



CITY OF BERKELEY

DEPARTMENT OF PARKS RECREATION & WATERFRONT

Plan prepared in association with:
Wolfe Mason Associates, Inc.
Landscape Architects/Environmental Scientists



BERKELEY MARINA MASTER PLAN

JUNE 1, 2003

BERKELEY MARINA MASTER PLAN

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EXECUTIVE SUMMARY

In December 1997, the Berkeley City Council authorized preparation of a Marina Master Plan (the "Plan" or "Marina Plan") to assess the current state and the future sustainability of the Marina. The Marina Plan area is shown on Figure 1.

The Marina Plan, shown on Figure 2, represents a commitment on the part of the citizens and the City to provide a long-term recreation, capital projects and open space enhancement program for the Marina, including commercial and non-profit activity by lessees. It addresses land/water uses, open space and recreation areas, circulation and access, infrastructure, and environmental and wildlife habitat stewardship issues. The Plan identifies permitted land/water uses and guides essential renovations and proposed improvements at the Marina for the next twenty years within a framework of wildlife, natural habitat and environmental protection and financial self-sufficiency.

The Marina Plan provides a framework for future improvement of facilities and for maintaining and enhancing the use of the Marina by the general public. The Plan also provides general direction for change to occur as user needs evolve and businesses adapt to meet those needs. Many of the existing facilities have reached the end of their maximum life expectancy. The Plan provides for replacement of these facilities within the context of protecting and enhancing the open space and biological resources that make the Marina a unique community asset. Specific proposals to expand or replace existing buildings are subject to the City's use permit process.

The purpose of the Marina Master Plan is to:

1. Provide for replacing and remodeling existing commercial and non-profit facilities (see Figure 2.1), including consideration for some limited expansion on a case-by-case basis without any mid-to large-scale development;
2. Enhance open space and recreational opportunities;
3. Enhance and protect wildlife habitat;
4. Address the future viability of the Marina;
5. Identify capital needs, specific improvement projects, and desirable enhancements;
6. Present a financial program that projects revenue and expenses (both operating and capital) over the next twenty years; and
7. Implement the 2002 General Plan.

The Plan is consistent and compatible with the General Plan adopted on April 23, 2002. Since the Marina Plan does not revise the uses permitted in the General Plan, it is primarily an implementation plan consisting of policies that affect open space, recreation, boating, commercial and non-profit facilities, infrastructure, and access.

The City Council, by Resolution No. 53,838-N.S. dated July 7, 1987 (as extended by subsequent resolutions,) established a moratorium on new development at the Marina until such time as a Marina Master Plan was adopted. The Plan responds to the direction taken by the City Council on May 11, 1999 in stating its opposition to new hotel and unrelated large commercial development on the Marina.

The Berkeley Waterfront is adjacent to and east of the Marina. Projects on the Berkeley Waterfront obviously impact the Marina. For purposes of the Marina Plan, the Berkeley Waterfront is defined as all the property west of I-80 within the City limits, excluding the Marina and Cesar Chavez Park. See Figure 1. The Waterfront Commission will review any proposed revisions to the Marina Plan or the Berkeley Waterfront Plan and any development projects in these areas. Any construction, development, rehabilitation or landscaping plan proposed on the Marina must follow the City's permitting process, including review and a recommendation from the Waterfront Commission.

METHODS AND PLANNING PROCESS

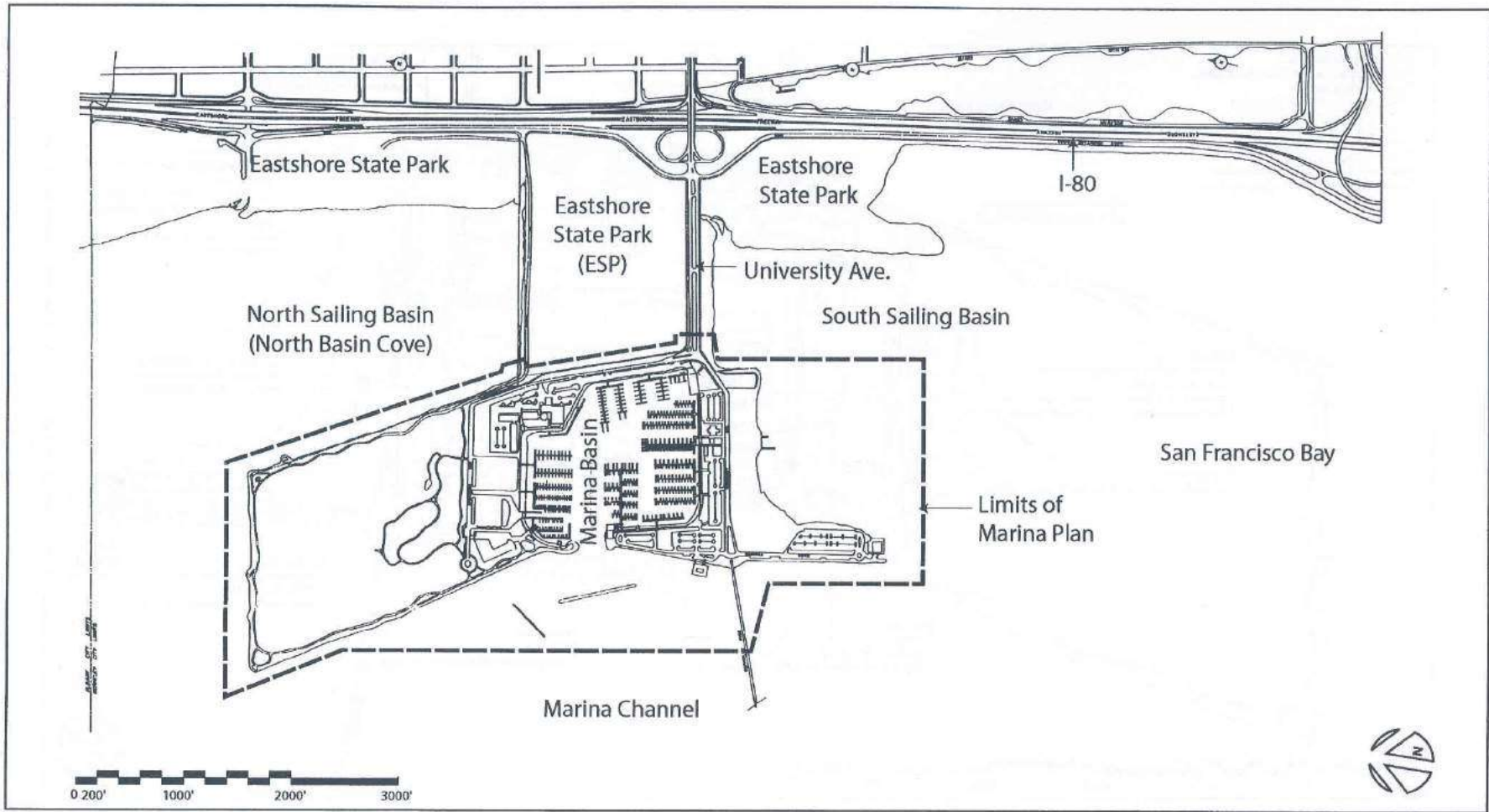
The process began in January 1998. A Marina Plan Subcommittee, consisting of members from the Planning Commission and the Waterfront Commission, was formed to help staff guide the planning process and to provide essential feedback during preparation of the Plan.

After a series of three public workshops and two public meetings before the Waterfront and Planning Commissions, a preliminary design concept was prepared. In November of 1999, the City Council approved the preliminary design concept with the provision that more attention is given to open space and directed staff to move forward with preparing a Marina Plan and completing the environmental review.

A critical issue throughout the planning process has been funding the Marina's ongoing operation, as well as needed future improvements. Therefore, sources of revenue and

increased revenue are closely tied to improvements identified in this Plan.

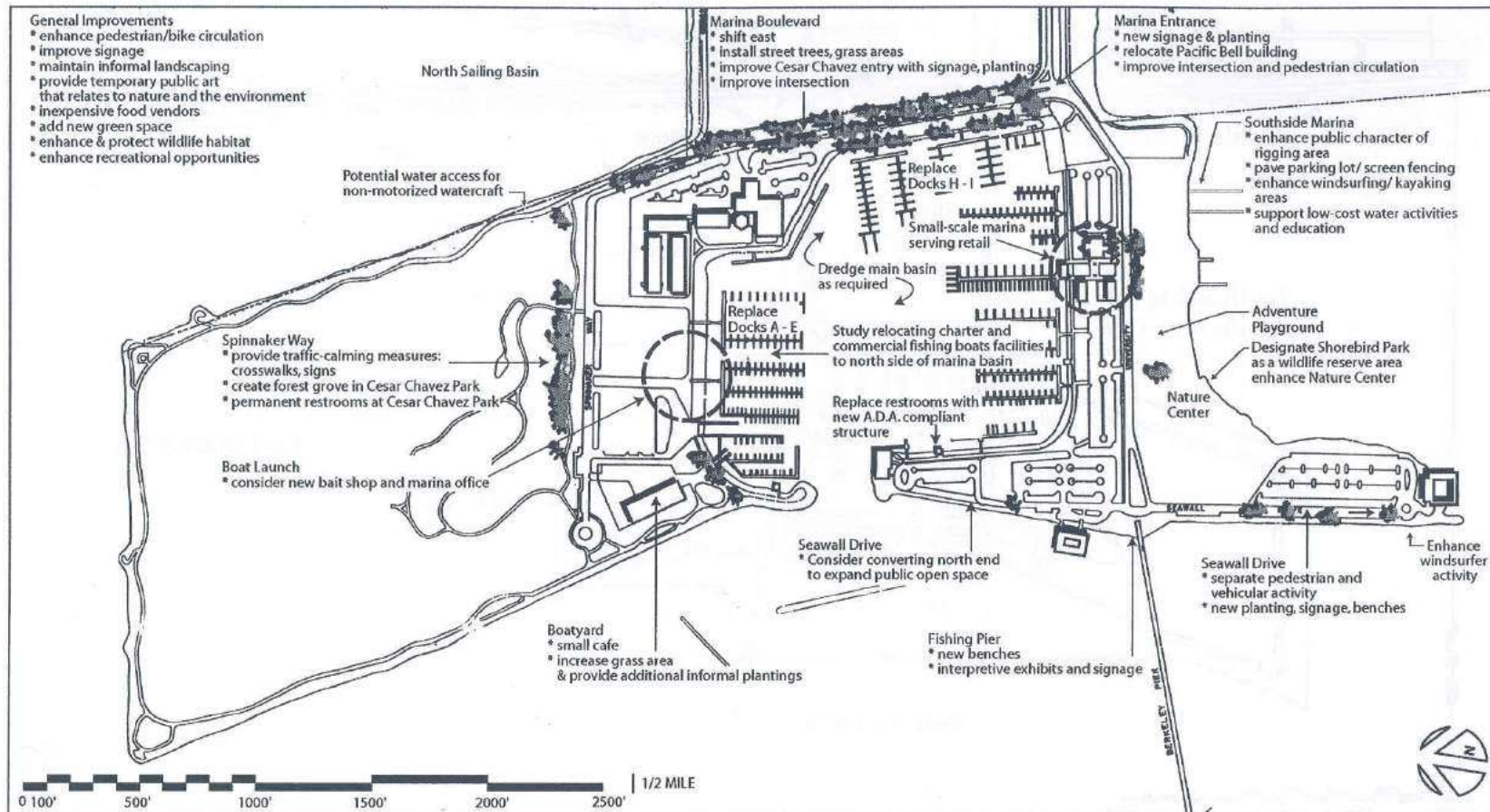
Those involved in preparing the Marina Plan were mindful that a parallel planning process was taking place for the adjacent Eastshore State Park. This Plan envisions a mutually supportive relationship with the State in the ongoing development, preservation and maintenance of the Berkeley Marina and Eastshore State Park. No significant present or future obstacles were identified during the planning process that would prevent this collaboration from becoming a reality.



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Figure 1.0
Plan Area

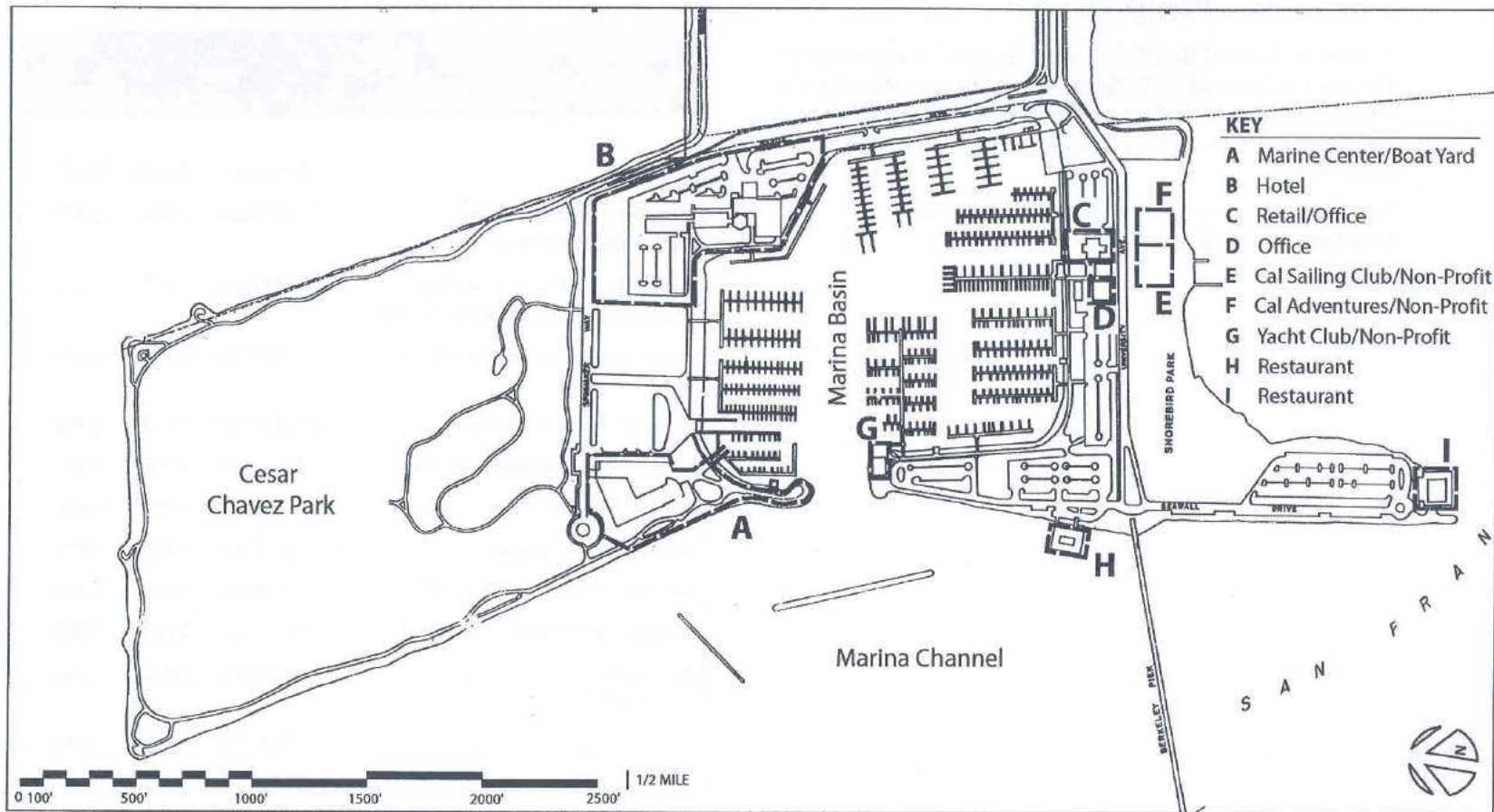


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Figure 2.0
Marina Master Plan



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Figure 2.1
**Existing Commercial/
 Non-Profit Facilities**

SUMMARY OF PROJECTS

Appendix A identifies both essential capital improvement projects that should be initiated within the next five to ten years and other capital improvement projects that could be implemented over the next twenty years provided funds are available.

The following projects are considered essential for maintaining the Marina:

ESSENTIAL PROJECTS			
	Amount	Begin	End
Replace docks & floats, including electrical & water	\$6,150,000	2003	2007
Replace restrooms serving berthers & launch ramp users	\$1,290,000	2003	2004
Improve lighting/security at docks	\$10,000	2003	2003
Dredge Marina channel	\$1,000,000	2012	2012
Landscape/replant key areas	\$500,000	2004	2006
Upgrade pathways to ADA	\$60,000	2008	2008
Dredge main basin	\$1,475,000	2005	2014
Improve dry storage at SSB	\$40,000	2003	2003
Replace ferry pier bulkhead	\$400,000	2010	2010
Install telephone conduit at J-O docks	\$10,000	2008	2008
New pump-out station	\$46,000	2003	2003
Repave J dock parking lot	\$112,000	2003	2003
TOTAL	\$11,093,000		

SUMMARY OF THE FINANCIAL PROGRAM

The Berkeley Marina is expected to be a viable and sustainable community resource. However, the financial projections in Appendix A indicate that Marina revenues over the next twenty years (FY 2001 to FY 2020) will be inadequate to maintain the Marina and to provide modest improvements that will maintain and enhance open space, wildlife habitat, and recreation opportunities. The proposed improvement projects are modest and administrative expenses have been kept to a minimum. The revenue projections are probably optimistic since they assume a steady increase in berthing fees and high occupancy rates over the next twenty years. Expenditures are probably optimistically low, particularly in the second decade of the projections (FY2011-FY2020) when there will likely be unanticipated needs.

As shown on Table 1 and assuming there are grants to fund some of the proposed projects, the Marina Fund will have nearly a \$500,000 deficit beginning in FY2007, rising to a deficit of nearly \$2-million by FY2010. The deficit is projected to remain at about \$2-million over the next ten years (FY2011 – FY2020), but unexpected expenditures or lower revenues would obviously increase it. Some of this shortfall is created by the need to pay debt service on the recently approved \$7 million loan from the State Department of Boating and Waterways to replace docks A through E and H and I, and to replace restrooms that serve berthers on docks D and E, H and I, L and M, and N and O. By FY 2007, when the entire \$7 million loan has been released, the annual cost to service the debt (principal and interest) over the thirty year period of the loan will be \$490,000. There is also a requirement in the loan

agreement with Boating and Waterways to set aside 2 percent of gross revenues each year as a contingency reserve. With the consent of Boating and Waterways, these funds can be used for maintenance projects at the Marina.

The financial projections illustrate the relationship between the limited sources of Marina income and the demands placed on these revenues to meet operational and capital improvement needs. The Marina has been and will likely continue to be a financially self-supporting public operation, without reliance from the City's General Fund. Marina income from berthing fees and leases must meet expenses. As noted above, since the Marina is owned by the State of California with the City acting as the trustee for the State, the State requires that the Marina Fund must include a contingency reserve. Obviously, neither the State nor the City will permit depletion of the Marina Fund financial resources.

The financial program calls attention to fact that the Marina is aging and there is a need to renovate its public facilities. The program also illustrates the need to increase its revenue base by securing grants and raising fees in a reasonable and fair manner. If revenues are not available, capital projects will be deferred in order to provide a balanced budget each year. Meeting the challenge of maintaining the Marina as a viable public amenity and securing adequate revenue for such a maintenance program will require diligent financial planning and constant oversight for the next twenty years.

REVENUE PROJECTIONS OVER THE NEXT 20 YEARS WITH PROPOSED CAPITAL IMPROVEMENT PROJECTS

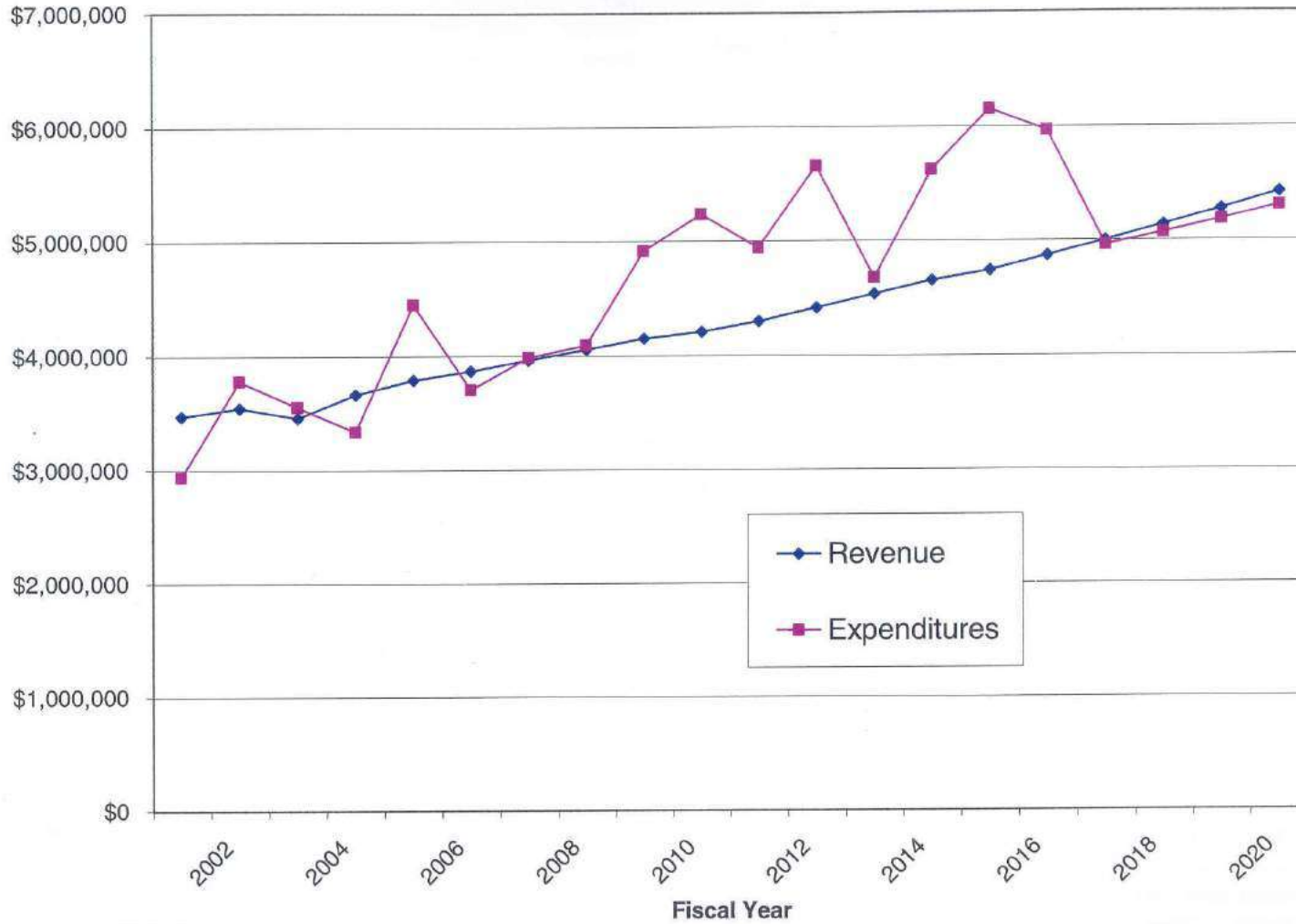


TABLE 1

CHAPTER I – INTRODUCTION

Chapter I - Describes the Berkeley Marina, seven study areas within the Marina, and the relationship of the Marina to adjacent land uses.

Chapter II - Describes the existing conditions at the Marina and the need for a capital improvement plan.

Chapter III - Identifies principles and policies used to guide the selection and implementation of capital improvement projects.

Chapter IV - Presents the Marina Plan, which includes design concepts within the study areas and identifies capital improvement projects and recommendations designed to implement the Plan's guiding principles and policies.

Chapter V - Presents a financial program that illustrates the consequences of implementing the Marina Plan and identifies potential funding problems and revenue sources.

THE BERKELEY MARINA

The Berkeley Marina is a highly valued community resource offering recreational opportunities and open space amenities for both local residents and visitors throughout the Bay Area. It is the largest marina in the Bay Area with 1,000 slips. It is also one of the most beautiful because of its unique location and because of the Berkeley community's continual effort to limit large-scale development, while protecting and conserving its large expanses of park and open space. With the strong and

reliable summer winds through the Golden Gate, the Marina is also a superb location for all forms of sailing and is one of the few large public marinas in the United States where the majority of boats (currently over 80%) are sailboats. The Marina is the focal point of the Berkeley waterfront and provides the primary public access for Berkeley residents to the San Francisco Bay shoreline and to the Bay itself.

The Berkeley Marina is part of San Francisco Bay and therefore, the property is owned by the State of California. The City holds the Marina in trust for the State pursuant to Chapter 347 of the California Statutes of 1913, as amended. This trust is subject to the conditions, restrictions, limitations, rights, powers, and duties with reversionary rights and other rights created or reserved in the Grant of Trust that is administered by the State Lands Commission (SLC). The SLC reserves the right to approve all land uses at the Marina.

In addition to the boating and recreation facilities, a nature center, parks, wildlife areas and open space, the Marina includes a variety of commercial uses including boat charters, a boat chandlery, a bait and tackle shop, sailing schools, restaurants and a hotel. Some of these commercial uses support Marina activities, while others have no direct relation to water-related or park activities. However, all of these uses help create a diverse environment that adds value to the Marina. In addition, such activity is in keeping with the State Lands Commission mandate to provide water-oriented commercial uses. Such development provides a significant revenue stream that helps support Marina programs and expenditures that benefit the general public.

The Berkeley Marina is also home to several non-profit organizations and co-operative clubs. These organizations offer low-cost public access to specialized water-related activities at minimal levels of public subsidy. Through this mechanism, the Marina provides access to the Bay for a much wider demographic range than marinas devoted primarily to servicing privately owned boats.

The Berkeley Marina has two valuable traditions that should be maintained: 1) the berths are affordable, especially in the smaller sizes; and 2) the Marina is an inviting place for a large and diverse group of visitors, in addition to boat owners and their guests. This means that berth rates are generally lower than the average for the Bay area, and Marina revenues are used to support programs, events and amenities that serve the public at large. Examples of these programs include the Nature Center at Shorebird Park, various festivals, and support for non-profit organizations that serve the general public.

RELATIONSHIP TO OTHER PLANNING DOCUMENTS

Since the Marina Plan does not revise the uses permitted in the General Plan, there is no requirement to adopt it as an amendment to the General Plan. The Marina Plan confirms the existing land/water uses and is an implementation program consisting of specific improvement projects and recommendations. The Plan establishes capital project priorities, identifies renovations to existing land-based facilities, and permits minor adjustments to existing land/water uses. The Marina Plan is consistent with and supports the 2002 General Plan and the 1986 Berkeley Waterfront Specific Plan. The specific

policies of the General Plan that show its inter-relationship with the Guiding Principles and Policies of the Marina Master Plan are listed in Appendix C, together with statements relating to compatibility with adopted plans for adjacent areas.

PLANNING AREA

The Marina includes all the property west of Marina Boulevard, as shown on Figure 1. The Marina area is generally described as follows:

Western Boundary — The breakwater and fishing pier;

Northern Boundary — Northern edge of Cesar Chavez Park;

Southern Boundary — Hs. Lordships Restaurant and the land/water area south of University Avenue; and

Eastern Boundary — The land/water area west of and adjacent to the North Sailing Basin and the Eastshore State Park property, and a portion of the water area known as the South Sailing Basin.

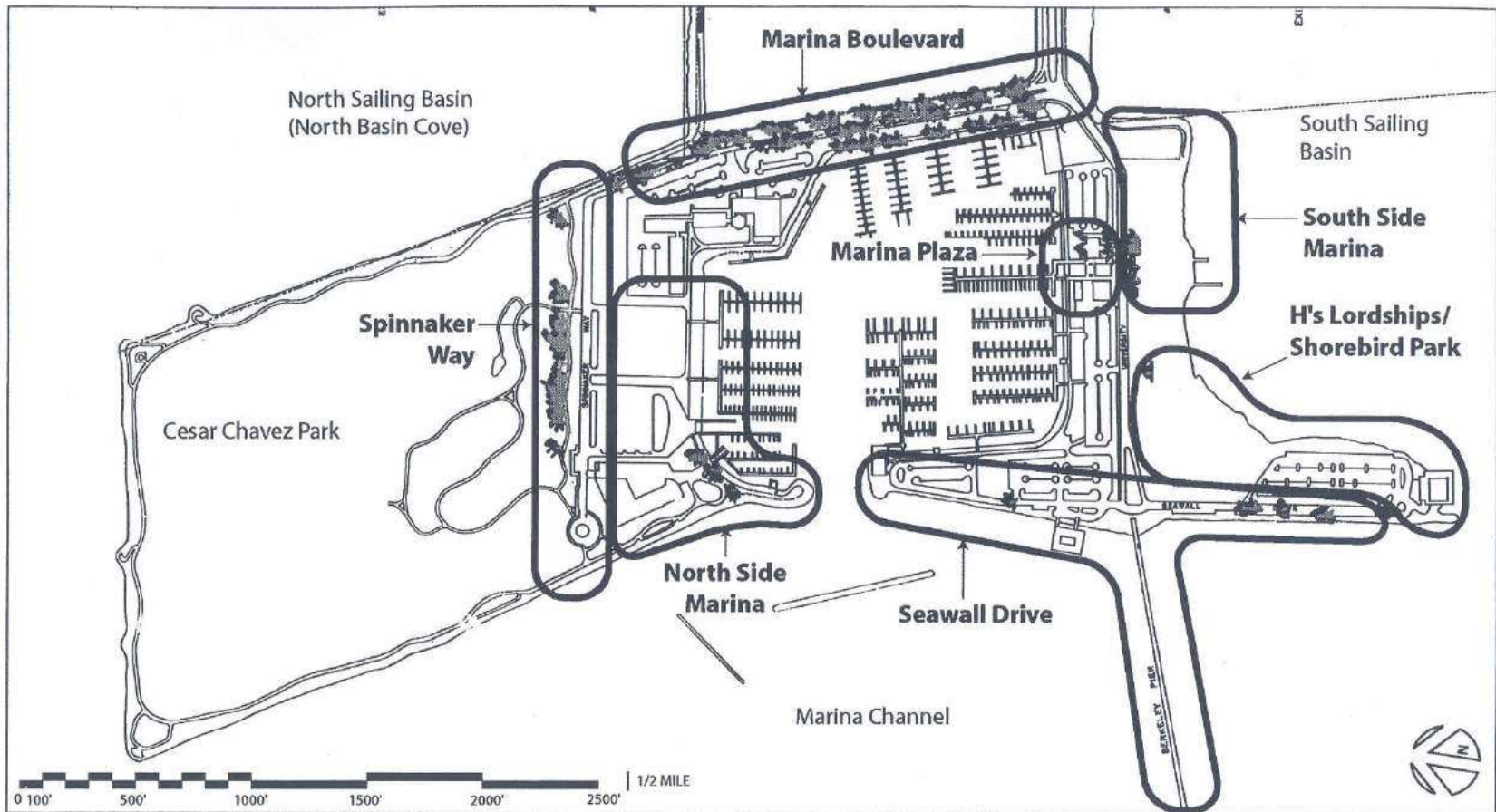
Note: The North Sailing Basin and the easterly portion of the South Sailing Basin are within the 1986 Waterfront Plan area.

STUDY AREAS WITHIN THE MARINA

During community workshops and subsequent subcommittee meetings, seven locations within the Marina (Figure 3) were identified and studied in greater detail to provide concepts for public input and to prioritize needed maintenance and future enhancements.

1. **Northside Marina** – The area encompassing the boatyard, boat launch, A-E Docks and parking lots. This location presents an opportunity to integrate certain services and amenities; especially those that serve ramp-launched fish boats and charter fishing boat passengers. This location is a marine services focal point.
2. **Spinnaker Way** – The area flanking both sides of Spinnaker Way, from the North Sailing Basin to the parking circle, including a portion of Cesar Chavez Park. Spinnaker Way separates the Marina from Cesar Chavez Park. It terminates in a parking circle that provides panoramic views of the Bay and public access to the perimeter trail in Cesar Chavez Park. Pedestrians, bicyclists and motor vehicles all compete for use of the roadway resulting in public safety concerns. The circle requires landscaping and the roadway has drainage problems.
3. **Marina Boulevard** – The area encompassing the roadway, parking lots, Marina Boulevard/University Avenue intersection and the Marina entrance. Marina Boulevard provides access to the north side of the Marina, Docks F, G, H, I and the Radisson Hotel. Presently, Marina Boulevard is not landscaped and parking is located on both sides of the roadway. The parking lots on the east and west side of Marina Boulevard are not paved. Shifting the roadway east to the property line of the Eastshore State Park will concentrate parking on the west side of the roadway, reducing the number of pedestrians crossing Marina Boulevard to access major uses. Parking facilities should be improved and landscaping installed along the new roadway.
4. **Southside Marina** – The area which includes the Cal Sailing Club and Cal Adventures, the adjacent parking lots, green open space areas, and a portion of the South Sailing Basin. This area is the activity center for windsurfing, sailing and kayaking. It is a social gathering point for water use sports. While the functional use of the area cannot be compromised, improvements to the visual appearance of the area should be made. Temporary structures and maintenance sheds need to be screened from public view by trees and vegetation. Public access needs improvement and windsurfer activities should be expanded as appropriate.
5. **Marina Plaza** – The area encompassing the plaza, the Marina Office, a two story office building, the bait shop (the Berkeley Marine Sports Center), and a vacant commercial building. The plaza provides the entry to charter boat fishing, a popular recreational activity. During salmon fishing season, this use generates heavy vehicular traffic. Presently, this area is underutilized and any new commercial activity should be compatible with the character and scale of the Marina.

6. **H's Lordships/Shorebird Park** – The area encompassing the restaurant, parking lot, Shorebird Park, the Nature Center, and Adventure Playground. The restaurant area offers spectacular views of the Bay, the San Francisco Skyline, Golden Gate Bridge, and the Marin Headlands. Shorebird Park is a valuable wildlife zone and the only beachfront area at the Marina; the remaining shoreline areas are all rip-rapped. The area also is the direct access point to the open waters of the Bay.
7. **Seawall Drive** – The area encompassing the parking lot, pedestrian path, rip-rapped shoreline and Fishing Pier. Bay views are available along the entire length of Seawall Drive. Although a pedestrian path is provided along the roadway, it is in poor condition and inadequate in width. Cars parked along the south end of the roadway encroach into the existing pedestrian path, further degrading pedestrian access. This pathway should be improved to provide for safe, joint pedestrian/bicycle use. Seawall Drive provides access to the Yacht Club, Skates, H's Lordships and the Berkeley Pier.



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Figure 3.0
Marina Plan
Study Areas



CHAPTER II - EXISTING CONDITIONS

The Marina lies adjacent to or near large parcels of both public and private property. The Marina must be viewed and planned within the context of these adjacent land uses.

THE BERKELEY WATERFRONT

The Berkeley Waterfront comprises approximately 2.5 miles of shoreline, about 2.2 miles of which is publicly accessible. The majority of this property lies within the new Eastshore State Park. The area also includes a total of about 435 acres of water located in both the North and South Sailing Basins. The Eastshore State Park General Plan refers to the North Sailing Basin as the North Basin Cove. Table 2 presents a breakdown of land use. The new Eastshore State Park identifies the public property on the waterfront as a resource that should be used primarily as open space with some recreational uses. Development on private property may include hotels and retail development.

The Berkeley Waterfront Specific Plan (1986) limits commercial development, enhances the protection of wildlife habitat, encourages the preservation of public open space, and enhances recreational opportunities. In addition to the Berkeley Waterfront Specific Plan, Measure Q, a citizen-sponsored initiative adopted in 1986 regulates land use activity on private property located on the waterfront.

About fifty acres of property on the waterfront are privately owned and governed by the Berkeley Waterfront Specific Plan and Measure Q. Permitted uses are limited to those identified in the Berkeley Waterfront Specific Plan. The General Plan land use designation for these fifty acres is Waterfront/Marina and the zoning classification is SP District, which requires adoption of a Specific Plan.

In 1999, approximately 120 acres of dry land and 103 acres of submerged land (totaling 223 acres) were acquired by the State to develop Eastshore State Park. State lands are exempt from local land use controls and are not governed by either the Berkeley Waterfront Specific Plan or Measure Q.

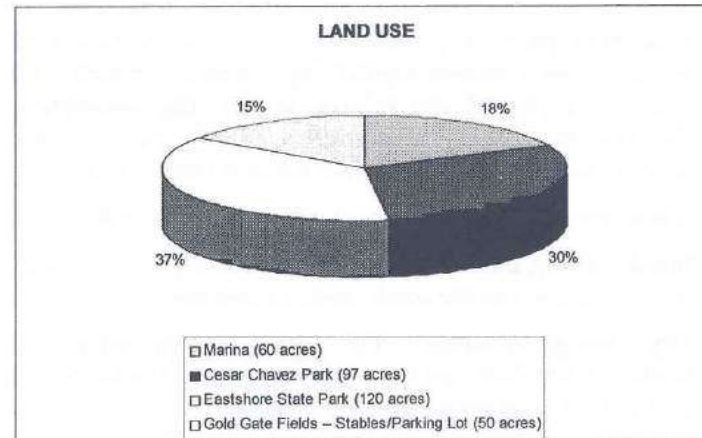


Table 2: Land/Water Use at the Berkeley Waterfront

THE MARINA

The Marina is owned by the State of California and held in trust for the State by the City of Berkeley. The Marina Plan area includes about 255 acres, including 110 acres of water. The General Plan land use designation is Waterfront/Marina and the zoning classification is Unclassified District.

The Marina Basin contains about 1,000 wet berths. With the exception of the new Docks F & G, the docks are 30 – 35 years old and many require replacement. An infrastructure assessment of boating facilities and infrastructure was prepared to determine the condition of facilities. The need to replace the docks and upgrade or replace boating facilities and other infrastructure is great and represents a significant cost to the City. Because of the substantial public expenditures that will be necessary to replace these facilities, capital improvement projects will need to be phased and prioritized. The Implementation Program in Chapter II identifies capital improvement projects that will be phased over the next twenty years.

Other boating facilities supporting water use include:

South Sailing Basin - Three floating docks provide public access to the water for small sailboats and sailboards.

Dry Storage Facilities - Two locations: adjacent to the South Sailing Basin and the parking lot for Docks A - E, with a total capacity for about 100 boats.

Restrooms/Showers - One restroom is located at each dock, for a total of six. These restrooms are for the exclusive use of the berthers. There are two other restrooms open for the general public, one at the Marina office and the other at the Nature Center. The restrooms

are not in compliance with ADA and require replacement or upgrading.

Boat Launch - One public launch (fee based) is located on the Marina's north side, consists of a newly constructed concrete ramp. Adjacent parking accommodates vehicles with boat trailers.

Boat Hoists - Two hoists located on the south side of the Marina, adjacent to the South Sailing Basin.

Uses at the Marina include open space, wildlife habitat, public parking lots, public/institutional and commercial facilities. Commercial land use activities occur on nine leaseholder properties. Table 3 presents a land/water use breakdown.

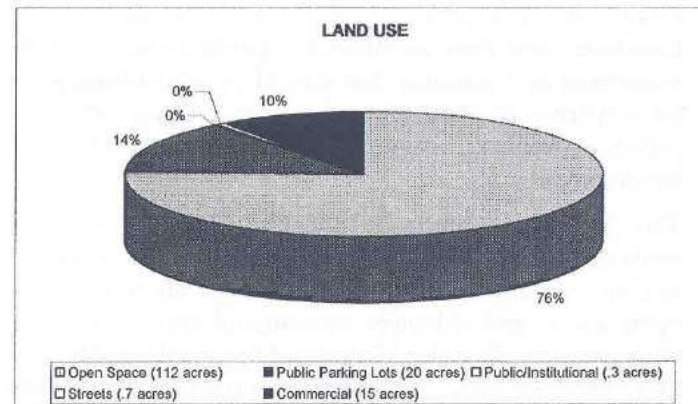


Table 3: Land/Water Use at the Berkeley Marina

A brief discussion of each category follows.

Open Space – Includes Shorebird, Cesar Chavez and Horseshoe Parks. Also includes green space areas (lawns/landscaping).

Public Parking – 12 parking lots and on-street parking at the Marina provide for a total of about 2,200 parking spaces.

Public/Institutional/Infrastructure – Comprises public buildings, streets, docks, and other facilities including the Marina Office, the Corporation Yard, the Nature Center, Adventure Playground, and eight restrooms, of which two are for the general public and six are for berthers. The South Sailing Basin and Marina Channel are silting and need to be dredged. F & G docks were recently replaced and now comply with ADA standards. The Marina's other aging docks are becoming increasingly unsafe and dilapidated as a result of long-term deterioration of wood support and planking.

Most of the Marina's concrete docks were built in the late 1960's and 1970's. In many cases, dock sections are dilapidated and need repair. There are numerous dock sections that should be replaced before they fall into complete disrepair.

There are a number of rotting pilings within the Marina Basin that should be removed for safety reasons. A new foghorn sensor should be installed to enhance safety to boaters during times of poor visibility due to fog.

Commercial/Non-Profit – There are nine tenants at the Marina leasing property from the City. In 2002, they include: the Berkeley Marine Center a boat repair and chandlery business; the Radisson Hotel with 375 rooms; the Berkeley Marine Sports Center, a bait shop and coordinating office for charter fishing boats; the Berkeley

Company, an office building leased to the Nautilus Institute; Skates Restaurant; the Berkeley Yacht Club; H's Lordships Restaurant; and the Cal Sailing Club and Cal Adventures, both of which provide water sports for their members and to the general public. A building adjacent to the City's Marina Office is vacant and was formerly used as a restaurant. See Figure 2.1 for the location of these facilities.

Water/Recreational – Includes the Marina Basin with 40 acres and a portion of the South Sailing Basin (70 acres).

Cesar Chavez Park – Cesar Chavez Park contains about 97 acres and was developed atop a reclaimed municipal landfill. In 1976, the City designated the Park to be used for unstructured public recreation. The Park contains open grassy meadows, a native plant garden, a 17-acre off-leash dog area and a seven-acre natural protected area. There is a main paved pathway that encircles the entire park along with internal trails that provide access to the park interior. Recreational activities include jogging, bicycling, dog walking and kite flying. There are also barbecue grills, picnic tables and benches throughout the Park.

Other – There is also limited residential activity at the Marina. While not considered the same as residential land use, there are thirteen floating homes and approximately 100 permits for approved "cruising live-aboards".

TRAFFIC AND CIRCULATION

Roadways

Primary access to the Berkeley Marina is provided from University Avenue and Gilman and Ashby Streets via West Frontage Road. Interstate 80 (I-80) provides regional access from three interchanges: Gilman Street; University Avenue; and Ashby Avenue. Although all three interchanges provide direct access for traffic approaching from the north and exiting to the south, only Gilman Street provides direct access for vehicles approaching from the south and exiting to the north. Vehicles traveling from the south which exit at Ashby or University must reverse direction by looping through local streets to gain access to the Marina.

University Avenue is a major four lane east-west arterial that provides direct access to the Berkeley Marina. The posted speed limit is 35 miles per hour (m.p.h.) from the freeway interchange to the entrance of the Marina, and 25 m.p.h. within the Marina. There are no sidewalks on the segment of University Avenue between the freeway/West Frontage Road Interchange and the Marina entrance, although there is an unimproved bicycle path on the north side of the roadway. A sidewalk is located on the north side of the University Avenue segment between the Marina entrance and its terminus at the Berkeley Pier.

The Ashby Avenue Interchange does not provide direct access to the waterfront for vehicles traveling from the south. These travelers must exit at Ashby, and then use local streets to circle around and reverse direction on Ashby. Following westbound Ashby over I-80 to its connection with West Frontage Road provides access to the waterfront. The intersection of Ashby and West

Frontage Road is controlled by stop signs on all approaches.

West Frontage Road is a north-south roadway that runs parallel to I-80. There is one lane in each direction. West Frontage Road often functions as an alternate roadway for commuters trying to avoid congestion on I-80. It also provides access to the Marina through connections to the Gilman, Ashby and Powell interchanges. West Frontage Road runs directly along the waterfront. The Bay Trail is now being completed on the west side of West Frontage Road from University Avenue to Ashby Avenue.

Marina Boulevard, Seawall Drive and Spinnaker Way provide access throughout the Berkeley Marina. These streets, which connect to University Avenue, form the roadway network in the Marina and provide access to all areas. Table 4 shows street and trail widths.

Public Transit Service

The Marina is served by AC Transit line 51M, which enters the Marina via University Avenue and runs along Marina Boulevard to the Radisson Hotel. At this point, the service turns around and continues south on Marina Boulevard to University, then turns right onto University and continues to the Berkeley Pier. There are bus stops located at the Berkeley Pier, the Marina Administration Building, in front of the Ferry Pier, and next to the Radisson entrance.

Parking

The Marina has twelve public parking areas and on-street parking that supplies about 2,200 spaces for the Berkeley Marina. The northern portion of the Marina has five parking lots and allows street parking along Spinnaker Way. Table 5 presents a breakdown of parking facilities throughout the Marina. The remaining seven parking lots are along the Marina’s south side; and there is parking along Seawall Drive. 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 typically at full capacity on weekends include the circle at the end of Spinnaker Drive, parking along Spinnaker Drive and the Radisson Hotel.

STREETS		WIDTH
University Avenue ROW		
West Frontage Road to Marina Blvd.		140 feet
Marina Boulevard to Seawall Drive		60 feet
Virginia Street ROW		60 Feet
Marina Boulevard ROW		100 Feet
Spinnaker Way ROW		40 Feet
Seawall Drive ROW		25 Feet
BIKE LANES/TRAILS		
University Avenue Bike Lane		8 Feet
Marina Boulevard Bike Lane		8 Feet
Seawall Drive Trail		7 Feet
Cesar Chavez Park Trails		10-25 Feet
Interior Trails		8-10 Feet

Table 4: Berkeley Marina Street and Trails Widths

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		

Table 5: Parking Lot Capacities and Locations

Pedestrian Paths

A network of pedestrian paths and sidewalks provides access throughout the Marina. At Cesar Chavez Park, a paved path runs along the perimeter and unpaved interior paths traverse the park. These paths are in good condition and do not require immediate maintenance.

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 this pathway along Seawall Drive is narrow and in poor condition. Widening and continuing maintenance will be required for safety and to accommodate increased usage. The portion along the South Sailing Basin is 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 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.

Bicycle Paths

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 in general the Marina lacks proper parking and locker facilities for bicyclists.

The 1999 Berkeley Bicycle Plan identifies improved bicycle paths in the Marina including: a Path (Class 1 – multiuse; non-motorized only) along Seawall Drive; a Bike Lane (striped lane for bicycles only) along University Avenue; and an upgraded bike route (targeted improvements) along Spinnaker Way.

Plans are now being prepared to extend the Bay Trail from the eastern foot of the new Pedestrian Bridge along the south side of University Avenue and continuing into the Marina adjacent to the South Sailing Basin.

NATURAL RESOURCES

Air and Climate

The Berkeley Marina is located within the San Francisco Bay Air Basin. The Bay Area climate within the Basin is characterized by mild, rainy weather from November through March (with an average of 18 inches of annual precipitation in Berkeley), and warm, dry weather from April to October. The Berkeley Marina often experiences coastal fog in the morning and evening hours during the summer months. Cool surface winds in the project area are customarily from the west and northwest. They typically range from 8 to 15 miles per hour and up to 25 miles per hour in the summer. Winter storm winds usually come from the south.

Hydrology

The Marina and its adjacent lands (including the North Basin Strip, Meadow, the Berkeley Beach, and Brickyard Cove, that are owned by the State) are composed primarily of landfill property consisting of municipal garbage and spoils from the construction of I-80. Before this area was filled, the northeastern half of the North Basin Strip was tidal marsh drained by tidal channels and sloughs. The remainder of the North Basin Strip and all of the Meadow and Brickyard were submerged.

The area is relatively level. The interior portions of the area are generally lower in elevation than the perimeter. This results in storm runoff flowing to the interior where ponding can occur. The standing water either evaporates or penetrates into the ground.

Four major storm drain outfalls at the waterfront discharge into the Bay. These outfalls include a 60-inch diameter reinforced concrete pipe at Gilman Street, an eight-foot by

seven-foot outfall at Virginia Street (Schoolhouse Creek), an 8.5-foot by nine-foot outfall at University Avenue (Strawberry Creek), and an eight-foot by seven-foot outfall at Potter Street (Potter Creek). The storm drains are underground and culverted to the Bay. There is an 18-inch storm drain that runs along West Frontage Road in the North Basin Strip. There are also five 24-inch diameter culverts that connect Aquatic Park east of I-80 to the South Sailing Basin. These culverts allow continual flows between Aquatic Park and the Bay, with flow to the Bay during times of low tide. The Aquatic Park connectors are located in the central Berkeley Beach area between Brickyard Cove and Potter Street. Two 18-inch diameter pipes are located at the south end of Aquatic Park. These pipes are opened and discharge water to the Bay only when the Aquatic Park Lake level exceeds 5.5 feet above mean water level (Berkeley Waterfront Plan and EIR, 1986).

The Marina's storm drain system operates mainly by surface drainage. Storm drains follow the perimeter of the main basin and empty directly into it. A few of the parking lots have low spots where the landfill has settled. The Public Works Streets and Sidewalks Division has placed grates to prevent water from collecting and standing in these spots. The drain then carries the water to the main or south basins.

Water Quality

Water quality in the Bay has been degraded over time by pollutants from urban runoff, sewage, sediment, industrial discharges and other sources. Significant progress has been made in controlling water pollution from "point" sources like wastewater plants and industry. However, "non-point" sources have been more difficult to contain since they include a wide range of activities and are dispersed throughout the community. The City's storm drainage system has improved over time to meet the needs of the City as well as to respond to environmental concerns.

According to the 1993 *City of Berkeley Conditions, Trends and Issues Report*, 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 are conveyed through storm drain systems, and reduced fresh water flows from the Delta continue to degrade water quality in the Bay.

Currently, there is no water quality-monitoring program for the Marina. 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.

GEOLOGY AND LANDFILL

Geology

As described above, the Marina is built on landfill. Over the years, settlement has occurred and will continue 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.

Bedrock underlies the waterfront site at depths of 100 to 200 feet. This bedrock is overlain with sediments that have eroded and washed down from the Berkeley Hills. This alluvial material is known as the Temescal Formation and is overlain with finer silt, sand and clay that have been added more recently. This younger Bay mud is from 3 to 40 feet thick underneath the Marina and is the foundation for the artificial fill that was placed during the past 60 years. The greater depths of Bay mud appear to lie in topographic troughs representing ancient drainage channels to the Bay. These buried channels are located in the vicinity of Gilman Street and in the north and northwest portions of the Meadow.

The area is generally level in elevation with numerous small depressions, mounds and berms. Elevations on the site do not vary more than about 20 feet with the exception of a few hills in Cesar Chavez Park. The site lies approximately 16 miles east of the San Andreas Fault, and about 2.5 miles west of the Hayward Fault. The largest earthquake likely to occur on the San Andreas Fault is estimated at a magnitude of 8.3 on the Richter Scale. On the Hayward Fault, an earthquake with a magnitude of 7.5 is likely. Such earthquakes would cause significant ground shaking at the site. Secondary hazards from

seismic activity include liquefaction, slope instability and surface rupture. No known faults underlie the site (City of Berkeley, 1986).

Landfills

The area includes various landfills that have been sealed and graded to permit development or other subsequent uses. The fill that comprises the waterfront sites are of two general types: 1) partly incinerated refuse consisting of brick, glass, metal, and organic material underlies the Meadow, North Basin Strip and Cesar Chavez Park; and 2) rubble consisting of a mixture of brick, concrete and clay soil underlies the Brickyard. The fill varies in thickness across the waterfront area. The fills in the Meadow and North Basin Strip were placed between about 1930 and 1962. In the Meadow, the refuse fill varies in thickness from approximately three to eight feet overlain by three to eleven feet of clay cover soils containing some gravel and brick fragments. Bay mud underlies the refuse fill and varies in thickness from approximately 3 to 40 feet.

The fill area now known as Cesar Chavez Park was previously used for disposal of municipal soil refuse and debris. Closure of this landfill site was done in phases to more easily achieve the contoured design grades through a process of spreading a large quantity of rubble, excavated and other waste soil resources over the area. Final cover for the landfill was placed according to minimum specifications of the Regional Water Quality Control Board of California (RWQCB). The City's Public Works Dept. is responsible for monitoring and maintaining the clay cap and the system controlling the methane gas that results from the decomposing garbage.

BIOLOGICAL RESOURCES

Habitat Areas

The Berkeley Marina and the waterfront area contain aquatic and terrestrial habitat types that support both shore and land birds. Aquatic habitats include rip-rapped shoreline, sandy beach, mudflats and deep water areas. The rip-rapped shoreline is found throughout the area, and sandy beaches are located at Shorebird Park, the Brickyard and Berkeley Beach along the south shoreline. Mudflats are exposed at low tide in the Brickyard and other small strips along the shoreline. Deep water areas can be found in the North and South Sailing Basins. Terrestrial habitats include ruderal (weedy) areas, seasonal ponds, landscaped areas and existing developed areas. Ruderal areas are found in the North Basin, Meadow, Brickyard and throughout Cesar Chavez Park. Landscaped areas with many trees are found throughout the Marina. These areas provide important avian habitat without restricting human access and activities.

There are two habitat areas that have restricted human access. One is a small part of the Shorebird Park area with bushy thickets where human access is, by necessity, restricted to the paths. The other is the area in Cesar Chavez Park designated "Protected Natural Area" where human access is normally prohibited. No additional habitat areas are planned within the Marina that would restrict human use.

In recent years, many of the Monterey Cypress and some Monterey Pine trees in the Marina have become diseased and died. Causes of the disease are attributed to age, climate and canker spores spread by wind and moisture. Specific to the Monterey Pine is the Pine Pitch Canker,

which slowly kills the tree. Although diseased trees are located throughout the Marina, the majority is located along Spinnaker Way. To prevent the appearance of "clear-cutting" and to maintain bird habitat, the Marina is undertaking a phased tree removal program. As the trees are removed and ground up the material will be used as ground cover (at the site to avoid spreading the disease) and new trees will be planted. In areas where there is no human hazard a dead tree may be left standing to improve habitat for birds.

Wildlife

Wildlife at the waterfront consists primarily of birds, small mammals and fish and shellfish. The ruderal vegetation in the upland fill areas (primarily the Meadows) are inhabited by a variety of animals associated with urban habitat. The trees and landscaped areas of the Marina and Cesar Chavez Park provide habitats for many bird species and small mammals. The Bay shoreline and mudflats provide valuable resting and feeding habitat for a large number of water birds and marine species.

The landscaping, marine environment and abundance of trees all help to attract a large bird population to the Marina. The trees provide cover and nesting grounds during migratory periods. Water bird populations are generally highest in early winter, the peak migratory period. These levels remain high through winter and early spring. There is a gradual decline through spring and early summer but the arrival of migrant shorebirds in late summer increases the population.

Small Mammals

The weedy upland fill areas, rip-rapped shoreline areas and Cesar Chavez Park provide protective habitats for a variety of small mammals including rabbits, ground squirrels, skunks, gophers, mice and voles. The rip-rap and beach areas form the ecotone between the upland and aquatic habitats. Although rip-rap has low habitat value as compared to the natural shoreline, small mammals and marine life have encroached into these areas. Upland vegetation grows along the top of the rip-rap and provides the habitat needed by these animals.

Marine Species

The Bay mudflats extend offshore from the project site. These mudflats are intertidal and exposed to the daily tide cycle. They are rich in invertebrate life including algae that replenishes oxygen in the water and serves as the first link in the food chain. Other species found in the mudflats include polychaete worm, clams, oysters and mussels. Water quality problems have curtailed commercial shellfish harvesting, but uncontrolled recreational harvesting still occurs.

Threatened and Endangered Species

Two species, the California brown pelican and California least tern, are listed as threatened by the state and federal register. These species feed in off-shore areas along the waterfront and may occasionally roost in nearby areas. *The 1986 Berkeley Waterfront Plan* and EIR indicate that these species are not known to feed or nest at the Marina or other waterfront areas and the area is not considered a critical habitat for these birds. However, in more recent years, the California Brown Pelican has been sited feeding in the Marina.

Species of Special Concern

Further, White-tail Kites, Northern Harriers, and Burrowing Owls have been seen foraging and nesting on the north side of Cesar Chavez Park or in the Berkeley Meadow.

The Resource Inventory prepared for the Eastshore State Park General Plan identified various species that have used the Marina and adjacent waterfront lands for roosting, nesting, rafting, and feeding.

AMENITIES

Views

The Marina is highly visible from many points around Berkeley. Views from the Berkeley Hills, to the east, show the waterfront and Marina with the backdrop of the Golden Gate Bridge, the San Francisco skyline, the Marin headlands and Mt. Tamalpais. Continuous shoreline views are available along West Frontage Road, and the Bay and Marina are visible from the southbound lanes of I-80. View corridors exist along University Avenue, Gilman Street and Cedar Street. The view corridor along University Avenue is considered the most significant as the avenue is the principal means of access to the waterfront.

Views from the Marina are panoramic and include vistas of the Emeryville and San Francisco skylines, the Bay and Golden Gate bridges, Alcatraz and Angel Island, the Marin Headlands, Sausalito, Mt. Tamalpais, and the Albany and Richmond shorelines.

From vantage points within the Marina there are views of sailing and windsurfing activity, particularly from the South Sailing Basin, and views to the east of Berkeley and the hills.

Landscaping

The Marina maintains a park-like setting with its extensive planting of trees and shrubs. Trees, berms and ground cover are effectively utilized to screen parking lots from views. Trees line Spinnaker Way, University Avenue and portions of Marina Boulevard. Tree plantings define the perimeters of Shorebird and Horseshoe parks, providing shelter from the wind for park users. Tree clusters at University near Marina Boulevard establish a green portal

for pedestrians, bicyclists and motorists to pass through as they continue west along University Avenue. Landscaping and plantings are restricted at Cesar Chavez Park because of the Regional Water Quality Control Board's concern that tree roots have the potential to compromise the landfill's clay cap. It will be necessary to consult with the Regional Water Quality Control Board before planting in any areas of Cesar Chavez Park.

The remaining waterfront areas are not landscaped at this time, and consist of grassy areas and scrub. The new Eastshore State Park will likely include some landscaped areas.

Signage

A distinctive Marina sign program was designed and implemented in 1977. At that time about 20 directional signs were placed around the Marina to signify the locations of buildings, services, parks, berths and exits. Many of these signs are not clearly visible to the passing motorist, resulting in confusion and "missed turns".

PUBLIC ART, CULTURAL AND HISTORICAL RESOURCES

Public Art

There are three pieces of public art located at the Marina and Cesar Chavez Park. In the Marina, there are two pieces including a metal sculpture in front of the Marina Administration Building and a stone sculpture located at the end of University Avenue across from the fishing pier. A blue metallic sculpture is located in the northwest corner of Cesar Chavez Park.

Cultural Resources

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 Indians 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.

Most of the prehistoric archaeological sites were located on flat to gently sloping terrain above the Bay shoreline, usually close to freshwater sources. 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 listed in the National Register of Historic Places or in the California Inventory of Historic Places for the Berkeley waterfront. 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 (Berkeley Waterfront Specific Plan and EIR, 1986).

Historical Resources

The Berkeley Municipal Pier, originally 3.5 miles long, was built in 1929 to provide vehicular and passenger ferry service to San Francisco. It was used for this purpose until 1939 after 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 public walkway. A fishing license is not required. The unused 2.5 miles portion of the pier is decaying and parts are still visible.

CHAPTER III – GUIDING PRINCIPLES AND POLICIES

The eight guiding principles listed below frame the vision and action plan for the future of the Marina. They incorporate the Marina's mission, define the unique environment, and capture the spirit of dedication to conservation and recreation. They were developed by the Marina Subcommittee composed of representatives from the Waterfront and Planning Commissions and with the help of community workshop participants.

PRINCIPLES

1. Protect, restore, enhance, and expand wildlife habitat, open space, natural areas, and biological resources.

- Plant native trees, shrubs, and ground cover to enhance the natural park-like environment of the Marina.
- Increase native plantings to improve wildlife habitat.
- Balance habitat protection and conservation with anticipated increases in demand for public access, recreation and commercial services.
- Protect scenic views and view corridors.
- Expand interpretive programs on history, natural resources and the environment.

2. The health, safety and security of Marina users and employees shall be a prime objective.

- City will provide for appropriate public safety and security on Marina lands in compliance with city, state and federal laws and regulations.
- City will protect the health of Marina users and staff by adhering to relevant regulations.

3. Maintain and upgrade existing infrastructure.

- Existing boating facilities and infrastructure (e.g., docks, pilings, pump out stations, restrooms and shower facilities) shall be repaired, improved, enhanced to meet Marina and user needs and comply with the legal requirements of local, regional, state and federal codes and regulations.
- Marina infrastructure (e.g., roads, parking, lighting, trails, utilities) shall be repaired, upgraded and enhanced to meet Marina and user needs and comply with the legal requirements of local, regional, state and federal codes and regulations.

4. Provide for appropriate recreational and commercial/non-profit development that both encourages use and protects and enhances the natural resources of the Marina lands.

- Recreational and commercial development will be compatible with ecological features within or adjacent to Marina lands.
- Passive recreational activities such as bird watching, blanket picnicking, open space and wildlife appreciation, will be balanced with existing active recreational activities such as biking, skating, hiking, flying kites, hang gliding, skateboarding, sailing, dog-walking, and windsurfing.
- Planned facilities will be designed so that their scale, style and materials will blend with the natural environment.
- Small commercial facilities that support boating and other recreation activities at the Marina shall be encouraged.
- Nonprofit organizations, co-ops, and clubs that provide low-cost public access to water-related recreational activities will continue to be supported as the budget allows.
- Land uses shall complement water uses when possible.
- Commercial uses shall be balanced with the overall open space and recreation focus of the Marina.
- Land use relationships will be improved by integrating land use and infrastructure development.

5. Enhance access and use of the Marina, especially for members of special user groups such as elderly, economically disadvantaged or physically challenged persons.

- Access and circulation shall be improved both to the Marina, and within the Marina, and transit options enhanced.
- Improve the pedestrian and bicycle linkage between Cesar Chavez Park to the planned Eastshore State Park and to the new pedestrian/bicycle bridge spanning the I-80 freeway.

6. Pursue a fiscally responsible and sustainable implementation program for the Marina.

- Vigorously pursue sustainable solutions to capital improvement projects, ongoing operations and maintenance.
- Cooperate with management of the Eastshore State Park on sharing the use of public facilities and infrastructure at Eastshore State Park.

7. The Marina will be a “good neighbor” to adjacent landowners.

- City recognizes that other agencies (e.g., Cities of Albany and Emeryville and the State of California) provide services and facilities that serve the citizens of Berkeley and of the greater East Bay area. Hence in developing the Marina lands, in a spirit of cooperation and in an attempt to avoid duplication, the City will coordinate with other agencies.

8. The City will commit to achieving the objectives and polices of the Plan.

- A bi-annual report will be prepared for the Waterfront Commission on the progress for implementation of the Plan. The report and any recommendations from the Commission, with public input, will be sent to the City Council.

POLICIES

For each of the principles stated above, specific policies have been developed that further guide future capital improvement projects.

Principle 1: Protect, restore, enhance, and expand wildlife habitat, open space, natural areas and biological resources.

A. Protect, increase and enhance natural habitat and open space.

- *Maintain existing informal landscaping and provide new plantings.* The Marina's landscaping conveys an informal, almost park-like setting comprised of extensive plantings of trees, shrubs, and open lawn areas. Future landscaping should continue this informal theme emphasizing native plants wherever possible. As needed, new plantings should concentrate on replacing dead or diseased plants and "filling out" areas of sparse plantings. Where new areas of planting are proposed their potential for view blockage and unwelcome shading should be considered. Plantings should be compatible in scale and color with the surrounding environment. Additional plantings should be installed to screen boatyard activities and parking lots and to enhance pedestrian pathways.
- *Encourage use of native plants to enhance wildlife habitat value.* The Marina provides habitat for a variety of water birds and raptorial birds, especially during the migratory period (mid-winter to mid-spring). While the Marina and surrounding waterfront is urbanized, opportunities exist to

introduce habitat to support wildlife. To the maximum extent possible, native plants should be incorporated into proposed landscape plans to provide shelter and food sources for birds. Publications that contain a Recommended Native Plants List appropriate for the waterfront area should be consulted during the planning process. A program to identify, control and remove non-native invasive plants that negatively impact natural habitat or have no habitat value should be developed and implemented. There are many areas that are bare of trees. Forestation is one of the best ways to beautify and to enhance wildlife habitat without restricting human activities. Where practical, trees should be close enough to each other to provide continuous canopy. Dead trees are important to wildlife and some fraction should be left standing when not considered a safety hazard. An extensive and continuing tree planting and maintenance program should be established.

- *Designate Shorebird Park as a Wildlife Reserve.* Extend the current boundaries of Shorebird Park and develop and implement a habitat enhancement plan for this wildlife habitat area.
- *Balance habitat protection and conservation with anticipated increase in demand for public access, recreation and commercial services.* Incorporate buffers—transitional zones of native vegetation that abut natural areas and wildlife habitat and help to minimize the impact of human activities—into the design of projects that can negatively impact these ecologically sensitive areas. Wherever possible, restrict the presence of lighting fixtures, power lines, utility poles and trees that can provide

suitable conditions for avian predators (such as raptors and ravens) in or near areas where these predators can threaten the survival of ground nesting and other native birds. Allow for appropriate public access to areas of high biological value during sensitive times of the year (e.g., nesting or breeding seasons and migration periods). Provide signage explaining to the public the reasons for limitations.

- *Implement measures to improve water quality.* In carrying out maintenance, improvement, remodeling, and new building projects, minimize water pollution to the maximum extent practicable, particularly by (a) minimizing runoff to Bay waters by incorporating swales, permeable surfaces, and similar measures, (b) minimizing use of materials that can release heavy metals or other pollutants into the water, and (c) eliminating pipes that drain discharges from land or buildings into the Bay.
- *Accommodate a community garden.* Currently, there is a garden located on the north side of the Marina that is tended by members of the Marina's residential community and enjoyed by residents and visitors alike. In response to interest voiced by the residential community, accommodation for community gardens should be considered. Staff should work with the residents to identify an appropriate location for such a garden.
- *Increase green space.* As capital projects are implemented throughout the Marina, creation of new or expanded green space areas should be encouraged. Opportunity areas to create new green space should be identified and incorporated into a

comprehensive landscape plan for the Marina. Use of native plants should be considered when new green space areas are created.

- *Review Current Environmental Education Programs and Consider Potential Program Enhancement.* Expand interpretation and education programs by establishing more volunteer opportunities.

B. Improve the Marina's landscaping, signage, and pedestrian amenities.

- *Install buffers, trees and benches to improve the Marina's park aspect.*
- *Design planting areas as biofiltration systems.* Landscape areas can capture runoff and provide irrigation for trees and shrubs while removing pollutants before they drain into the Bay.
- *Enhance the Marina Entrance by installing new signage and plantings to create a sense of "arrival" at the Marina.* The entrance to the Marina should be enhanced with landscaping to make it more appealing and signify arrival, while emphasizing views of the Bay, harbor, and boats. The PacBell building at the corner of Marina and University should be screened. Decorative pilings located at the entrance require removal for safety reasons. Incorporation of public art to replace the piles should be considered. Views into the Marina at its entry should be kept open.
- *Improve Cesar Chavez Park entry.* Provide new signage and plantings to establish distinct entrances to the Park.

- *Incorporate overlooks at the north end of Seawall Drive into a new pathway design for the area.*
- *Improve signage.* Improve visibility of key signs at the Marina entrance, parking lot entrances, building locations, and other critical areas. To accommodate non-English speaking users, consider multilingual signage and printed informational materials in order to gain cooperation and foster a better understanding of the Marina and its policies, especially in matters relating to health, safety, and education. Consider new information kiosks at key public gathering points such as the Fishing Pier, the Marina Office plaza area, and end of Spinnaker Way. Additionally, interpretive signs that depict historical events and the ecology of the Marina are recommended. Suggested locations for the interpretive signs include the Fishing Pier and Shorebird Park.
- *Provide Temporary Public Art That Relates to Nature and the Environment.* The introduction of public art at the Marina presents an opportunity to enhance the visitor experience. Public art should be installed on a temporary basis to allow for a variety of art works to be exhibited at the Marina.
- *Enhance public character of rigging area at the South Sailing Basin.* New plantings should be installed to screen unsightly temporary structures and maintenance areas. Pedestrian paths should be improved and adequately signed to allow public access to the shoreline while minimizing conflicts with windsurfing and sailing activities.
- *Enhance the Existing Public Plaza.* The existing large concrete platform used in the past as a ferry

landing presents an opportunity to create a lively public open space. Additional plantings, benches and improved lighting facilities should be installed. Use of the plaza for public art exhibits, musical performances, etc. should be encouraged.

Principle 2: The health, safety and security of Marina users and employees shall be a prime objective.

- *Provide for appropriate public safety and security on Marina lands in coordination with state and regional agencies.* To discourage and combat illegal activities at the Marina, including illegal drug use and trafficking, auto theft, theft and destruction of public and private property, gang-related crime and illegal overnight camping, appropriate law enforcement should be present at the Marina. The City should sponsor and foster a volunteer neighborhood crime watch and reporting program.
- *Introduce traffic calming measures.* Provide crosswalks on Spinnaker Way at the launch ramp exit and the A-E parking lot. Install signs indicating bicyclists also use the roadway to alert motorists to check their speed.
- *Marina Security & Lighting* – A comprehensive lighting plan for major public facilities, parking lots and frequently used pedestrian trails should be prepared to improve public safety and security at night. Complete installation of the computerized card key system at the docks.

Principle 3: Maintain and upgrade infrastructure.

- *Upgrade the Ferry Pier to comply with seismic regulations.* The bulkhead wall and pilings at the ferry pier have deteriorated substantially which has compromised its structural integrity. Moreover, as currently designed, the ferry pier does not meet seismic regulations.
- *Restore Fishing Pier.* Work with the Landmarks Preservation Commission to restore the pier's historical attributes. Consider providing interpretive signs that describe the history of the pier and Bay ecology. Benches should be provided on the pier at convenient distances to enhance public access.
- *Improve Dry Storage Facilities.* The South Sailing Basin's dry storage area has deteriorated. It is unpaved and filled with potholes that fill with water during rain. The area is difficult to maintain as currently designed.
- *Utilities (Water, Sewage, Electricity and Phone Lines).* The Marina's water supply and sewage systems are antiquated. Their original design anticipated many fewer users than now exist. An alternate water supply line is required to supplement the current single line in case of earthquake or other disaster. The sewage system needs new pump out stations and holding tanks in order to manage the volume of sewage produced at the Marina. Additional stations may also be required. Docks A through E need electrical rehabilitation, some of which has taken place. Docks J through O need a new telephone conduit. Electrical lines for A, B, & C docks run from the dock restroom to the docks.

Due to settling of the ground between the two, the cables rupture and stretch. The phone lines for J through O docks run along rocks and are often submerged in water. They should be rerouted above water into a utility box.

- *Improve restroom facilities.* Restrooms should be sited and landscaped to minimize the visual impacts of the structures. Adequate signage should be installed to identify locations. All the Marina's restrooms should eventually be replaced to make them comply with ADA requirements. Like other buildings at the Marina, they are aging and have only received limited refurbishment. A facility should be located near the parking circle at the end of Spinnaker Way.
- *Improve parking lots.* Some of the parking lots are damaged or unpaved. Many lots have extensive ponding and suffer from erosion during the rainy season. These parking lots should be redesigned. The following policies for the redesign of existing parking lots and the design of future lots at the Marina are based on the Center for Urban Forest Research guidelines. (Center for Urban Forest Research, 2002. [Where are the Cool Parking Lots?](#) USDA Forest Service, Davis, CA):
 - Develop a Recommended Tree and Shrub List that will increase environmental and natural habitat benefits. The List should have adequate species diversity, include trees with large crown diameter for increased shade and omit trees not suitable for parking lots (e.g., poplars, birch).

- Allow for only the minimal width of aisles between rows of spaces.
 - Increase use of compact spaces, angled spaces, and one-way aisles and lots to reduce paved surface.
 - Use pervious materials for paving (consistent with ADA standards) and vegetated swales to treat storm water runoff and promote filtration.
 - Install landscaping swales around their perimeters to screen cars from public view.
 - Consider incorporating swales and tree wells among interior aisles in the design of lots for improved air and water quality.
- *Delineate parking spaces on Spinnaker Way.* Angled parking spaces should be delineated on Spinnaker Way to maximize the number of spaces possible on the roadway. Consider allowing for some parallel space to accommodate vehicles with trailers.

Principle 4: Provide for appropriate recreational, commercial and nonprofit development that both encourages use and protects or enhances the natural resources of the Marina lands.

A. Promote the use of the Marina for boating and appropriate recreational activities and encourage appropriate commercial and non-profit uses that support marine and recreation functions.

- *Encourage Inexpensive Food Vendors.* The availability of inexpensive food at the Marina should be encouraged. Use of pushcarts and other mobile

structures should be allowed, but should not be located in areas that will obstruct public access or views.

- *Support Low Cost Water Activities and Education.* The City should continue to support affordable programs such as Cal Sailing Club, Cal Adventures and the Nautilus Institute that provide a variety of low-cost water-related activities as well as educational programs for youth and the community.
- *Review Current Environmental Education Facilities.* Study the need for expanded environmental education facilities and consider providing a new Environmental Education Center.

B. Conduct a feasibility study on integrating selected marine services at the Northside Marina area to reinforce this location as a marine services focal point.

Presently, boating-related activities and services are scattered throughout the Marina. A study, accompanied by an appropriate environmental review, of the potential impacts should be conducted to assess the feasibility of consolidating some marine services and activities, especially those related to fishing, at the north side of the marina. Such a consolidation of services could enhance efficiencies for boaters using the launching ramp. The study should consider the following recommendations as well as exploring other alternatives.

- *Consider Relocating Fuel Storage Tanks for Fuel Dock.* The site of the existing fuel storage tanks could be reclaimed for public use by replacing the pavement with grass and new landscaping. The existing

pedestrian pathway along the shoreline could be extended to provide access.

- *Consider Relocating the Marina Administration Building.* Relocating the Marina office would improve Harbor Master oversight of the Marina, allowing greater visibility of incoming and outgoing boats. It would also allow the Marina Supervisor to monitor the activity at the launch ramp.
- *Consider Relocating Bait Shop.* Relocating the bait shop to a site near the boat launch would more efficiently serve day use and provide higher visibility to the Marina and Cesar Chavez Park.
- *Consider Relocating Charter and Commercial Fishing Boats and Facilities.* Designate a dock for the exclusive use of charter and commercial fishing boats and facilities. This would consolidate these activities at one location for greater efficiency in providing services. Berths on K Dock are not adequate for new fishing boats. Its current location forces charter vessels, which are large and sometimes noisy, to pass by several other docks before reaching their berths, sometimes disturbing other berthers. Locating the charter boats near the launch ramp also consolidates fishing activity in one area, allowing fisherman to congregate and socialize. Also, establishing a "fishing fleet" activity area at the Marina could be a point of interest for visitors.
- *Encourage the development of a café at the Berkeley Marine Center.* The current lease allows for a café at this location. Presently, there are no opportunities on the north side of the Marina for visitors to

purchase refreshments. As appropriate, the City should provide incentives to attract a food service provider to start a café. The café should be designed to take advantage of the Bay view, and if feasible, include an outdoor seating area. An elevated café with parking underneath would provide views while preserving existing parking needs. Popular and successful existing commercial food services should continue to be accommodated.

C. Preserve the areas devoted to marine operations and recreational activities and expand to new areas where feasible and without negatively impacting natural resources.

- *Enhance Sailing, Windsurfing and Kayaking Facilities.* At the South Sailing Basin, provide permanent restroom facilities with showers accessible to the public. Consider relocating the existing boat storage facility adjacent to the South Sailing Basin to an area closer to other boat facilities so as to allow for the expansion of windsurfing and kayaking activity. Lawns could be planted and benches and picnic tables installed. Consider providing a site for a community windsurfer group that would be accessible to the public. Any plans for increased recreational activity in this area must be carefully developed in consideration of adjacent wildlife areas.
- *Enhance Windsurfer Activities at the point immediately to the west of H's Lordships Restaurant.* Consider constructing large terraced stairs to improve windsurfer access (Figures 9, 10). Consider low maintenance material for the adjacent staging areas and screening these areas with landscaping. A new pedestrian path is needed that links with the

existing pathway on the north side of the parking lot. New signage and benches should be installed.

- *Collaborate with management of the Eastshore State Park on a study to determine any appropriate new water access point(s) to the North Basin Cove.* The study should include appropriate environmental review of key issues and consideration of a new water access point for non-motorized watercraft on the east shore of Cesar Chavez Park near the entry at the southeast corner. As the North Basin Cove is under the jurisdiction of the State and as the Eastshore State Park Plan also provides for water access to the North Basin Cove pending further study of potential environmental impact, the City will work with the State in planning any appropriate water access into the North Basin Cove and will adopt the guidelines and restrictions that the State may develop for the North Basin Cove. If the City proceeds in the planning of an access point before the State, the City will adopt the guidelines called for in the Eastshore State Park Plan.

Principle 5: Enhance access and use of the Marina, especially for members of special user groups such as elderly, economically disadvantaged or physically challenged persons.

- *Provide new and renovate pedestrian pathways and bicycle trails to increase public access at the Marina.* As needed, pedestrian paths should be resurfaced and widened to provide access for all members of the community. New paths and upgraded paths will comply with ADA requirements. Bicycle paths and improvements consistent with the Berkeley Bicycle

Plan should be installed along Seawall Drive, University Avenue, Marina Boulevard and Spinnaker Way. Bike racks should be installed at key locations along the bicycle paths.

- *Improve shoreline access by upgrading existing pedestrian pathways along the shoreline and, where feasible, providing new pathways at the shoreline edge.* Provide a pedestrian path along the entire length of Seawall Drive. The pedestrian pathway should be grade separated from parked cars and the roadway. Plantings and berms should be used to screen cars from the pedestrian path. New signage and benches should be installed along the path.
- *Public Events.* A study should be conducted making recommendations on how to improve parking and traffic congestion during public events at the Marina.
- *Shift Marina Boulevard to the East at the Eastshore State Park boundary.* Consider conducting a study together with an appropriate environmental review to realign and shift Marina Boulevard east to the Eastshore State Park property line. (See figures 5, 6.) Berms with vegetation should be installed to separate cars from pedestrians and to create a park-like setting. The City will work together with the State Parks to determine if a multi-use pedestrian/bicycle trail should be built as part of this project. Realignment will require utilities to be relocated and improved. This will provide badly needed additional parking for berthiers at F, G, H, and I docks and may improve circulation.
- *Improve Marina Boulevard/University Avenue intersection.* As part of the Marina Boulevard

realignment, the intersection should be redesigned to improve safety and clarity for pedestrians and bicyclists.

- *Encourage Leaseholder Remodeling/New Construction that provides for public access.* The construction of new buildings or expansion of existing facilities should encourage inviting public access to and along the shoreline. Longer-term leases, especially for non-profits now operating with only three-year leases, should be implemented.

Principle 6: Pursue a fiscally responsible and sustainable implementation program for the Marina.

- *Maintain the Plan's prioritized capital improvement program for the construction of boating facilities, roadways, restroom facilities, and other infrastructure facilities necessary to continue Marina operations.* Identify funding options to pay for the improvements.
- *Capital improvement projects should be incorporated into a phasing schedule that ranks projects based on their priority as well as their cost.* Funding options should be identified for each project.
- *Review and monitor lease properties.* As appropriate, remodel buildings and update leases. Lessees in violation of their leases will not be tolerated and their facilities will not be considered for expansion while in non-conformance.
- *The Waterfront Commission and staff shall collaborate on developing strategies for the Marina's financial sustainability over the next twenty years.*

Principle 7. The Marina will be a "good neighbor" to adjacent landowners.

- *In a spirit of cooperation and in an attempt to avoid duplication in developing public facilities in the Marina, the City will coordinate with other agencies.* City recognizes that other agencies (e.g., Cities of Albany and Emeryville and the State of California) provide services and facilities that serve the citizens of Berkeley and of the greater East Bay area.

Principle 8. The City will commit to achieving the principles and polices of the Plan.

- *Staff shall report to the Waterfront Commission quarterly on the progress of implementing the policies of this Master Plan and the proposed capital improvement projects.* The Waterfront Commission will evaluate the staff report and if necessary make recommendations for changes.
- *A biannual report will be prepared for the Waterfront Commission on the progress for implementation of the Plan.* The report and any recommendations from the Commission, with public input, will be sent to the City Council.

