consultation documentation	As necessary during construction	City of Berkeley

MITIGATION	IMPLEMENTING ACTION	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY
4.3.5-2. If archaeological resources are discovered during excavation for the proposed action and avoidance of these resources is not feasible, evaluation of the resources shall be required. An evaluation plan shall be prepared that provides for the methodical excavation of resources that would be adversely affected. Only a qualified archaeologist shall be allowed to collect any discovered prehistoric resources. The work shall be accomplished within the context of a detailed research design and in accordance with current professional standards. The plan shall result in the extraction of sufficient volumes of non-redundant archaeological data to address important regional research issues. Detailed technical reports shall be prepared to document the findings. If the resources are determined to be eligible for listing on the NRHP, an appropriate treatment (mitigation) plan shall be developed and implemented. Treatment would include data recovery to gather the information contained in the site.	The City will prepare and evaluation plan if avoidance of any found resources is not feasible. The City will ensure that only a qualified archeologist handles prehistoric resources The City will ensure detailed reports to document any findings are prepared	Review of evaluation plan if necessary. Monitor site for compliance of mitigation if resources are found. Review reports and treatment (mitigation plan) if necessary	As necessary during construction	City of Berkeley, NRHP
4.3.5-3. If the project sponsor or any construction contractors discover prehistoric archaeological deposits that include human remains during excavation for the proposed project, the County Coroner shall be immediately notified. If the remains are found to be Native American, local Native American groups and the Native American Heritage Commission (NAHC) shall be notified within 24 hours. The most likely descendents of the deceased Native American shall be notified and given the chance to make recommendations for the remains. If no recommendations are made within 24 hours, remains may be reinterred elsewhere on the property. If recommendations are made and not accepted, the NAHC shall mediate the problem.	The City will notify the County Coroner if necessary and if the remains are Native American, the City will notify local Native American groups and the NAHC and carry out any recommendations	Monitor site for compliance of mitigation if remains are found	As necessary during construction	City of Berkeley, NAHC

MITIGATION	IMPLEMENTING ACTION	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY
4.3.6-1. The Strawberry Creek Bridge shall be designed by a licensed engineer and shall conform to the seismic design standards of Caltrans and the Uniform Building Code (UBC).	The City will coordinate with a licensed engineer to prepare the Bridge design	Review and approval of bridge design	Prior to construction	City of Berkeley
4.3.6-2. Prior to ground disturbance, a grading plan shall be submitted to the City Public Works Department for review. The grading plan shall include a construction erosion control plan with Best Management Practices designed to minimize sediment in site runoff during construction. The provisions shall include: limiting the size of areas disturbed, watering of disturbed soils twice daily, avoiding long unbroken flow paths, making drainage swales broad and flat, and routing off-site drainage around newly disturbed areas. The grading plan shall also have provisions for minimization of grading and excavation and for a balance of cut and fill. Trapping sediment before it leaves the construction site would minimize any potential sedimentation of waterways. This would be accomplished through the use of riprap, or siltation fencing. (Sediment fencing is preferred over hay bales because use of hay has been found to proliferate the expansion of invasive and non-native species.) Any disturbed areas should be revegetated as soon as possible once construction is completed; where appropriate, topsoil should be stockpiled and used for the revegetation of disturbed areas. This plan shall be implemented during project construction.	The City will approve the grading plan and ensure its implementation during construction	Review and approval of grading plan and periodically monitor for compliance	Prior to construction and monitor during construction	City of Berkeley
4.3.6-3. Earthmoving activities shall not occur during rainy periods of the year.	The City will prepare construction schedules outside of the rainy season	Review of schedule	Prior to construction	City of Berkeley

MITIGATION	IMPLEMENTING ACTION	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY
4.3.7-1. Excavated soils from all non-paved areas shall be handled such that dust is controlled, minimizing exposure to construction crews and recreationalists.	The City will ensure that Contractor controls dust	Monitor periodically	During Construction	City of Berkeley
4.3.7-2. Excavated and freshly exposed soils in the Berkeley Brickyard shall be tested for petroleum hydrocarbons, metals and CPOCs. Prior to disposal or reuse, any excavated soils found to contain contaminants at levels considered unsafe for human exposure or environmental exposure shall be disposed of appropriately. If exposed soil is found to contain CPOCs, a layer of uncontaminated, clean soil shall be imported and filled over the existing soil to prevent exposure of CPOCs in the surface layer.	The City will coordinate with Contractor to ensure that excavated soils from the Berkeley Brickyard are tested for petroleum hydrocarbons and metals	Review test results	Prior to Construction	City of Berkeley
4.3.7-3. The City shall coordinate with the California Department of Toxic Substance Control (CDTSC) Voluntary Cleanup Program and take the necessary steps to ensure proper cleanup and disposal of any contaminated soils encountered during construction.	The City will coordinate with the Contractor to ensure proper cleanup and disposal of contaminated soils	Monitor periodically	During Construction	City of Berkeley, CDTSC
4.3.8-1 All necessary permits from the San Francisco Bay Regional Water Quality Control Board (RWQCB) shall be obtained before construction. A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared in accordance with Section 4019(A)(1) of the Clean Water Act. The plan shall address control of runoff from parking lots and other impervious surfaces.	The City will obtain necessary permits and ensure a SWPPP is prepared The City will ensure that all conditions are implemented	Review permits and SWPPP Monitor periodically	Prior to construction Monitor during construction	City of Berkeley, RWQCB
4.3.8-2. Renovated parking lots shall be designed with grease traps installed in storm drains and shall be subject to periodic maintenance.	The City will approve parking lot designs The City will ensure storm drain maintenance	Review and approval of parking lot design Monitor storm drain maintenance	Prior to construction During operation of Trail	City of Berkeley
4.3.8-3. The project shall be subject to meet all requirements as listed in the Alameda Countwide Clean Water Program (ACCWP)	The City will ensure design plans meet the requirements of ACCWP	Review and approval of design plans	Prior to Construction	City of Berkeley

MITIGATION	IMPLEMENTING ACTION	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY
Clean Water Program (ACCWP).				
4.8.9-1. For the portions of the Bay Trail Extension that are within the Eastshore State Park, agreements shall be formalized between the City of Berkeley and the California Department of Parks and Recreation to allow the City of Berkeley to make improvements on State Lands.	The City will make necessary agreements	Review of agreements	Prior to Construction	City of Berkeley, California Department of Parks and Recreation
4.8.9-2. A permit from the BCDC shall be secured for the proposed project before construction can commence, if necessary. The design plans for the Berkeley Bay Trail Extension and any associated structures shall be submitted for approval upon certification of this Negative Declaration.	The City will obtain necessary permits and ensure that the design plans are submitted for approval by the BCDC	Review of BCDC approvals	Prior to construcion	City of Berkeley, BCDC
4.8.9-3. The SLC shall be consulted and any permits or leases shall be secured, if necessary, for the City of Berkeley to make improvements on State Lands.	The City will initiate consultation with SLC and ensure leases or permits are secured if necessary.	Review of permits or leases or consultation	Prior to construction	City of Berkeley, SLC
4.3.11-1. Noise control equipment shall be used on construction equipment (i.e. mufflers) to reduce noise levels. Impact tools should be shielded or shrouded when practical and all equipment should have muffled exhaust systems.	The City will coordinate with the contractor to ensure noise control equipment is used	Periodically monitor	During construction	City of Berkeley
4.3.11-2. During pile driving activities at Strawberry Cove, the City of Berkeley shall place warning signs identifying the potential for increased noise levels in the vicinity due to construction activities. These signs should be placed along public access routes approximately 500 feet from the site of pile driving activities. This distance would reduce noise levels generated by pile driving to approximately 70 dBA, which would be consistent with City of Berkeley noise guideline	The City will place warning signs 500 feet from pile driving activity	Periodically monitor	During construcion	The City of Berkeley
4.3.13-1. Fire access lanes through the parking lots shall be designed to meet appropriate standards and the guidelines of the Uniform Fire Code and the City of Berkeley Planning Department. Fire access routes shall be clearly identified and recognizable, be at least 20 feet wide, have at least a 13'6'' vertical	The City will ensure that parking lot designs comply with the Uniform Fire Code and City of Berkeley Planning Department guidelines	Review of parking lot design	Prior to construction	City of Berkeley, City of Berkeley Fire Department

MITIGATION	IMPLEMENTING ACTION	METHOD OF VERIFICATION	TIMING OF VERIFICATION	RESPONSIBLE PARTY
clearance from trees, be suitable in all weather conditions, and constructed to support the weight of fire engines.				
4.3.14-1. During the construction of each segment of the project, surrounding facilities shall remain open to the extent feasible. Temporary, alternate entrances and access paths shall be provided in order to prevent inaccessibility to any of the recreational opportunities at the Marina where possible.	The City will ensure that temporary alternate paths are available.	Periodically monitor	During construction of each segment	City of Berkeley
4.3.15-1. The maximum speed limit allowed in parking lots shall be 15 miles per hour. Signs shall be posted at the entrance of lots and within lots indicating speed limits and warning of a congested area.	The City will ensure that speed limit signs are posted in the parking lots	Police casually patrol the area	During project operation	City of Berkeley, City of Berkeley Police Department
4.3.15-2. Final parking lot design plans that include a description of renovated areas, new lot features, parking space and access route layout, and any other safety and design features shall be submitted to the City for approval before build-out.	The City will approve of the final parking lot design	Review and approval of design	Prior to construction	City of Berkeley