

## Chapter 1

### RECREATIONAL USES OF THE BERKELEY WATERFRONT

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#### Introduction

In view of the proposed development at the Berkeley waterfront, many professionals and laymen alike have pondered the changes which could occur in the area. The possibilities of new revenue sources, expanded job opportunities, decreased open space acreage, and much more have been analyzed in depth. Little has been said, however, about the effect development could have on recreation at the Berkeley waterfront. Indeed, the encroachment of future development into recreational areas is inevitable. All large open spaces (prime areas for development) are presently being used for recreation.

Due to the vulnerability of recreational areas, I decided it was an opportune time to launch a study on Berkeley waterfront recreation. The goals of the study are (1) to obtain data on personal (non-club) use, (2) to determine kinds of recreational activities preferred for the newly-developed park areas (such as North Waterfront Park), (3) to investigate the recreationist's view toward development, and (4) to help the Berkeley Department of Public Works in better serving recreationists.

No such study focusing on the uses of the Berkeley waterfront has been done, although a general study on the entire East Bay shoreline (emphasizing park expansion) was made recently (Edelstone, 1982). As in the Edelstone study, this project uses a survey for data collection. To obtain more quantitative data, this study also contains an observational analysis.

#### The Study Area

The study area (Figure 1) is the same for both the survey and observational analysis and consists of the following regions: (1) the Marina/Pier area, (2) Aquatic Park, (3) the Beach area, and (4) the Meadow. A brief description of each area and its relevance to the study follows.

The Marina/Pier area consists of four sub-regions, Shorebird Park, North Waterfront Park, Horseshoe Park, and the Berkeley Pier (Figure 1). Shorebird Park consists of 6.17 acres of grass, trees, and a small beach (Roberts, 1984, personal communication). In the grassy areas there are picnic tables, a jungle gym, and restrooms. The view from the picnic tables is of the South Sailing Basin, a popular spot for windsurfers and sailboat enthusiasts. A large amount of data was collected in Shorebird Park in both the survey and observational parts of the study. Horseshoe Park, only 3.39 acres (Roberts,

1984, personal communication), served a much less significant role in data collection due to its limited use. Horseshoe Park has a grass clearing where people walk their dogs and has a nice view of the South Sailing Basin. North Waterfront Park is the site of the old Berkeley dump. Construction began in 1979 on the 90-acre park (Kunkel, 1980). Presently, 7.5 acres are completed (Roberts, 1984, personal communication). The view from North Waterfront Park encompasses San Francisco, the Golden Gate, Mt. Tamalpais, and the Berkeley Hills. The park has some flat grassy areas, some landscaped areas, a drinking fountain, picnic tables, benches, barbeque pits, and a gravel trail. Many of the survey and observational data were collected in North Waterfront Park and the Berkeley Pier. The 3,000 foot concrete slab Pier is a very popular spot on the waterfront (Kunkel, 1980). Equipped with a lookout platform, benches, and night lighting, the Pier attracts people from all over the Bay Area and beyond. Fishermen catch shark, rays, flounder, bullhead, striped bass, surfperch and jacksmelt.

The second recreational region in the study is Aquatic Park (Figure 1). Aquatic Park is a lagoon connected to the Bay by seven tide gates under Highway I-80 (Kunkel, 1980). It consists of 32.8 acres of land and 67.7 acres of water (Roberts, 1985, personal communication). Aquatic Park has paved trails, a Frisbee golf course, a jungle gym, a Dyna course (for jogging and calisthenics), picnic areas, barbeque pits, waterskiing, windsurfing, and non-power boating. The park is situated on the flyway of migratory waterfowl and thus is the setting for birdwatching (Kunkel, 1980). Although not the most popular park at the waterfront (due to freeway noise and high crime rate), Aquatic Park was still an important source of observational data for the study.

The third region, the Beach area, is located along the strip of land between the Bay and Highway I-80 from University Avenue approximately 1.1 miles south to the Ashby spit (Figure 1). Fishing is popular at the Berkeley Beach and all along the shoulder of Frontage Road (Figure 1). Very few surveys were collected in this region. The Beach area, however, did contribute some data to the observational

<u>DATES</u>	<u>TIME OF DAY</u>	<u># OF SURVEYS COLLECTED</u>
Dec. 21 (Fri.)	afternoon	3
Dec. 23 (Sun.)	afternoon	4
Dec. 24 (Mon.)	morning	3
Dec. 30 (Sun.)	afternoon	2
Jan. 21 (Mon.)	afternoon	3
Jan. 24 (Thurs.)	afternoon	4
Jan. 26 (Sat.)	morning	4
Jan. 27 (Sun.)	afternoon	6
Feb. 3 (Sun.)	morning	6
Feb. 25 (Mon.)	afternoon	4
Mar. 2 (Sat.)	morning	7
	TOTAL	46

Table 1. Data collection information.

part of the study.

Finally, there is the Meadow (Figure 1). This 72.2 acre area (Roberts, 1985, personal communication) badly needs some landscaping work. It is covered mostly by grasses and scrub. There is a large amount of litter in the area. The Meadow is used mainly for dog walking and some bike riding. It did not contribute significantly to either the survey or the observational part of the study.

Only those regions in which individual recreational activities take place are included in the study area. Therefore, places such as Adventure Playground (Figure 1) are omitted because these areas are mainly centers for structured/club-related activities. And even though clubs such as California Adventures use areas within the study area, their users are not part of this study. Also omitted is a region called the Brickyard. This area is heavily wooded, scrubby, unsafe, and very difficult to observe from the road. It was left out because so few use it and because it takes so long to traverse.

#### Methods

In the study I sought to obtain data on the waterfront users, types of personal recreational use, use patterns, and opinions of the users concerning waterfront recreation. Therefore, I devised a survey (see Appendix) for recreational users to fill out, and I also made notes on the various recreational activities at the Berkeley waterfront.

For the observational analysis, I drove from region to region and counted the numbers of people involved in each type of activity seen. For the survey, I initially attempted to interview every third person in each study region in order to make respondent selection statistically random (Monsky, 1984, personal communication). Research was conducted on mornings and afternoons during the weekdays and weekends. All data were obtained on relatively clear days with temperatures characteristic of the season. Data were collected on eleven occasions starting on December 21 and ending on March 2 (Table 1).

One third of the way through the study, I realized my surveying techniques were creating difficulties. It was impossible to make the study statistically random because there were too few people in some regions and too many in others. Sometimes I collected little or no information, and other times I was overwhelmed by trying to collect it all. Furthermore, many times when people were asked, they refused to fill out surveys. Also, a lot of potential candidates had to be disregarded or avoided because they (1) were in no state to answer surveys (drinking beer, with girlfriend/boyfriend, sitting in cars), (2) seemed to be unsavory characters, or (3) they were inaccessible (doing serious workouts, sailing, windsurfing).

After January 21, I chose people who were available and willing to fill out surveys. I did not discriminate in any way except to disregard people whose main language was not English. During the actual surveying I tried to remain neutral concerning the waterfront. Sometimes I clarified statements and offered sample answers, yet I doubt this caused responses to be biased. I was not able to survey

neone from each type of recreational activity due to the number and types of activities observed.

Results

Data collection yielded forty-six surveys and 1,478 observations of recreational activities. Data from the surveys are found in Tables 2-5, and data from the observations are in Table 6.

Of the persons surveyed, 54% are male and 46% are female, and most are between the ages of 36 and 50 (34%), or 25 and 35 (24%) (Table 2). The occupations of the respondents are varied, with a significant percentage of teachers, students, and retired. Sixty-six percent of those surveyed live in West Berkeley, North Berkeley, and Oakland.

C A T E G O R I E S							
Sex		Residence		Occupation		Occupation (continued)	
Male	54	N Berkeley	25	Clerk	6	Health Field	5
Female	46	S Berkeley	4	Designer	2	Teacher	16
		E Berkeley	0	Lawyer	2	Student	19
		W Berkeley	16	Sales Rep.	2	Retired	12
<u>Age</u>		Oakland	25	Architect	2	Housewife	2
10-17 yrs.	7	Richmond	0	Welder	2	Businessman	5
18-24 yrs.	16	Emeryville	4	Technician	2	Biologist	2
25-35 yrs.	24	El Cerrito	2	Brakeman	2	Drug Dealer	2
36-50 yrs.	34	Albany	4	Programmer	2	Social Worker	8
51-65 yrs.	7	Outside E		Psychotherapist	2	Machine Operator	2
over 65	12	Bay	16			Biochemist	2
		Out of State	4				

Table 2. Description of waterfront users, in percent. All numbers rounded to the nearest percent.

Among survey respondents, walking is the most popular activity at the waterfront (Table 3). Other popular activities are dog walking, fishing, sailing, and relaxing.

FIRST PREFERENCE ACTIVITIES	NUMBER OF RESPONSES	SECOND PREFERENCE ACTIVITIES	NUMBER OF RESPONSES
football	1	kite flying	1
walking dog	2	baseball	1
kite flying	1	reading	1
fishing	2	viewing	1
frisbee	1	fishing	1
reading	1	birdwatching	1
relaxing (sitting, sleeping)	2	relaxing	3
sailing	3	picnicing	1
walking	23	bicycling	2
	TOTAL 36	walking	4
		TOTAL 16	

Table 3. Types of use.

Use patterns reveal that weekend afternoons are the most popular times at the waterfront (Table 4A). Length of stay is mostly two hours or less (50%) or two to three hours (42%). The number of people who come three or more times a week steadily increased as the weather warmed (Table 4B). The least favorite times of the year are winter and fall. Many people do not come at all during these seasons.

The majority of people come to the waterfront because of the pretty view (Table 5). People like the view and easy access the most, and trash and lack of safety the least. Many respondents commented that the Marina lacks sufficient restroom facilities at North Waterfront Park and the Berkeley Pier. A high proportion of those surveyed feel that if there were further commercial development, they might no longer come to the waterfront.

<u>TEMPORAL FACTORS</u>	<u>TIMES/TIMESPAN</u>	<u>% OF SURVEYED</u> *
Times of Week	(most used times)	
	Monday-Friday mornings	4
	Monday-Friday afternoons	18
	Saturday mornings	16
	Saturday afternoons	24
	Sunday mornings	14
	Sunday afternoons	24
	(second most used times)	
	Monday-Friday mornings	0
	Monday-Friday afternoons	5
	Saturday mornings	11
	Saturday afternoons	32
Length of Stay		
	2 hours or less	50
	2-3 hours	42
	3-5 hours	5
	over 5 hours	3

Table 4A. Temporal use patterns.  
\* All numbers rounded to the nearest percent.

SEASONS	SEASONAL USE (%)*					
	3 or more times/week	1/week	2/month	1/month	1/season	never
Winter	20	22	11	11	14	22
Spring	40	16	16	13	13	2
Summer	56	17	3	9	9	6
Fall	35	16	11	11	16	11

Table 4B. Seasonal use patterns.  
\* All numbers rounded to the nearest percent.

<u>QUESTIONS</u>	<u>ANSWERS</u>	<u># OF RESPONSES/ANSWERS</u>
1. Why do you come here?	view	12
	scenery	6
	the Bay	7
	quiet	6
	fresh air	5
	peaceful	4
2. What do you like the best here?	view	7
	easy access	6
	pier	4
	quiet	5
	scenery	4
3. What do you like the least here?	trash	8
	lack of safety	2
4. What does this area lack?	bathrooms--	
	N Waterfront Park	7
	portable toilets--	
	mid pier	7
	cheap restaurant	3
	windbreaks--Marina	2
5. What changes would cause you no longer to come here?	more commercial	
	development	20
	traffic congestion	3
	crowds	4
	lack of safety	2
	lack of maintenance	3
	decreased open space	3

Table 5. Personal opinion questions on the waterfront.

According to the observational analysis, waterfront users engage in at least twenty-four recreational activities (Table 6). Among these activities, fishing and walking are the most popular. Use of the waterfront increased from December to January (Table 6). Trends between January and February could not be discerned due to a difference in the data base for each month. This will be explained further in the discussion.

### Discussion

The users of the waterfront are as varied as the recreational uses themselves. In analyzing Table 2, one finds two points of special interest. One is the relatively high percent of teachers, students, and retired persons using the waterfront. The other is the large proportion of users who are from outside the East Bay and California in general. The high percent of students can probably be explained by the close proximity of Berkeley High School and UC Berkeley to the waterfront. The high percent of teachers could be for the same reason (close proximity to schools). The large proportion of users from outside the East Bay can be explained by the extensive regional appeal of the Berkeley waterfront. Kunkel (1980), in her analysis of the waterfront, writes that the pier and the views are mostly

REGIONS		Sit In Car *					a.	b.	c.	d.	e.	View	Bicycle	Frisbee	Birdwatch	Relax †	Fish	Sail	Fly Kites	Roller Skate	Football	Windsurf	Playground	Picnic	Rowboat/Canoe/ Powerboat	Motor Bike
		Read	Walk	Walk Dog	Jog																					
DECEMBER	Aquatic Park	1	12	3	3	47					1	8	3	6				5						4		
	Beach		3		1	7					6	1			8											
	Meadow																									
	N. Waterfront Park	1	34	4	1	12					7	4			8			4		5						
	S. Sailing Basin																3				7					
	Horseshoe Park			2																						
	Shorebird Park		21	1							5	2			2						11					
	Pier ‡	1	54	1							3	4			6	119	11"							1		
TOTALS	3	124	11	5	66					22	22			22	127	14	4	5	5	7	11		5			
JANUARY	Aquatic Park		21	5	6	40	5	2	10	23	5	4	2	1				2				4				
	Beach	1	3	5	2		2		1	3	2	4			18											
	Meadow		2																							
	N. Waterfront Park	4	21			6			7	5		2		3	8							3				
	S. Sailing Basin																				2			1		
	Horseshoe Park		11	2																						
	Shorebird Park		21	3							2				8						8	2				
	Pier		124		1						21	9			105	30							7	12"		
TOTALS		193	15	9	46	7	2	18	26	35	17	2	2	12	131	33		2		2	8	16	13			
FEBRUARY (+Mar.2)	Aquatic Park		8	3	6	6	6		6	4	21	2	2	4	1								1			
	Beach		11							3					3						21"					
	Meadow		1	2	1							3												1		
	N. Waterfront Park		7	3				1	4	2	2	1			5		3									
	S. Sailing Basin																					13				
	Horseshoe Park														2		4									
	Shorebird Park		12		3										4						2	6				
	Pier		90												120	19"										
TOTALS		129	8	10	6	6	1	10	9	23	6	2	10	129	30	7				34	2	6	1	1		

TABLE 6. Activities at the Waterfront and Numbers of People Involved.

\*a. For unknown reason

b. Seemingly waiting for something/someone

c. Reading

†d. Relaxing (sitting, lying down)

e. Viewing

"As seen from pier

‡No data on the pier were collected Dec. 30th

responsible for the attraction.

Regarding activities, walking was shown to be the most popular activity at the waterfront (Table 3). The data supporting this may be invalid, however. A bias may have been incorporated into data collection since many people accessible for surveying happened to be walking at the time.

With respect to personal opinions (Table 5), many survey responses are similar to responses in the Edelstone study (1982). People from both survey groups thought the waterfront had a trash problem and needed more police protection. When asked what waterfront areas lacked, respondents from both groups wanted additional bathroom facilities at the Marina. Also, members from both groups desired a small coffee/snack shop at North Waterfront Park and perhaps one other spot on the waterfront (not specified). When survey groups were asked what changes would reduce recreational usage, many said commercial development. Other answers in common were crowding, decreased open space, lack of maintenance, and lack of safety. Some respondents from the Edelstone study said that any concession stands or coffee shops would also serve to reduce recreational use.

Lastly, it would have been informative to be able to compare monthly use data from December through February. Unfortunately, data for February are incomplete because only three dates of observation are included instead of four as in the other months (Table 1). Usage data from a "typical" day cannot be added to compensate since no such data can be calculated. Daily use of the waterfront varies so much that there is no "typical" day. Thus, with insufficient data from February, it is very difficult to make a definitive judgment of monthly use patterns. To represent monthly use patterns more accurately, the study period would have to be extended several months.

### Recommendations

The findings from this study indicate that the Berkeley waterfront is a popular recreational area both locally and regionally. In order to maintain the popularity and improve the quality of the region, I would like to make the following recommendations.

The City of Berkeley should strive to have as much open space as possible at the waterfront. Most recreationists want open, unstructured areas which they can use as they wish. Next, and more importantly, the City should consider strongly the importance of recreation when making crucial decisions about waterfront development. No decisions should be based primarily on monetary factors. The value of the waterfront as an urban escape as well as a scenic recreational area may not be immediately apparent. However, this is no reason for its worth to be underrated! Berkeley should do whatever it can to withstand the pressure of developers and other financial lobbyists. Perhaps Berkeley officials should call on various grassroots organizations to develop a plan to buy privately-owned waterfront areas. No matter how, the City must do its best to preserve an area which gives Berkeley part of its personality as well as its peace of mind.



Specific changes or additions that would improve waterfront areas include installing the desired restrooms on the pier and at North Waterfront Park. Comfort and convenience are the least a public area can supply. Also, something must be done so that solitary people, especially women, do not feel so vulnerable in areas such as the Brickyard and Aquatic Park. The Berkeley police must start frequenting the area at regular intervals. In addition to the police, a "park ranger" needs to be hired to patrol the area. Another big improvement would be fixing the road which feeds into Bay Street (on the south side of the park). It is in poor shape and makes leaving the park in that direction very difficult. Lastly, laws must be passed to outlaw littering. Signs warning litterers of steep fines should be posted. Even if enforcement could not be strong, at least the signs would serve as an adequate deterrent for many potential litterers. This in itself would be instrumental in helping to preserve the beauty and general appeal of the Berkeley waterfront area.

#### REFERENCES CITED

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Appendix A-Sample Survey

BERKELEY WATERFRONT RECREATIONAL USE--PUBLIC SURVEY

Please CIRCLE or FILL IN the most appropriate response(s).

Part I. Description of Waterfront Users.

- 1) SEX: a) male b) female
- 2) AGE:  
a) 10-17 yrs. b) 18-24 c) 25-35 d) 36-50 e) 51-65 f) over 65
- 3) OCCUPATION: \_\_\_\_\_
- 4) RESIDENCE LOCATION (HOME):  
a) N Berkeley b) S Berkeley c) E Berkeley d) W Berkeley  
e) Oakland f) Richmond g) Alameda h) Emeryville i) \_\_\_\_\_  
(other)

Part II. Types of Use.

- 5) What (recreational) activity are you involved with at the moment?  
(examples--jogging, frisbee, walking) \_\_\_\_\_
- 6) What types of activities do you usually do here?  
PLEASE LIST PREFERENCES by putting #1 near activity done most,  
#2 near activity done the most after #1, etc...  
\_\_\_\_\_  
\_\_\_\_\_

Part III. Use Patterns.

- 7) When do you usually come to the Berkeley Waterfront?  
PLEASE CIRCLE ALL WHICH APPLY AND rank your choices by putting  
#1 next to the most used time slot, #2 next to the second most  
used, etc...  
a) Monday-Friday mornings b) Monday-Friday afternoons  
c) Saturday mornings d) Saturday afternoons  
e) Sunday mornings f) Sunday afternoons

PLEASE CONTINUE ON THE NEXT PAGE.

- 8) How long do you usually stay during each visit? (Choose one.)  
a) 1 hour or less b) 2-3 hours c) 3-5 hours d) over 5 hours
- 9) How often do you visit the Berkeley Waterfront at different  
times of the year? (Please circle one answer per season.)  
WINTER- a) 3 or more times/week b) 1/week c) 2/month d) 1/month  
e) 1/season f) never  
SPRING- a) 3 or more times/week b) 1/week c) 2/month d) 1/month  
e) 1/season f) never  
SUMMER- a) 3 or more times/week b) 1/week c) 2/month d) 1/month  
e) 1/season f) never  
FALL- a) 3 or more times/week b) 1/week c) 2/month d) 1/month  
e) 1/season f) never
- 10) In what part of the Waterfront do you spend most of your time?  
(Please circle only one.)  
a) Marina b) the Pier specifically c) Aquatic Park d) Brickyard  
e) the Beach area f) other \_\_\_\_\_

Part IV. Personal Opinions

- 11) Why specifically do you come here? (Please try to list a few reasons.)  
\_\_\_\_\_  
\_\_\_\_\_
- 12) What do you like the best and the least about the Berk. Waterfront?  
best-\_\_\_\_\_  
least-\_\_\_\_\_
- 13) What do you think the Berkeley Waterfront lacks?  
\_\_\_\_\_  
\_\_\_\_\_
- 14) What kinds of changes in the Waterfront would cause you to no  
longer enjoy it and use it?  
\_\_\_\_\_  
\_\_\_\_\_

THANK YOU VERY MUCH FOR YOUR HELP!!!