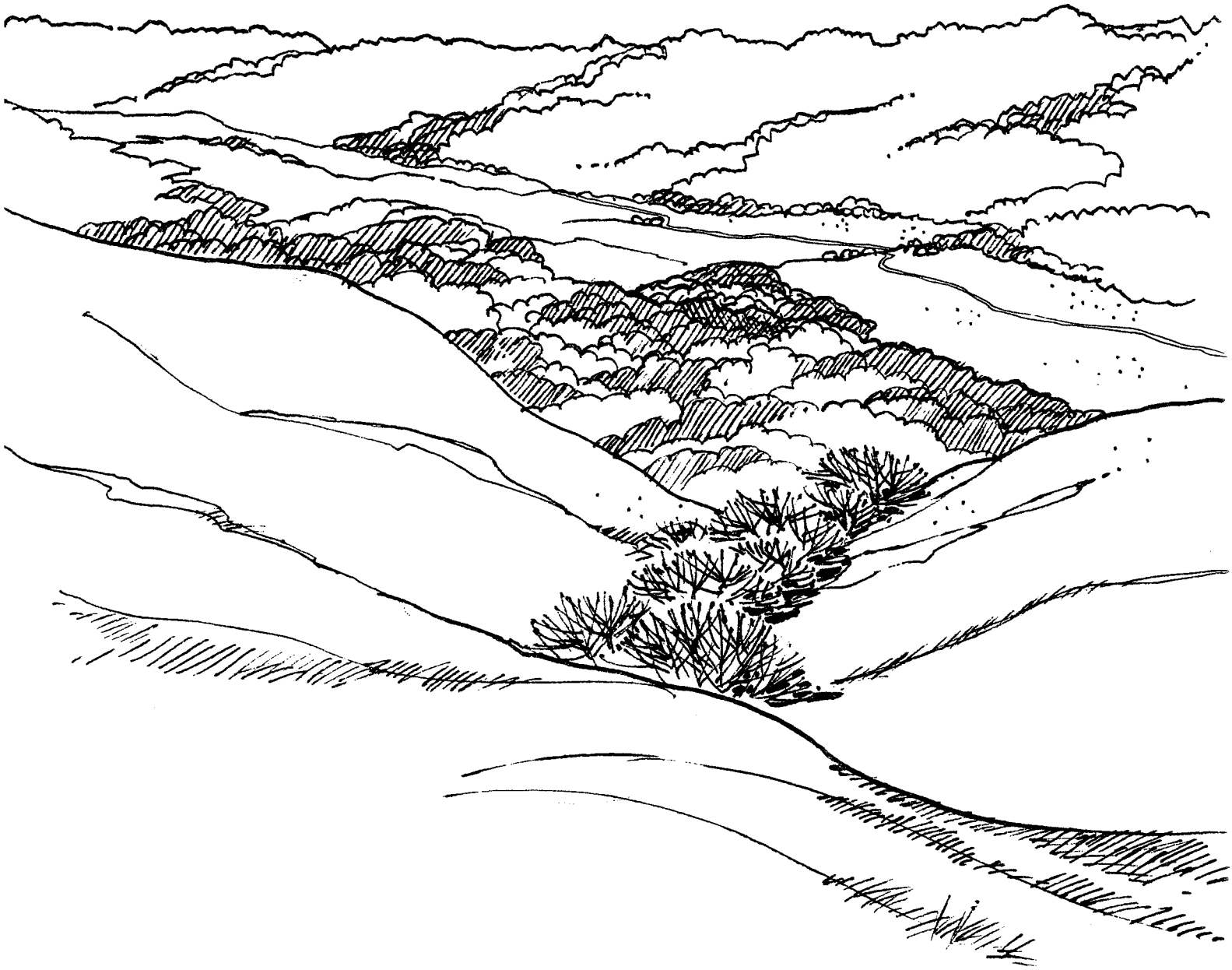

Wildcat Canyon Regional Park

Final Land Use - Development Plan
Environmental Impact Report

INCLUDED: AMENDMENT TO THE WILDCAT CANYON LUDP/EIR TO INCORPORATE THE ALVARADO PARK REHABILITATION PROGRAM - April 1991

WILDCAT CANYON REGIONAL PARK

FINAL LAND USE-DEVELOPMENT PLAN AND

ENVIRONMENTAL IMPACT REPORT

September 10, 1985

Draft Circulated:	**August 7, 1985**
Resolution No.	**1985-9-281**
EIR Certified:	**September 26, 1985**

Prepared by:

Dillingham Associates

For:

East Bay Regional Park District
2950 Peralta Oaks Court
Oakland, CA 94605

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PREFACE

PREFACE

In January, 1984, the East Bay Regional Park District Board of Directors approved an agreement with consultants to prepare a Land Use Development Plan/EIR for Wildcat Canyon Regional Park. Shortly thereafter a PLANNING TASK FORCE was organized to help guide and advise the District in this effort. Numerous morning, afternoon and late evening meetings, field trips and telephone conversations later, this document was published.

The East Bay Regional Park District would like to thank profusely the following individuals for their time, effort, interest, expertise and for "hanging in there" through this long planning process:

Reed Dillingham	Dillingham Assoc., Consultant
Charli Danielsen	California Native Plant Society
Derek Schuman	Grizzley Peak Flyfishers
Lucile Arnon	Orinda Horsemen Assoc.
Es Anderson	Wildcat Canyon Horsemen Assoc.
Alan La Pointe	Friends of Wildcat Canyon
Jean Siri	City of El Cerrito, Councilmember
Peggy O'Drain	Richmond Parks & Rec. Comm., Chair
Joseph Salvato	Richmond Park & Rec. Dept., Director
Lindsey Strout	Richmond Park & Rec. Dept., Dep. Director
Ira Bletz/Margaret Kelly	EBRPD, Park Supervising Naturalists
Peter Koos	EBRPD, Sr. Landscape Architect

I. INTRODUCTION

I. INTRODUCTION

A. PURPOSE AND ROLE OF THE EAST BAY REGIONAL PARK DISTRICT

The East Bay Regional Park District (referred to as EBRPD or the "District") is a State-mandated special park district operation in Alameda and Contra Costa Counties, encompassing over 45 parklands on about 60,000 acres. The purpose of the EBRPD is "to acquire, develop and operate regional parklands in perpetuity for public use and conserve these lands for the purpose of making the outdoor environment available for the enjoyment and education of the general public" (California Public Resource Code 3.550).

The District is governed by an elected Board of Directors, responsible for providing direction to fulfill the District's role in the community and establish policies and objectives as necessary to accomplish the District's purposes.

The District's objectives enumerated below are intended to provide the public, the Board of Directors and Staff of the District, other governmental agencies and the private sector with a clear statement which will be used to guide the District.

1) To provide a diversified land and water system of regional parks, recreation areas, wilderness, preserves, trails and shorelines and parkland/related services which will provide District residents with opportunities for creative use of outdoor leisure time.

2) To acquire, preserve and interpret significant examples of the natural environment, including biologic, geologic, scenic and outdoor historic resources which exist within the boundaries of the District.

3) To cooperate with other public agencies in the acquisition, preservation and management of non-park, open space lands.

4) To emphasize balance of both environmental concerns and regional recreation opportunities within the system of parklands operated by the District.

5) To effectively conserve energy by dispersed location of parklands close to the people throughout the District; by reasoned management of energy resources available to the District and by cooperation with other public and private entities in joint efforts to conserve dimin ishing energy resources. (EBRPD Master Plan, pg. 7)

B. PURPOSE AND ROLE OF THIS DOCUMENT

This document contains three major sections: Land Use-Development Plan, Natural Resources Management Plan and Environmental Impact Report. Other chapters of the report serve as background material for the major sections.

1. The Land Use-Development Plan (referred to as the "Plan" or "LUDP") is a part of the planning process required by the East Bay Regional Park District Master Plan (adopted 1973, revised 1980).

> The District will, following adoption of the resource analysis, prepare a land use-development plan prior to any significant development or substantial public use of the site. The plan will identify natural environment areas, within the parkland classification system which will control planning and management of the parkland and any recreation or staging area within the proposed parkland preservation plan will be prepared in map form along with supporting narrative. Specific sites will be planned with full recognition of both environmental and recreational needs based upon the resource analysis. Full consideration will be given to site resources to preserve significant resource values as well as public recreation need and demand as identified in policies relating to those areas of concern.
>
> Recreation need and demand policies shall be based upon: Data collected as part of the need and demand survey program. Expressed public desire for development or provision for activities. Evaluation of the recreational needs of current and future residents and overall regional system needs which can be met at a specific parkland. (EBRPD Master Plan, pg. 28)

Therefore, the purpose of the LUDP is to direct future park development by: outlining expected levels of use and development, delineating general park character, planning access points and circulation systems, and dividing the park into zoning units.

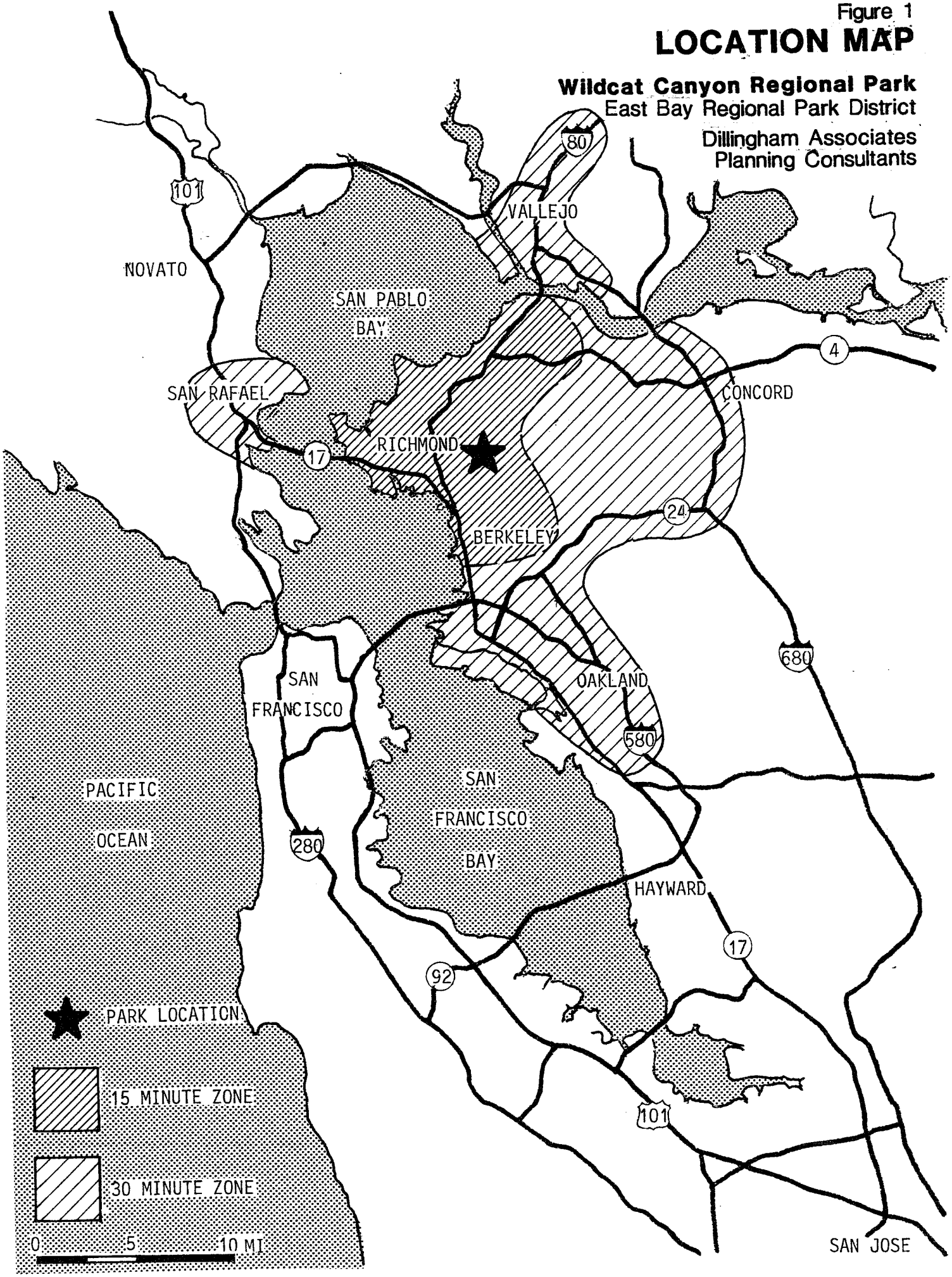
The LUDP is based on several inputs including the results of the previously-accepted Resources Analysis, public interest, as expressed in correspondence or at public hearings, and the existing adopted policies of the District in conformance with Regional and local plans.

Figure 1

LOCATION MAP

Wildcat Canyon Regional Park
East Bay Regional Park District

Dillingham Associates
Planning Consultants



2. The Natural Resources Management Plan (NRMP) proposes objectives and policies with which to manage the land, water, vegetation and wildlife resources of the parkland.

3. The Environmental Impact Report (EIR) as mandated by state law, discusses the environmental impacts which could result from the proposed plans of the LUDP, identifies mitigation for possible significant impacts, and reviews project alternatives. Environmental Impact Report Policy is found on Page 45 of the District Master Plan.

C. LOCATION AND PARK DESCRIPTION

Wildcat Canyon Regional Park is located in the Berkeley Hills east of the urban areas of Richmond and El Cerrito, in Contra Costa County, California. It is bordered on the south-east by Tilden Regional Park, and on the north-west by Alvarado Park, which the EBRPD is incorporating into Wildcat Canyon Park. The park areas consist of Wildcat Canyon and several tributary canyons bordered by two ridges, the Berkeley Hills to the west and San Pablo Ridge to the east. The topography is generally rugged. The canyons are wooded and the ridges are covered with grass or brush. Both Wildcat Canyon Park and Alvarado Park contain enclosed areas visually isolated from urban development, as well as ridges with extensive views.

Wildcat Canyon Regional Park, as discussed in this report includes 178 acres adjacent to the north end of Tilden Regional Park. This area has been traditionally managed as part of Wildcat Canyon and, is proposed to be transferred officially to Wildcat Canyon Regional Park.

Wildcat Canyon Regional Park includes about 2,600 acres with access from Wildcat Canyon Parkway in the north and Central Park Drive and Canon Drive through Tilden Park in the south. About 1% of WCRP is developed iwth recreation facilities including picnic areas at the north end in Alvarado Park, plus an adjacent environmental education center, a farm livestock enclosure and public areas at the north end of Tilden Regional Park. Important recreation facilities include a system of roads and trails for hikers, joggers, equestrians, motorists, and bicyclists. Alvarado Park is a 42 acre facility owned and operated for many years by the City of Richmond. It is located on either side of Wildcat Creek at the mouth of Wildcat Canyon. A number of existing picnic areas accommodate groups ranging in size to several hundred. Existing facilities in Wildcat Canyon Regional Park and Alvarado Park are shown on Figures 2 and 3.

D. PARKLAND OWNERSHIP AND EASEMENTS

Wildcat Canyon Park is owned in fee by the East Bay Regional Park District. Alvarado Park is owned by the City of Richmond which has offered to convey it to the EBRPD. Various inholdings in Wildcat Canyon Regional Park are discussed on Pages 91 and 92.

Figure 2

EXISTING LAND USE & CIRCULATION

Wildcat Canyon Regional Park
East Bay Regional Park District

Dillingham Associates
Planning Consultants

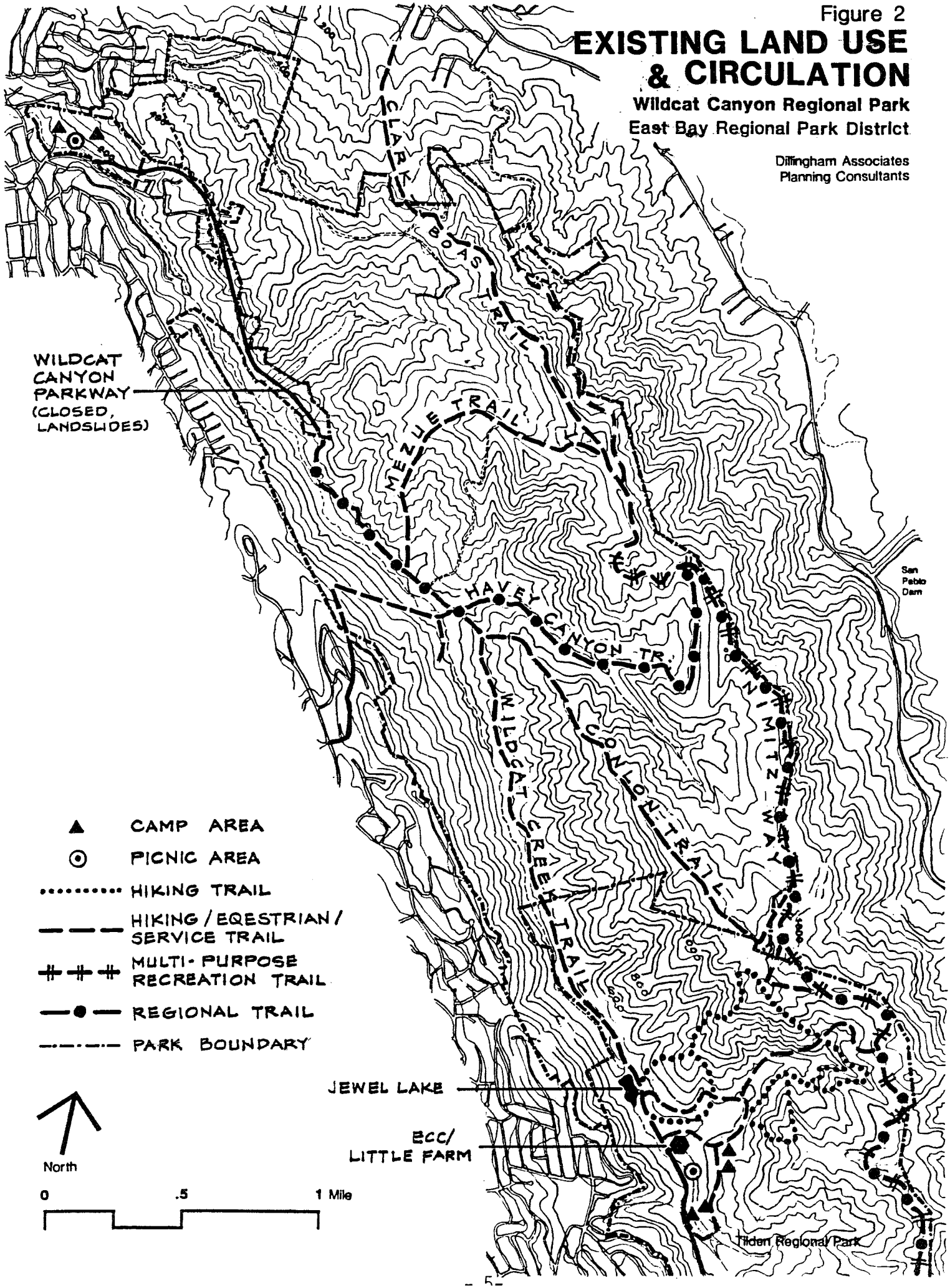
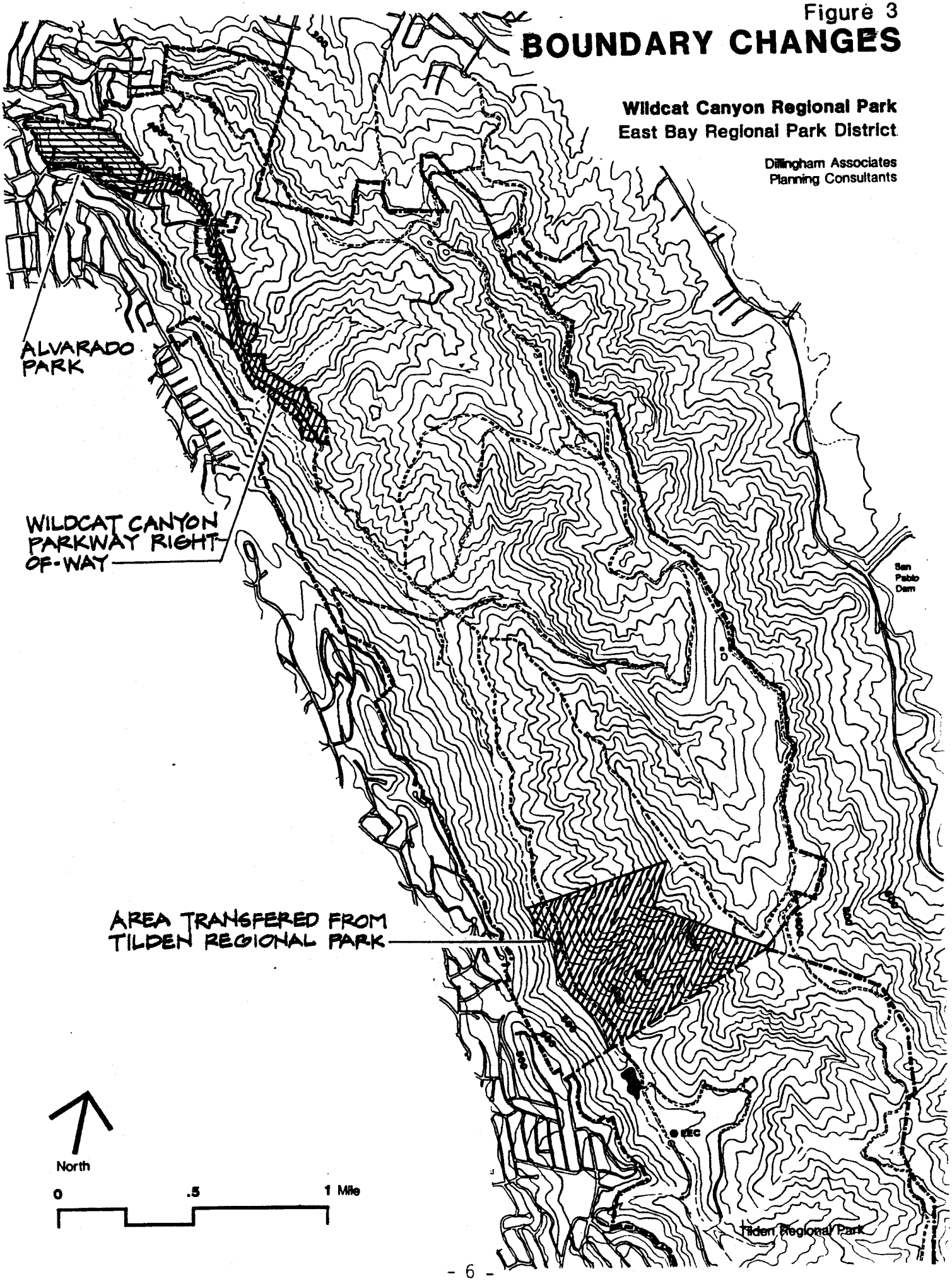


Figure 3

BOUNDARY CHANGES

Wildcat Canyon Regional Park
East Bay Regional Park District

Dillingham Associates
Planning Consultants



There are six existing easements in Wildcat Canyon Park which are described of record and can be located. These include: 1) A 25' easement for telephone and telegraph held by Pacific Telephone Company and occupied by a main overhead trunk cable; 2) A sanitary sewer main easement, by virtue of an assessment district. No width of easement is stated because the sewer was placed in the right of way of an intended street which was never constructed; 3) and 4) Easements 100' in width for power lines and poles held by Pacific Gas & Electric. These easements contain major transmission lines; 5) A 20' easement owned by Pacific Telephone and Telegraph for telephone and telegraph lines. The line which occupied this easement has been abandoned.

The above easements carry rights of ingress and egress across adjoining Park District Lands for purposes of maintenance and reconstruction. A sixth easement is a 100' underground easement for water tunnel purposes reserved by EBMUD in a 1952 grant deed to a private party.

EBMUD retains 50% of the rights to minerals lying 500' below the surface, covering all of Wildcat Canyon except for small isolated plots once owned by the US government. There is no right of surface entry by EBMUD or others for any of these mineral reserves.

EBMUD reserves water rights and restrictions regarding storage of water over the entire park except for isolated parcels once owned by the US government. The reservation of rights to water are a standard feature of EBMUD conveyances of excess land and are intended to prevent competition in the sale and distribution of water.

Boundary Line Alterations

The official boundary line between Wildcat Canyon Regional Park (WCRP) and Tilden Regional Park has been located in the past along a line that was the former edge of Park District land holdings. These irregular boundaries are no longer useful for defining park uses or maintenance activities. The designated boundary between Tilden Regional Park and Wildcat Canyon Regional Park will be relocated. The area proposed for the transfer is approximately 178 acres. (See Figure 3)*

For the purposes of this report, Alvarado Park and Wildcat Canyon Parkway, both owned by the City of Richmond, are considered to be a part of Wildcat Canyon Regional Park. This land has been "offered" to the Park District as a title transfer. Title transfer has not yet occurred.

*During early drafts of this Study, the transfer of the entire Tilden Natural Area including the environment education center and the Jewel Lake Area -- an additional 480 acres -- was considered. This report still contains discussions of Tilden Nature Area as it relates to WCRP's function, operations and impacts.

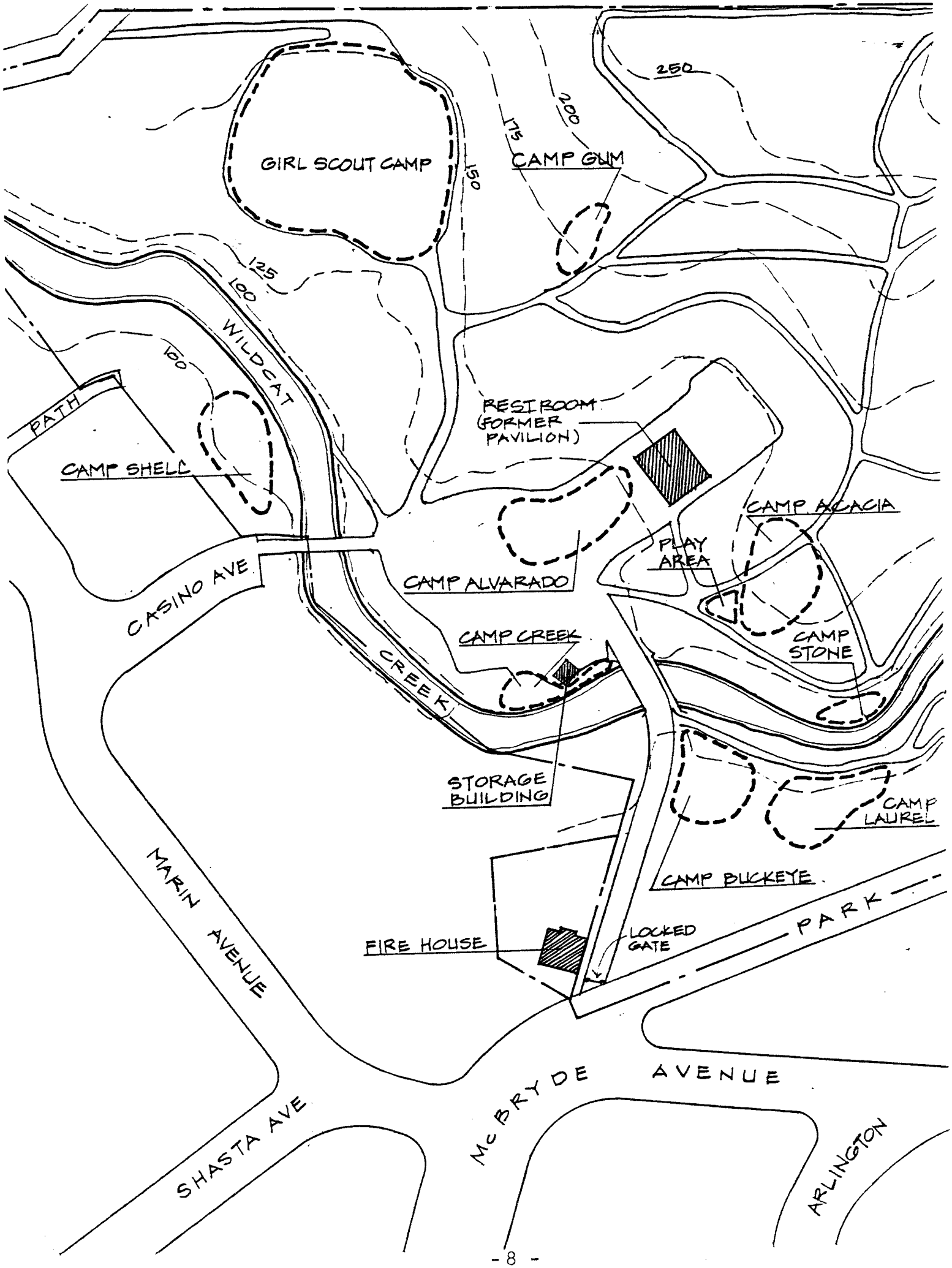
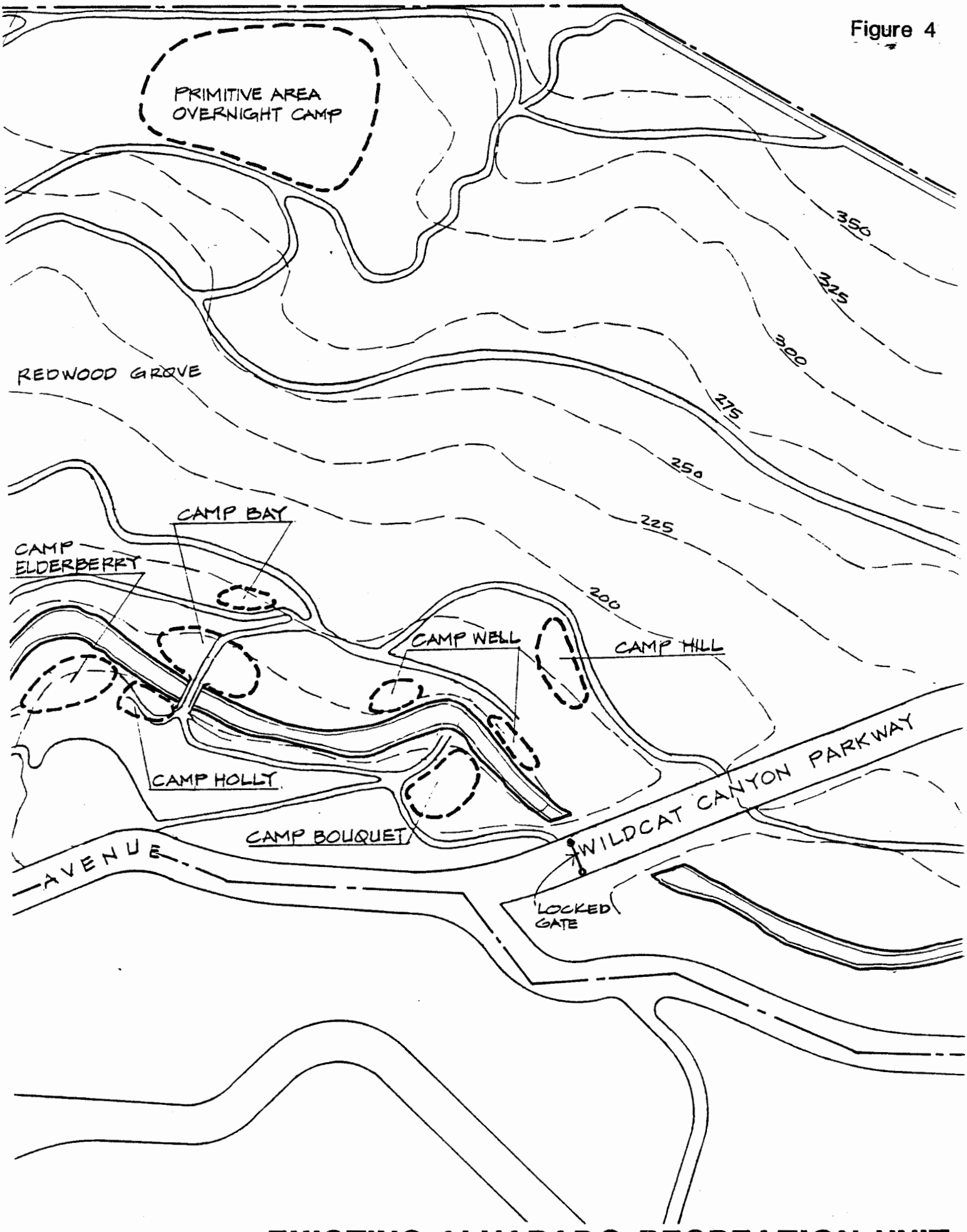

GIRL SCOUT CAMP
CAMP GUM
250
200
175
150
125
100
WILDCAT
PATH
CAMP SHELL
RESTROOM (FORMER PAVILION)
CAMP ACACIA
PLAY AREA
CASINO AVE
CAMP ALVARADO
CAMP CREEK
CREEK
CAMP STONE
STORAGE BUILDING
CAMP LAUREL
CAMP BUCKEYE
MARIN AVENUE
FIRE HOUSE
LOCKED GATE
PARK
McBRYDE AVENUE
SHASTA AVE
ARLINGTON

Figure 4



EXISTING ALVARADO RECREATION UNIT

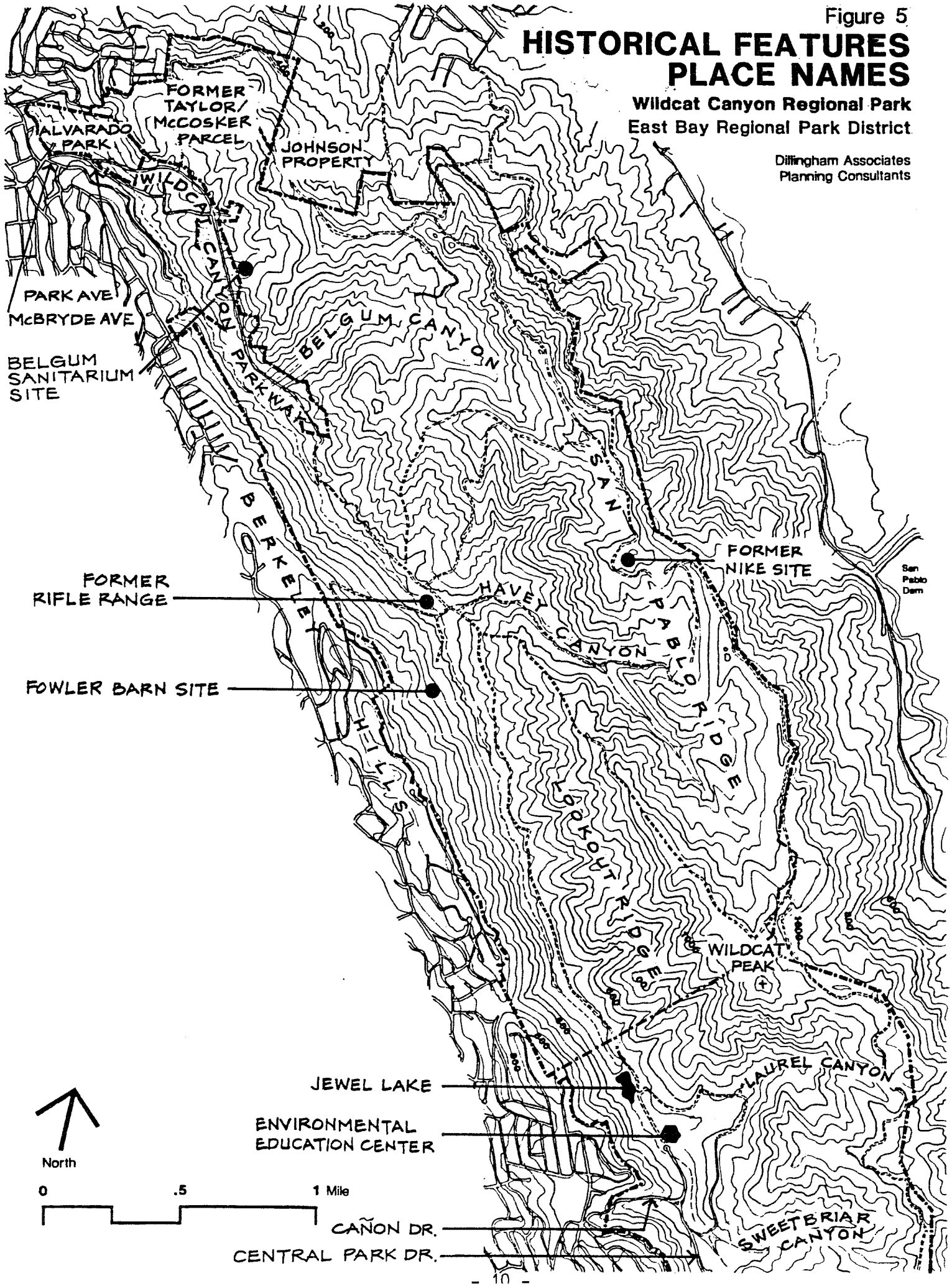
Figure 5

HISTORICAL FEATURES PLACE NAMES

Wildcat Canyon Regional Park

East Bay Regional Park District

Dillingham Associates
Planning Consultants



In this document, Alvarado Park is sometimes referred to as the "Alvarado recreation unit", -- a reference to its function within Wildcat Canyon Regional Park. These terms are used interchangeably. A further area that is under consideration for transfer to the District from the City of Richmond includes the right-of-way to Wildcat Canyon Parkway. This right-of-way extends a variable distance on either side of the roadway itself. This right-of-way area is also treated as if a part of the Regional Park.

E. PARKLAND NAMES

The name Wildcat Canyon Regional Park today applies to the District lands north of the original Wildcat Canyon Regional Park, now know as Tilden Regional Park. It is named for a principal topographic feature of the area, Wildcat Canyon.

Many features of the parks have names which have been used for years and are strongly associated with those areas. Various feature names are given here to identify previously unnamed landmarks, and restate older names. Wherever possible, historical names have been used.

Alvarado Park: A 42 acre park used since the early part of this century and developed in the 1930's by the CCC for the City of Richmond; located at the north end of WCRP.

Belgum Canyon: A major tributary canyon named for the Belgum Sanitorium formerly located on its north rim.

Berkeley Hills: The major ridge forming the west boundary of the parks.

Environmental Education Center (EEC): Nature interpretive center, staff office, minor maintenance yard located at the north edge of Tilden Regional Park. Directly adjacent to the EEC are picnic and parking areas and the Little Farm.

Fowler Barn Site: Flat pad just south of Rifle Range Road, on the west side of Wildcat Creek; site of former barn and stables. Also known as "Rancho El Siete".

Havey Canyon: A major tributary canyon in the central part of WCRP (formerly Nike Canyon). It includes the site of the Havey family homestead of the late 1800's.

Inspiration Point: A scenic overlook point adjacent to Tilden Regional Park along Wildcat Canyon Road.

Jewel Lake: A small man-made lake in northern Tilden Park.

Johnson Property: A parcel of land adjoining WCRP at the north end of San Pablo Ridge. This parcel currently blocks continuous access along San Pablo Ridge. See Figure 5.

Lake Anza: A man-made lake constructed in Tilden Regional Park by the CCC for the EBRPD in the late 1930's, originally for use as a fire reservoir.

Laurel Canyon: A major tributary canyon south of Jewel Lake.

Lookout Ridge: A ridge separating Wildcat Canyon from Havey Canyon in central WCRP. It is named for the lookout constructed on Wildcat Peak in 1962, and for the panoramic bay views to be seen from the ridge.

McBryde Avenue: Main street connection from Interstate 80 to Alvarado Park.

Oak Canyon: The historic name of a small tributary canyon located south of Jewel Lake.

Park Avenue: Narrow residential street, along the south-west edge of Alvarado Park.

Rifle Range Road: Road access from the Arlington to the mid-point of the western boundary of WCRP. Public road stops at the Park boundary. Service road continues at a steep grade to the canyon floor to the site of the former rifle range.

San Pablo Ridge: The major ridge forming the east boundary of the Wildcat Creek watershed.

Sweetbriar Canyon: A large tributary canyon located south of Jewel Lake; the former location of the Sweetbriar Dairy.

Sweetbriar Meadow: A meadow near the mouth of Sweetbriar Canyon, also known as the model airplane field.

Taylor/McCosker Parcel: A former privately owned parcel of land, now part of WCRP and directly adjacent to the east of Alvarado Park. Site of an EBMUD tank and Cable Vision facilities. See Figure 5.

Wildcat Canyon Parkway: A major roadway extended into the north end of Wildcat Canyon from Park Avenue at Alvarado Park. This road was intended to serve a development project that was later abandoned. Several earth slides have forced closure of the Parkway to the public although it is passable by service vehicles.

Wildcat Gorge: A narrow, deep gorge north of Lake Anza.

Wildcat Peak: The highest point along San Pablo Ridge within Tilden Regional Park. (Height = 1,205 feet.)

Willow Canyon: A small tributary canyon immediately south of Sweetbriar Canyon.

II. BACKGROUND

II. BACKGROUND

A. LOCAL AGENCY PLANS/ADJACENT LAND USE

Local Agency Plans

The Richmond General Plan, a long range plan for the City, was originally adopted in 1966 and amended in 1967 to designate all portions of Wildcat Canyon Regional Park as "Regional Park". However, the designation of areas added to the park since that time have not been changed to reflect park additions. These areas are currently designated "Rural Low" residential use (.0 to 1.9 dwelling units per net acre). Zoning -- which governs day-to-day land use decisions -- for the park area is indicated as residential. Richmond zoning has a number of inconsistencies with their General Plan and these are not considered by their Planning Department to be of any consequence in limiting the use of Wildcat Canyon Regional Park for park and recreation purposes. Specific zoning designations for surrounding properties are noted below.

Adjacent Land Use

Wildcat Canyon Regional Park is located in the Berkeley Hills east of the urban areas of Richmond and El Cerrito, in Contra Costa County, California. It is bordered on the south-east by Tilden Regional Park, and on the north-west by Alvarado Park, and portions of the City of Richmond.

Surrounding the south-east corner of WCRP is watershed land owned by EBMUD. It is maintained as permanent watershed and open space with restricted access. Trails are open to the public on a permit basis.

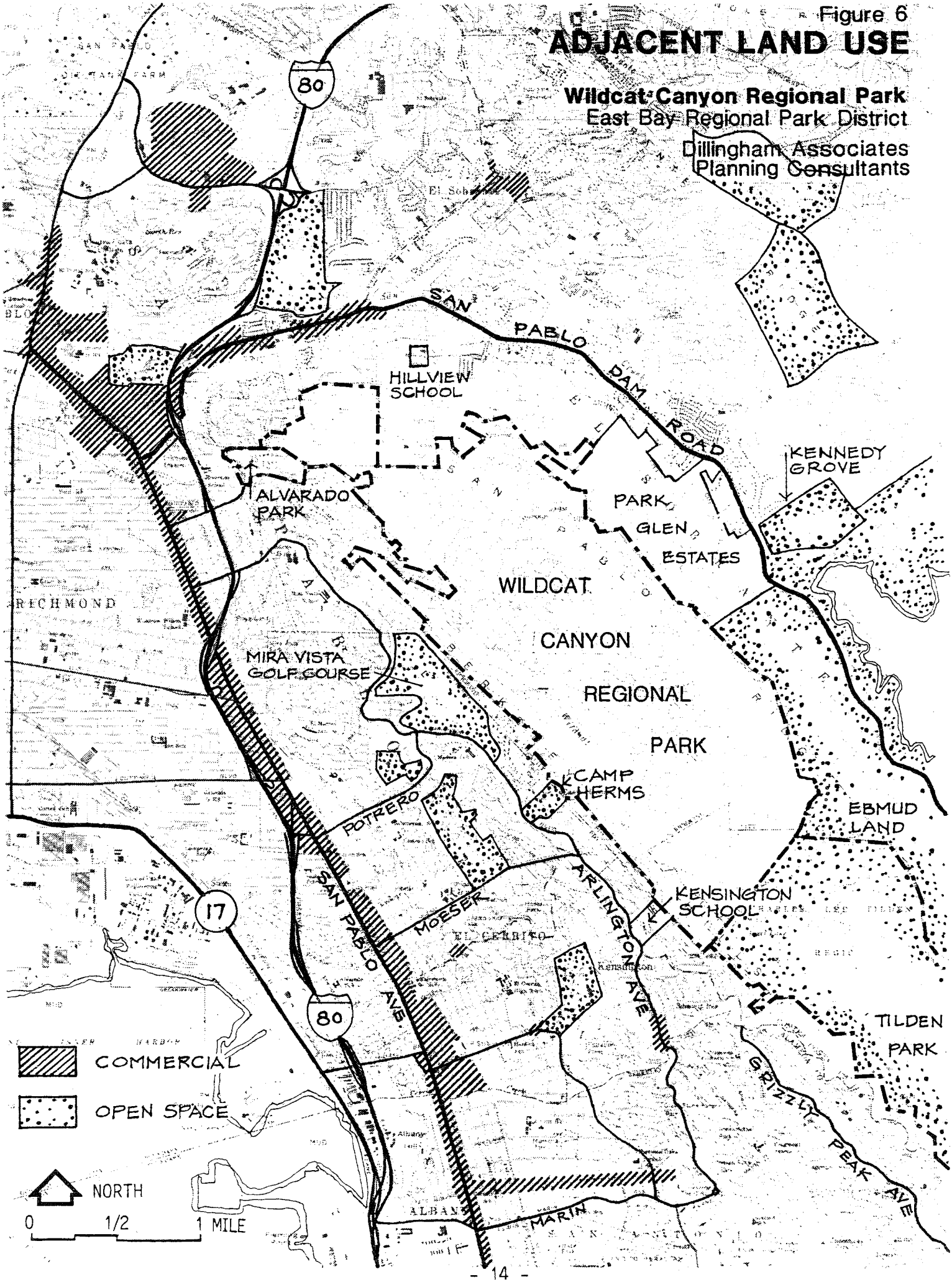
Along the western edge of WCRP - from the intersection of Grizzly Peak Boulevard and Wildcat Canyon Road at the south to Alvarado Park at the north - are private residential developments in the cities of Berkeley, El Cerrito, Richmond and unincorporated areas of Contra Costa County including Kensington. This development is mostly single-family homes of low and moderate density with the exception of one area of higher density, the Villa Mira Vista condominiums overlooking the park at the end of Rifle Range Road. Interspersed among single-family homes are a few schools and open spaces, among them the Mira Vista golf course (private), Camp Herms (a Boy Scout camp), and Kensington School. The only future development in this area is likely to be limited addition of single-family homes, although higher density is allowed: five to seven units per acre.

Immediately north of Alvarado Park and to the north-west of WCRP is a single family residential development in the unincorporated area of the County. No additional development is anticipated here.

Figure 6

ADJACENT LAND USE

Wildcat Canyon Regional Park
East Bay Regional Park District
Dillingham Associates
Planning Consultants



Of all the privately owned properties surrounding the WCRP, the area north and north-east of the Park has the greatest potential for development due to its largely undeveloped condition, its proximity to other residential development and its accessibility via San Pablo Dam Road.

Though the city of Richmond boundary weaves in and out of this area, properties immediately adjacent to the Park are almost all within the city of Richmond's jurisdiction. Already approved by the city of Richmond is the Park Glen Estates development -- a Planned Area Development (equivalent to PUD) consisting of 983 units of townhouses on 363 acres of land holdings. Although the adopted plan shows no house within 1,000 feet of park land, a water tank will be a little closer. This development may have a visual impact on users of Wildcat Canyon Regional Park because of its exposure from Nimitz Way. The unstable soil conditions in that portion of the Park as well as in the Park Glen Estates property may also present land slide problems affecting both the park and the housing development. See the Resource Management Section for further discussion.

The area between the former McCosker property and Park Glen Estates is zoned as low density residential except one parcel zoned as PA (PUD). The area is made up of large parcels owned by a handful of individuals. It is anticipated to change its rural use and characteristics to low density residential use in time. Again, the unstable soil conditions, making such developments vulnerable to earth slides, will be of concern to the District from a potential liability point-of-view and to park users from a visual point-of-view.

B. PARK PLANNING ZONE

The District Master Plan recommends a planning zone which serves a population within 30 minutes driving time of the park. Within this zone, special attention is to be devoted to the total population of the zone, available transportation and access to the park, the supply of regional recreational facilities and the potential demand for park and recreational use. This information is necessary in establishing park access and user programs. The Planning Zone is shown in Figure 1.

> The District will plan and develop a parkland system designed specifically to meet the needs and demands of District residents. A planning zone, based generally on a 30-minute travel time or on a park use profile adapted from the 1976 Tyler Study, shall identify principal users and potential users of a parkland whose opinions, along with other interested District residents, will be actively sought prior to design of the parkland. (EBRPD Master Plan, pg. 27)

1. A summary of population currently within the 30-minute-arriving-time Planning Zone is below. It does not include population areas within the zone that are outside Alameda and Contra Costa Counties, for example, Vallejo.

Table No. 1

Population Within Wildcat Canyon Regional Park Planning Zone

Alameda County		Contra Costa County	
Alameda	66,385	Concord	103,664
Albany	15,184	El Cerrito	23,057
Berkeley	105,778	Lafayette	22,496
Emeryville	3,840	Martinez	24,403
Oakland	347,325	Moraga	14,857
Piedmont	10,472	Pleasant Hill	26,514
San Leandro	65,297	Pinole	14,431
		Richmond	76,011
		San Pablo	20,872
		Walnut Creek	56,215
		Total Zone - Incorporated Areas Only	1,003,574

(Source: Association of Bay Area Governments
1983 Controlled County Population Estimates)

The figures above indicate that the location of WCRP will make it attractive to a significant number of people. In 1976 the Tyler Research Association published a study on behalf of EBRPD which found that, out of 732 people interviewed at nine EBRPD parks, 21% said that they have visited WCRP. Nearby Tilden Regional Park topped the list with 40% of the respondents saying they had visited there. The study also found that the average distance travelled to parks where interviewing was conducted was 12 miles, and that 70% of the respondents had come from within 25 miles driving distance. In conjunction with the population statistics above, it is clear that WCRP is easily accessible to over a million East Bay Residents.

Significantly, in the same study, 91% of those interviewed listed park security and protection against crime as very important considerations in choosing a park to visit. Also listed were: The opportunity to do something physically active (60%); the opportunity to get away from people (59%); free admission and parking (58%); the chance to do nothing (55%). The existing operation of WCRP, as well as the proposed uses after development are consistent with these considerations.

2. Transportation and Access

There are two major access points, two trailheads and about a dozen local access points to the park. Major access to the northern end of the Park is from Wildcat Canyon Parkway at the end of McBryde Avenue and Park Avenue, less than a mile east of Interstate 80 via the Amador exit from the south, McBryde from the north. However, Wildcat Canyon Parkway has been closed to the public since early 1981 because of landslides. At present, Park Avenue, near its intersection with the Parkway, is used as an informal staging area for pedestrian access to WCRP. Major access to the southern end of the Park is via Canon Drive and/or Central Park Drive in Tilden Regional Park, reachable through various local streets in Berkeley including Grizzly Peak Boulevard along the ridge line.

Inspiration Point on Wildcat Canyon Road provides trailhead facilities from the south for Tilden and Wildcat Regional Parks via Nimitz Way. At the northern end the Clark/Boas trailhead at the end of Clark Road off San Pablo Dam Road provides equestrian and hiker access.

Local access points are mostly from ends of local roads and include no parking areas. These include entrances from:

a. Lake Drive.
b. Kensington School.
c. Terrace Drive.
d. Leneve Place.
e. Rifle Range Road.
f. Bernhard Avenue intersecting Kensington Avenue.
g. Capitol Hill Avenue.
h. Bonita Road.
i. Monte Cresta.
j. Jerilynn Avenue.
k. Mary Lane.
l. La Colina Road.

There are also three local access points to Alvarado Park: From Casino Avenue, from N. Arlington Avenue, and a path off Marin Avenue to the Camp Shell area in Alvarado Park.

Approximately 14 miles of service roads are used for maintenance, fire protection, hiking, and horseback riding. Nimitz Way, formerly serving the Army NIKE base on San Pablo Ridge, is a primary service road in the park.

Along the western side of WCRP, AC Transit provides public transportation. Bus line 68 stops in Richmond at the intersection of McBryde Avenue and Arlington Boulevard, within one block of Alvarado Park. Within four blocks of the Environmental

Education Center, line 67 stops at the intersection of Spruce Street and Wildcat Canyon Road. The #7 line stops at Euclid and Grizzly Peak Boulevard. Summer bus line from the central Berkeley BART Station goes to the EEC and Lake Anza. The #70 line bus travels on The Arlington and stops at Rifle Range Road. The only bus line close to the east side of the park is a #71 line from central Richmond which stops at Clark Road and San Pablo Dam Road.

3. Regional Recreation Study

There are a number of existing and planned District parkland areas within the 30-minute planning zone. Those areas within the zone offering upland hilly terrain and associated uses include:

- Briones Regional Park: Hiking, riding, picnicking, jogging, nature study, archery range interpretive programs, children's play area.

- Kennedy Grove Regional Recreation Area: Hiking, riding, group picnicking, turf area, day camp.

- Sibley Regional Preserve: Hiking, nature study, riding.

- Temescal Regional Recreation Area: Swimming, hiking, nature study, jogging, group picnicking, children's play area, fishing.

- Tilden Regional Park: Picnicking, group day use, hiking, riding, nature study, jogging, turf area, swimming, interpretive programs, and other more active recreational activities.

Those areas offering shoreline related activities include:

- R.W. Crown Memorial Beach: Swimming, fishing, youth group day camping, picnicking, windsurfing, nature programs, hiking, jogging, sunbathing, turf area.

- Point Isabel Regional Shoreline: Fishing, bicycling, picnicking, turf area.

- Point Pinole Regional Shoreline: Hiking, fishing, bicycling, picnicking, jogging, nature study, ball fields, riding.

- San Leandro Bay Regional Shoreline: Nature study, hiking, bicycling, fishing, family and group picnicking, sunbathing, turf area.

- Brooks Island Regional Preserve: Scientific and passive nature study, restricted access.

- Miller/Knox Regional Shoreline: Picnicking, hiking, jogging, nature study.
- Martinez Regional Shoreline: Fishing, picnicking, ball fields, hiking, jogging, nature study.
- Oyster Bay Regional Shoreline (not completed).

4. Potential Future Recreation/Open Space Demand

The 1976 Tyler study was conducted on behalf of the District to assess community awareness, attitudes, and expectations toward the District and use of the parkland facilities. Although the survey was not designed specifically for WCRP, the results can be used to predict recreational demand and assess the potential attractiveness of WCRP.

Table No. 2

Recreational Uses Respondents Would Do in Parks

Use	
Picnicking *	96%
Loafing, Relaxing, Sunbathing †	92
Sightseeing †	91
Barbecuing †*	85
Viewing Exhibits in Nature Center *	83
Hiking †	83
Swimming	78
Playing Sports - Softball, Football, Soccer, Etc.	75
Fishing †	70
Bicycling †	69
Attending Nature Education Programs *	64
Horseback Riding †	61
Boating	58
Using Children's Play Area	57
Overnight Family Camping	53
Jogging †	52
Youth Group Day Camping *	42
Walking or Running of Dog †	42
Motorcycling	15
None of the Above	1

(†) Cross indicates activities which are currently available at WCRP.
(*) Asterisk indicates activities which are available in Alvarado Park and Tilden Nature Area.

Beyond the findings for recreation demand from the Tyler Report, a second study, completed in 1973 by the Association of Bay Area Governments titled "Recreation Preferences of Minority People in the East Bay Area - A Pilot Study", found that minority residents at that time made only moderate use of the existing regional park system. Although the interview sample was relatively small (55 people), some general trends emerged that relate to WCRP.

a. About 60% of respondents were infrequent park users, going less than once a month. (pg. 4)

b. People primarily use regional parks closest to home. (pg. 20)

c. Many low income residents are unaware of regional park facilities (pg. 40) and that "outreach" programs could increase awareness.

d. Lack of transportation and/or transit service to parks is a major barrier to use by low income groups. (pg. 34)

e. Park activities currently pursued are mostly non-wilderness; however, there is a demand for outdoor park and wilderness facilities which is not indicated by present recreational behavior. (pg. 22)

f. Suggested activities for development (pg. 42) include: More and larger picnic facilities; more swimming; ball fields; basketball courts.

C. PUBLIC INPUT

The District policies set forth requirements for public input into the planning process:

> "To provide the public an opportunity to express its opinion about the resource analysis and to comment on potential development and uses of a new parkland site, each parkland in the following manner:
>
> 1. Following completion of the resource anaysis, to review the analysis and to solicit public comments and suggestions which should be considered in the formulation of the Land Use-Development Plan.
>
> 2. Following completion of the Land Use-Development Plan and prior to Board approval of the plan, to provide an opportunity for additional public review and comment.
>
> 3. Such public comment shall be considered for use in final plan." (EBRPD Master Plan, pg. 29)

On January 25, 1984 a public hearing was held in the Richmond City Council Chamber to hear comments on the Resource Analysis and offer suggestions to incorporate into the Land Use Development Plan. Over 50 individuals attended the hearing. Tom Lindenmeyer presented the Resource Analysis and a brief slide show, followed by which was a question and comment session conducted by Director Mary Lee Jefferds.

The issues raised are summarized as follows:

Land Use-Development Plan (including access)

- Support was voiced for acquisition and development of Alvarado Park, and the re-opening of access roads into Wildcat Canyon Park, including Wildcat Canyon Parkway and Rifle Range Road.

- It was felt that the Parkway should be closed or else used as a one lane road for fire access only.

- It was suggested that the City of Richmond be responsible for repair of the Parkway.

- It was indicated that Alvarado Park must be made safer and that better security was needed. It was suggested that a uniformed ranger be present to collect fees for entrance to the park.

- A request for access for runners in Alvarado Park was made as well as opening Alvarado Park, but not the Belgum Sanitorium site.

- Disappointment was expressed over the loss of picnic facilities off of Rifle Range Road.

- It was advised that picnic facilities be spread out so that large groups of people would not be clustered together, increasing fire risks.

- There was support for establishment of an equestrian center at the north end of the park, with arena and staging area.

- The eroding of trails in the park was pointed out, and it was suggested that a major cause of the erosion was the conflict between pedestrian and equestrian use. Hiking, fire, and equestrian trails should be kept separate.

- Because of the proximity of highly developed Tilden Park, it was felt that Wildcat Canyon Park should not be over developed.

- The importance of fire trails and fire protection was stressed, especially between the north and south ends of the park from the Berkeley Hills.

Natural Resource and Wildlife Management

- It was urged that a long-term water management plan be devised to help restore the stream, including more detailed inventory.

- Also stressed was the need for protection of trails from motorbikes.

- It was suggested that there is a need for an on-going environmental educational program and a good relationship between the park and neighboring schools.

- Better control of run-off water on the north-east side of San Pablo ridge at La Cima Road.

- Poisoning of ground rodents was thought by several to be a hazard to other animals on the food chain.

- It was questioned whether the presence of feral cats was a real problem and whether poisoning was necessary.

- Would it be more cost effective to remove non-indigenous vegetation in certain local areas rather than on a widespread basis?

Boundaries, Acquisitions, and Adjacent Properties

- Acquisition of "Parcel C" property was urged.

- Also urged was the acquisition of property above El Sobrante that has been offered to the District as a donation.

- Boundary changes were discussed, and it was argued that there might be confusion if the entire Tilden Nature Area is transferred because the Nature Center is known as being in Tilden. The use of an alternative site, such as Laurel Canyon was brought up.

D. PARK ACQUISITION

In 1936 almost 1,910 acres of surplus lands, know as "Central Wildcat Canyon" and "Upper Wildcat Canyon" were purchased by EBRPD to create the first regional park, which was then called Wildcat Canyon Regional Park. In 1937, the name was changed to Charles Lee Tilden Regional Park, in honor of the first President of the EBRPD Board of Directors.

When the purchase of Upper Wildcat Canyon for Tilden Park was finalized, surplus EBMUD property downstream from the new park was offered to the EBRPD, but the Board of Directors felt that funds were insufficient and declined the offer. In the late 1940's and early 1950's, the offer was renewed. However, the newer offers were not acted upon and in 1952 the land was sold to private interests.

Following the sale of lower Wildcat Canyon, a major development plan was proposed and the area was annexed into the City of Richmond. Plans included development of 900 acres of the canyon, with a large residential area, schools, and small-scale parks, including a park strip along Wildcat Creek from Tilden Park to Alvarado Park. A road system was designed with a major artery along San Pablo Ridge which presumably would have connected to Wildcat Canyon Road at Inspiration Point. The project ran into financial difficulties and was abandoned, but not before a sewer line and the major entrance road, Wildcat Canyon Parkway, were constructed. The four-lane parkway, constructed in 1961, extended for a distance of two miles. With the failure of the housing project, 800 acres of the lower canyon were purchased by the EBRPD in 1965.

The Belgum Sanitarium property was used as a medical facility after the turn of the last century, and acquired by EBRPD in 1974. Over a dozen additional acquisitions occurred form 1974 to 1980, totaling about 1,600 acres. About 300 acres were acquired from the City of Richmond during the same time. The most recent acquisition occurred in 1981, bringing the total for Wildcat Canyon Regional Park to 2,380 acres. The following shows the primary purchases made.

Table No. 3

Park Acquisition History

Previous Owner	Acreage	Date
Imperial Corporation of America	100.0	August 1969
Cit. Fed. Savings and Loan	100.0	September 1969
Nike	76.0	December 1971
City of Richmond	317.0	August 1972
Park Highlands	18.5	March 1973
Fidelity Savings and Loan	100.0	March 1974
Mendocino Savings and Loan	60.0	March 1974
Ross	75.0	March 1974
Pitzer	99.0	March 1974
Ansco Engineering	85.0	April 1974
Heiman	160.0	May 1974
Spenger	33.0	August 1974
Fowler	7.2	May 1977
Western Union	0.92	December 1977
Canyon Estates	145.0	December 1977

Table No. 3 continued

Domingos	17.9	August 1979
Trowbridge	818.0	June 1979
Trust for Public Land (former McCosker)	138.0	March 1981
Advance Dev. Inc. (former Taylor)	24.1	March 1981
Cunningham	0.92	December 1982
EBMUD	5.03	February 1983

Further Acquisitions

Although Wildcat Canyon Regional Park has gone through a series of major acquisitions as detailed above, there are several additional parcels that will be acquired to make the park a continuous and defined unit. Policies for further acquisition of land are:

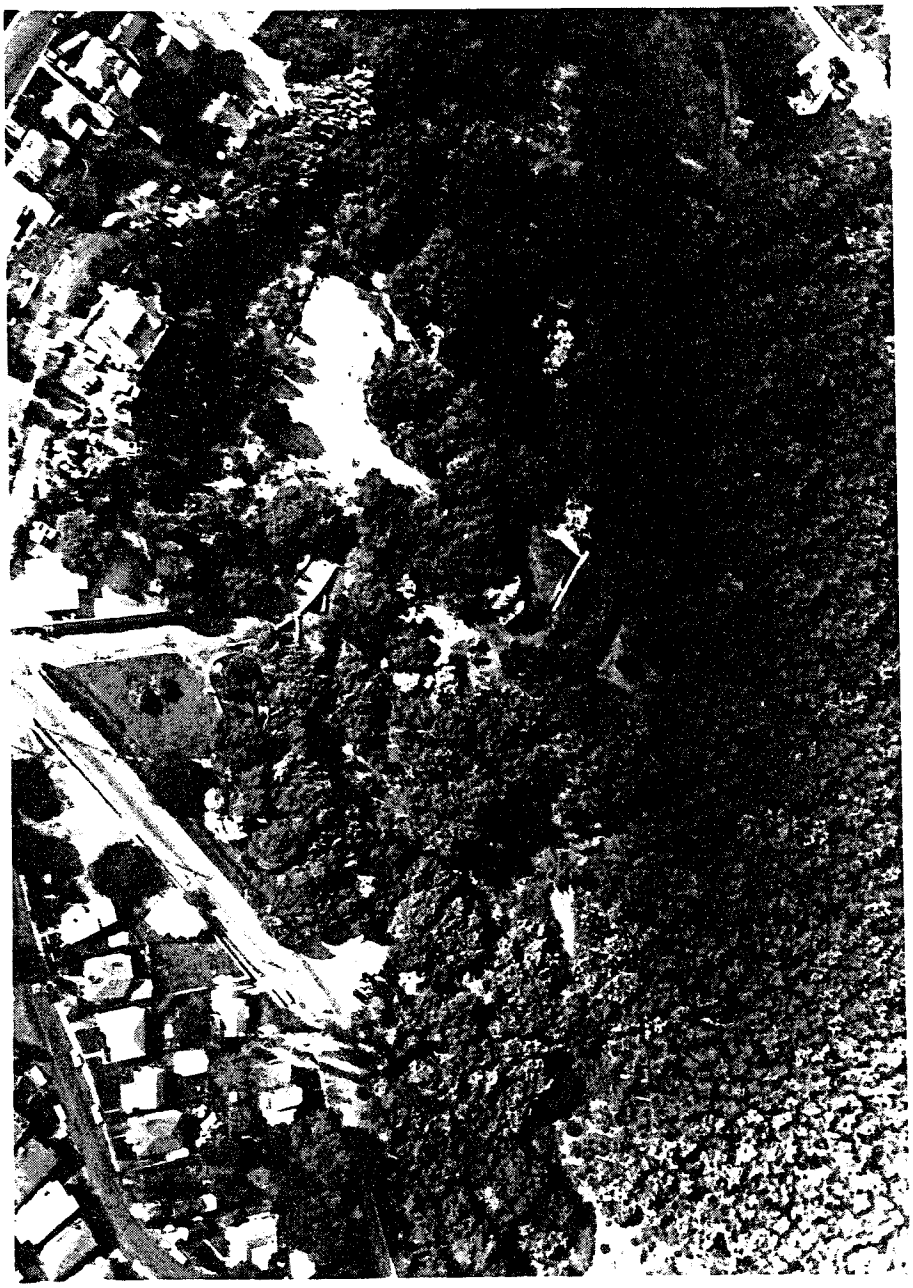
1. Parcels which, if developed for non-park uses, would have a major visual, biological or other impact on the park, the recreation experience and/or the natural systems.

2. Parcels which prevent or make difficult management of park land; parcels which restrict service and emergency access to various park areas.

3. Parcels which are surrounded by District land holdings.

4. Parcels which provide further trail extensions and additional access to the park.

III. LAND USE DEVELOPMENT PLAN



A. PARKLAND CLASSIFICATION AND PURPOSE

As noted on page ten of the District Master Plan, the District Board of Directors classifies all lands held by the District into one of the following categories: Regional Park, Regional Shoreline, Regional Preserve, Regional Wilderness, Regional Recreation Area, and Regional Trail. A separate Land Bank category is used for lands which have not been assigned. The classification system serves to provide general purpose, planning and management guidance for the various District land holdings.

The lands of Wildcat Canyon are designated as a Regional Park by the District Master Plan (page 9). The purpose and standards outlined in the District Master Plan (page 10) for a Regional Park are:

> Purpose
>
> The purpose of a Regional Park is to provide a spacious area with outstanding natural features where a variety of outdoor recreation opportunities can be provided for the enjoyment and education of the public.
>
> Minimum Standards
>
> For an area to be considered suitable for designation as a Regional Park, it must possess the following characteristics:
>
> 1. A Regional Park is an area of land, or land and water, of approximately 500 or more suitable acres.
>
> 2. Seventy to ninety percent of the area must have, or potentially have, a scenic or natural character. This portion should be designated as a Natural Area for planning and management purposes.
>
> 3. Ten to thirty percent of the area must be suitable for accommodating a variety of recreational activities. This portion should be designated as a Recreation Unit for planning and management purposes.

In addition to this statement of standards and purposes, and as a point of reference, the District Master Plan, in its Recreation Policies Section, lists various kinds of recreation activities that are accepted as regional (page 30).

Of course not all of them are appropriate in any specific park like Wildcat Canyon; however, some of the listed activities which are appropriate in Wildcat Canyon are: Backpack camping, bicycling, family picnicking, fishing, group picnicking, hiking, horseback riding, nature centers, and reserved youth group camping.

In its current condition, the 2,600 acres of Wildcat Canyon Regional Park falls within the definition of a Regional Park -- a spacious area, with recreational potential, outstanding natural features, and greater than 500 acres in size.

Beyond this definition, however, there are a number of qualities or resources that make the site special and particularly appropriate as a Regional Park. First, the site has a great visual appeal and outstanding scenic qualities. This character derives from the combination of rolling open grassland, wooded slopes as well as from the enclosed viewshed which limits the visual intrusion of surrounding urban development. In addition, there are outstanding views of San Pablo Bay, San Francisco and Marin. The visual character of Wildcat Canyon represents a landscape that is quickly vanishing from the Bay Area -- the grasslands caused in historic times by cattle grazing, and perhaps previously by Indian fires and tule elk grazing.

Beyond the visual quality of Wildcat Canyon, the Regional Park offers a rich variety of near-natural areas and conditions: Grassland, brushland, mixed broadleaf forest and riparian woodlands. In addition, the Canyon is underlain by geologic faults and covered with a variety of earth slides. Uniting most of the visual and varied natural conditions in the Park is the overall watershed of Wildcat Canyon creek which flows north from the upper reaches of both Tilden and Wildcat Canyon Regional Parks to the Canyon's gateway at Alvarado Park. This waterway and its tributaries extend to most of the Park's areas. The Wildcat Creek watershed is a major near-natural watershed in a large metropolitan area. Finally, in considering Wildcat Canyon's importance as a Regional Park, it is important to remember that the many visual and natural resources outlined above are directly adjacent to a major urban population center and provide a recreation resource of great convenience.

While Wildcat Canyon is entirely suited and appropriate as a Regional Park, it differs slightly from the definition and standards outlined in the District Master Plan (above) in that proposed developed recreation areas are less than the suggested minimum. Even with the addition of 20 acres of developed recreation at Alvarado Park, WCRP with 2,600 acres is still far below the suggested 10% of land suitable for use as a recreation unit. However, considering the relatively heavy concentration of recreation facilities in Tilden Park and the difficulty of maintaining elaborate facilities in the landslide-prone central portions of the park, the low level of recreation development in Wildcat Canyon is appropriate.

The EBRPD's "Urban Threshold Park Policy" under Section IV Resource Policies, Paragraph C of the District Master Plan states:

> The District shall take advantage of natural areas contiguous to urban concentrations to provide introductory experiences and programs for city dwellers not familiar with the use of regional-scale parklands. Such areas, easily accessible to urban concentrations, and providing a multitude of natural and nearby contrasting man-made activities and features, whose interactsions are clearly evident, serve as dynamic reference resources. Innovative relationships between park programs, schools, commerce and industry offer rich potential for a total environmental education program at these urban threshold parks, where personal participation can be related to natural diversity and man-made variety.

The Alvarado Recreation Unit seems particularly suited to fulfilling the promise of the "Urban Threshold Park Policy". Of course, the designation of land for regional park use near urban areas does not alone answer this need. As noted in the policy statement above, it is also important to provide interpretive and other programs as well as recreation, day camp, and staging facilities.

As noted in Section II Background, B Park Planning Zone, 4. Potential Future Recreation/Open Space Demand, there is a need to develop more outreach programs to respond to the needs of urban population groups.

B. DEVELOPMENT PROGRAM

1. Development Concept

This Land Use Development Plan minimizes development within the area of the present Wildcat Canyon Regional Park (WCRP) and concentrates any active recreation or intensive development in Alvarado Park which is to be added to WCRP. No development will occur at the south end of the Park near the Environmental Center (EEC)/Little Farm. Natural resources will be protected and, within the limitations of resource management policies, damaged areas will be restored.

There are several reasons why this planning direction has been selected for WCRP. First, most of Wildcat Canyon is in a near-natural state and with such a large area (2,600 acres), it is a valuable public recreation and visual resource in northern Alameda and Western Contra Costa Counties. Developed recreation in the area has been largely accommodated in Tilden Regional Park, adjacent to WCRP, or in adjacent urban areas.

As discussed in the Resource Analysis, Alvarado Park for many years has served some of the active recreation needs of the Richmond area. Its incorporation into the Regional Park and use for active recreational and staging continues a long tradition. The majority of Wildcat Canyon is left, then, as a natural complement to the more active recreation of Tilden and Alvarado Parks.

2. Land Use Zoning

As outlined in the District Master Plan (page 10), for planning and management reasons, Regional Parks are divided into "Recreation Units" and "Natural Areas". Major development is to take place in Recreation Units, while development is restricted in the Natural Areas.

This Land Use Development Plan provides planning and management policies specific to Wildcat Canyon Regional Park leaving details concerning proposed facilities to the design phases of a Capital Improvement Plan (District Master Plan page 28). In order to give an idea of the scale and type of facility proposed, however, a brief description is given with an estimated range of numbers representing the parking or person capacity. Only detailed design study can determine actual capacities and facilities.

a. Recreation Units

1) General Definition:

EBRPD MASTER PLAN (page 10)
Planning and Management Guidelines - Recreation Unit

1. Recreation Units should contain substantially all the recreational development and staging facilities that are to be provided within a Regional Park. Development may include a broad range of facilities such as campground, picnic areas, snack stands and concessions, outdoor education and interpretive facilities, equestrian facilities, beaches, bathhouses, turfed meadows, archery field and other regional outdoor recreational facilities.

2. All improvements should be designed, landscaped and managed to provide an appearance that harmonizes with the surrounding natural landscape. This may require extensive maintenance because of the relatively heavy use of Recreation Units.

Recreation Units require road access and relatively flat land in an attractive setting to allow for recreational activities and scenic enjoyment. When possible, active recreation areas are located near the periphery of the Park or are separated by topography from other Park areas and designed so that active and passive recreation do not conflict. The availability of utilities is also desirable in recreational development such as water to maintain green meadows. Operation of recreation units is more efficient if connected to sewer, phone, electric and water lines.

2) "Tilden" Nature Area/Environmental Education Center/ Little Farm.†

Previous master plans for Tilden Regional Park and subsequent development have created an approximately 75 acre recreation unit in the area surrounding the Environmental Education Center and the Little Farm. This unit also includes a portion of the "Tilden Nature Area". Existing facilities in this recreation unit include: Tennis Courts; Indian Camp I and Indian Camp II family picnic areas with parking for approximately 120 cars, irrigated turf fields and restrooms; three group camp areas: "Wildcat View Camp", "Blue Gum Camp" and "New Woodland Camp"; the Little Farm; the Environmental Education Center; Naturalist/Staff office, small maintenance yard and security residence at the EEC.

No further development will occur in this recreation unit. However, several resource management policies will affect this zone -- particularly policies regarding water management and sedimentation, feral animals and fire fuel management. As discussed else-where in this Land Use Development Plan, approximately 650 acres of Tilden Regional Park will be transferred to Wildcat Canyon Regional Park. This area includes the recreation unit discussed here.

Access to this recreation unit is from Canon Drive and the north-east corner of Berkeley and from Central Park Drive which connects to the south through Tilden Regional Park.

Recently Canon Drive was closed because of earth slides near the park boundary, requiring many vehicles to complete a 1.7 mile detour via Central Park Drive to reach the EEC area. While Central Park Drive was functioning and open to traffic, it also is vulnerable to closing from potential earth slides. Because of

† Although not within WCRP boundary, discussions of this area is included because of its relevance to WCRP's operations and/or impacts.

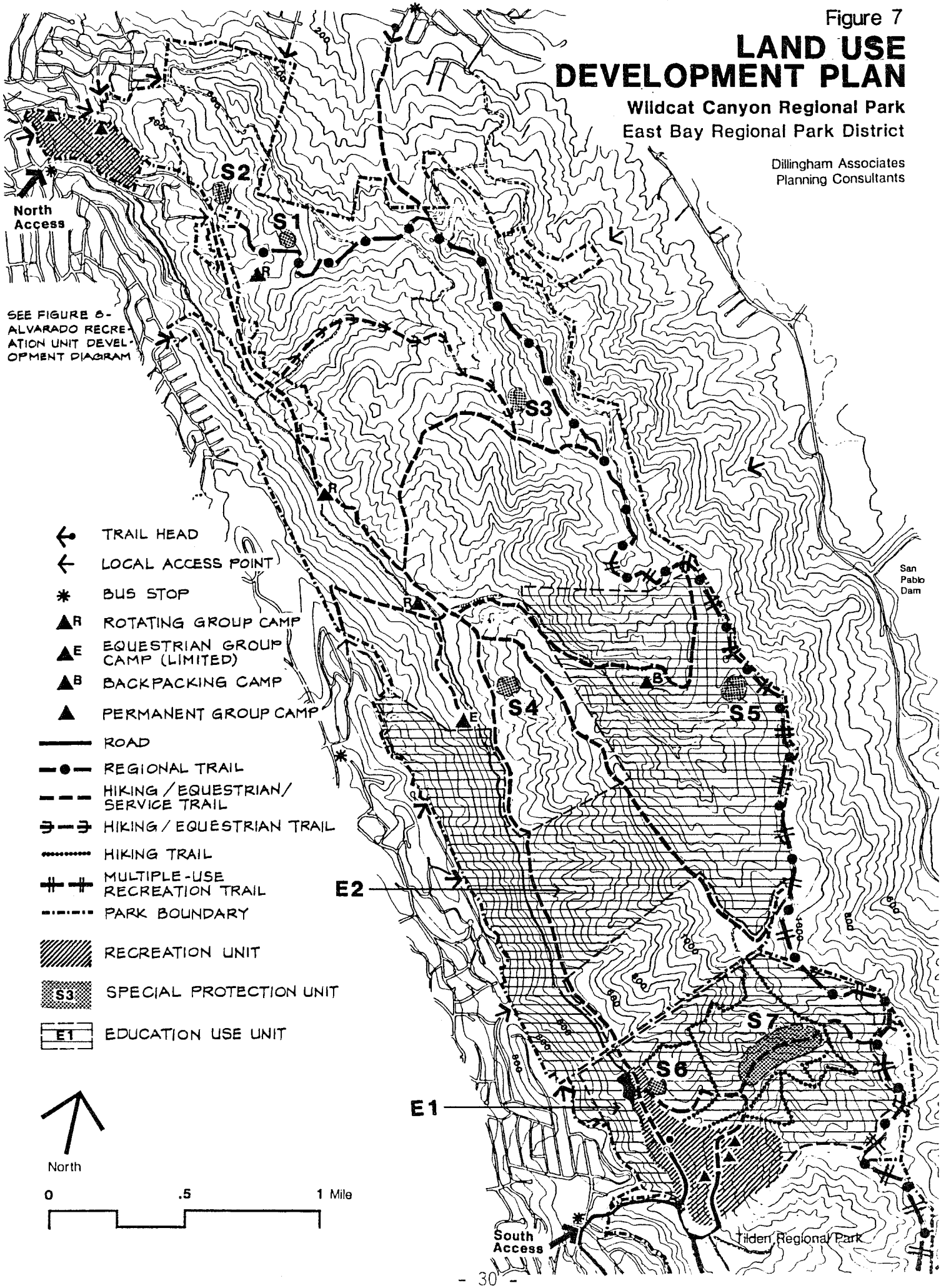
Figure 7

LAND USE DEVELOPMENT PLAN

Wildcat Canyon Regional Park

East Bay Regional Park District

Dillingham Associates
Planning Consultants



this vulnerability and the heavy costs of slide repair -- $300,000 for Canon Drive -- it is important to set a priority of access routes to the EEC area. A review of various factors has indicated that Canon Drive provides better access and, in the event of a choice, should be selected over Central Park Drive as a route to the EEC. If Central Park Drive were closed, due to slides, to through vehicular traffic, it should be maintained as a through pedestrian, bicycle and service route. This question will be addressed as part of the Tilden Regional Park Land Use Development Plan/E.I.R. The rationale for selection is:

a) Safety: No potential vehicular safety hazards have been identified along either Canon Drive or Central Park Drive. Although grades and curves are acceptable for vehicular use, considering the local terrain and the type of service the roadways provide, pedestrian access is not safely available on either route. Bicycle access at Canon Drive is steep and not desirable. Grades at Central Park Drive make it a better bicycle route, but not optimal.

b) Emergency Vehicle Access: Canon Drive is preferred as an emergency access route since it would save emergency vehicles several minutes travel time in responding to an incident.

c) Control of Park Access: Control of Park access is not expected to be significantly different between the alternative access routes.

d) Convenience to Park Users: The use of Central Park Drive would require a 1.7 mile detour for the great majority of Park users and service vehicles who would approach the Park from the Berkeley-Kensington area. This is a significant benefit of using Canon Drive as the access route.

e) Traffic Congestion: Some traffic congestion occurs on busy week-end days along Central Park Drive at the merry-go-round and entrance to Lake Anza. There is little congestion along Canon Drive.

3) Alvarado Recreation Unit

a) Concept

Several concepts underlie the use of Alvarado Park as a Recreation Unit for Wildcat Canyon Regional Park.

First, developed recreation use at Alvarado Park will act as a focus for intensive recreation activities at the north end of the Park, minimizing their need in other nearby areas. Support facilities such as parking, restrooms, picnic sites, etc. can be concentrated to service a number of areas efficiently. This kind of use, of course, continues the traditional, even historical, use pattern at Alvarado Park.

Second, Alvarado Park can serve as a transition zone between the adjacent urban areas on the one side, and the near-natural condition of Wildcat Canyon on the other. In this way Alvarado Park can buffer some of the recreation impact and protect the larger resource.

Third, with the role of the Alvarado Recreation Unit as an "Urban Threshold" Park, it can provide facilities for introductory experiences to regional parks and larger, natural areas. Introductory experiences can be encouraged and developed not only through supervised programs like interpretive talks, nature walks, and youth day camping, but also through facilities that accommodate both nature oriented activities such as hiking and more general recreation activities like group picnicking.

The fourth and final concept for Alvarado Park as a recreation unit is to provide a northern access point and staging area for the whole of Wildcat Canyon Regional Park.

b) Uses

The principal uses of Alvarado Park will continue to be environmental education, group and family picnicking, youth camping on a reservation basis and parking/staging for the north end of WCRP.

One of the major limitations to the use of the Alvarado Recreation Unit is the current lack of available parking.

Comparison of picnic and staging facilities at Alvarado Park with similar areas at other EBRPD Parks indicates that a ratio of parking to picnic tables falls within the range of 2/1 to 4/1. The following table gives a summary of some similar facilities within the EBRPD.

Table No. 4

Existing Parking/Picnic Ratios at Similar EBRPD Parks

Redwood Canyon (hiking, riding, picnicking)		
200 cars	65 tables	3:1
Briones North End		
170 cars	10 tables	17:1
Point Pinole (hiking, riding, fishing, picnicking)		
200 cars	64 tables	3:1
Garin (hiking, riding, picnicking, interpretive program)		
200 cars	70 tables	3:1
Kennedy Grove (picnicking only)		
160 cars	80 tables	2:1
Tilden EEC (hiking, picnicking, interpretive program)		
120 cars	20 tables	6:1

Following is a table of proposed uses and their approximate parking requirements:

Table No. 5

Proposed Alvarado Park Uses and Parking

Group Picnic: 10 tables (100 persons)	40 cars
Family Picnic: 25 tables (150 persons)	50 cars
Staging for hiking and equestrians	50 cars*
Day camp and youth camping (requirement not determined, but will not overlap schedules with picnic use)	
Total	140 cars

*Same size as former staging area at south end of Wildcat Canyon Parkway.

The initial parking area for picnic uses in Alvarado Park and staging for the whole park will be located on the existing parking area adjacent to the former pavilion. This existing parking, located in a flat area approximately two-thirds of an acre in size, will be designed to accommodate 60 cars. The parking area will also be available to everyday use including hiking and equestrian staging activities. If need warrants, overflow parking will be accommodated on the undamaged northernmost 1,400 feet of Wildcat Canyon Parkway. A kiosk and lockable control gate will be located at the entrance to both parking areas.

The second existing parking lot off Park Avenue is small and inefficient, difficult to control and has caused much over-use of adjacent areas. It will be closed, covered with soil and seeded for meadow.

A general circulation and use diagram for the Alvarado recreation unit is shown in Figure 8.

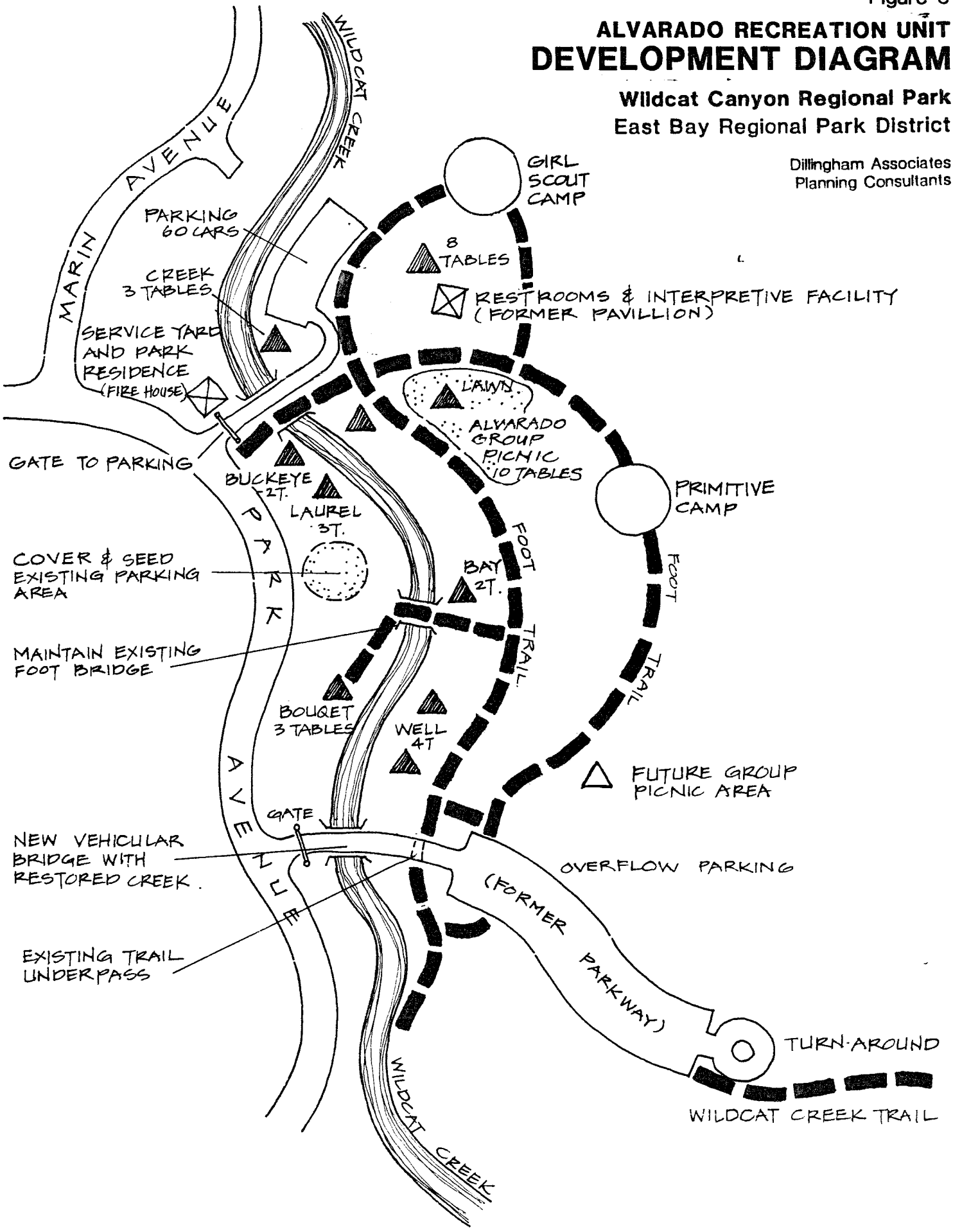
Many of the picnic areas at Alvarado Park are in need of renovation. Some, in fact, no longer have any tables or barbecue units. Picnic sites that are heavily worn or vulnerable to further environmental damage will be closed or substantially reduced in capacity. Picnic sites on top of, or directly adjacent to, archaeological remains will be closed and the artifacts protected. Group areas will be redesigned to make them usable by either groups or several separate families.

Figure 8

ALVARADO RECREATION UNIT
DEVELOPMENT DIAGRAM

Wildcat Canyon Regional Park
East Bay Regional Park District

Dillingham Associates
Planning Consultants



Group picnic facilities at the Alvarado picnic site (adjacent to the existing play area) will be renovated, and redesigned to fit more comfortably and informally onto the site. The adjacent restroom building (former ground floor of pavilion) will be renovated or replaced to provide sanitary and interpretive facilities. The bowl area uphill from the former pavilion building will be regraded, cleaned and renovated as a small amphitheater for 30 to 40 persons and will be available as part of the interpretive facilities. Use of the amphitheater will be by District Staff or on a reserved basis. The existing Girl Scout storage shed will be relocated to a less prominent location or removed from the site entirely. The building slab will remain on the site to protect existing archaeological remains.

A new group picnic area of eight to ten tables will be developed in the pine grove uphill and adjacent to the overflow parking area.

Day Camp and/or group camping on a supervised and reserved basis has occurred in the past at the Girl Scout Camp and Primitive Camp areas. These activities will continue and facilities improved for them. The Girl Scout Camp particularly will be improved by the addition of eating/cooking areas. Service access to North Arlington Boulevard will be improved but controlled by locked gate.

Subject to negotiations with the City of San Pablo, the existing fire house at the corner of McBryde and Park Avenues will be acquired and added to the Alvarado Park recreation unit. This building will serve as a security residence and service yard.

The streambed embankments of Wildcat Creek as it passes through Alvarado Park will be renovated by replanting. Existing rock work along the creek and throughout Alvarado Park will be retained and repaired as much as possible. Circulation along the streambed will be carefully controlled to prevent unwanted erosion of bank areas. Shallow stream areas adjacent to the former "Camps" Well, Shell and Creek will be dredged to provide water areas for children's wading.

The large earth fill and culverts constructed to extend Wildcat Canyon Parkway over Wildcat Creek, will be removed and the former original creekbed

will be restored to a natural-appearing state. Vehicular access to the overflow parking area will be maintained from Park Avenue by a two-lane bridge.

b. Natural Area

1. General Definition

As outlined by the District Master Plan, page 10:

Planning and Management Guidelines - Natural Areas

1. The purpose of this designation is to assure protection of natural features and values within a significant portion of a Regional Park.

2. The primary management objective is to allow only activities which are compatible with the natural environmental values while preserving, or restoring where necessary, scenic, near-natural landscape conditions.

3. Development should be limited primarily to making the natural area available for public enjoyment in a manner consistent with the preservation of natural resource values. Development may include such things as basic, but not elaborate, improvements necessary for camping and related outdoor activities, hiking, nature study and horseback riding.

4. A Natural Area may contain a Regional Preserve or a Trail Link, which should be planned and managed according to applicable guidelines. A Natural Area may contain peripheral access staging facilities for internal trails.

5. Forest and land management techniques such as tree cutting, controlled burning, reforestation and planting programs using indigenous plant materials, and livestock grazing may be used to preserve, maintain or recreate the desired environmental setting.

The Natural Area includes all other areas of the Parkland not designed as Recreation Units, and includes the Special Protection and Educational Use Units. The vast majority of Wildcat Canyon Regional Park will be a Natural Area -- over 2,470 acres or 95% -- where development is limited to preserve the Park's natural features and qualities. This area contains a variety of wildlife habitats, topography and scenic areas. The major features are the west slope of San Pablo Ridge, the east slope of the Berkeley Hills, Wildcat Creek, Havey and Belgum Canyons, and Lookout Ridge. This area will be free from intensive recreation activities, and other than several camp areas as described below, devoid of any development except trails for hiking, equestrian and service use.

2. Educational Use Units

These are areas within parklands identified by the District Educational Use Committee as appropriate for the study of natural, achaeologic, and historic features by University and College faculty students, high schools, and professional and amateur researchers. These areas were selected to provide a sample of each of the major ecological communities to be found within District lands will be available for study within designated units.

EBRPD MASTER PLAN
Educational Use Area Policy

1. The District will designate selected areas within various regional parklands as Educational Use Areas, where faculty or advanced students of universities and colleges and other research organizations within the District are encouraged to conduct ongoing or periodic studies, and where they can be assured of the long-term status of such use.

2. When the Land Use-Development Plan of the pertinent parkland is prepared, any such Educational Use Area in that parkland will be incorporated into the plan, insuring maintenance of the integrity of the natural resources for which the Use Area was established.

EBRPD MASTER PLAN
Educational Use Area Policy (continued)

3. Group use of such areas will be limited to educational purposes and may include projects by individuals or organizations representing university, college, high school, interested professionals, and amateur researchers, provided the ongoing research is not thereby disrupted.

4. Selection of and subsequent regulation of uses at Educational Use Areas will be with the advice of an advisory committee whose members represent university, college faculty and others appointed by the Board of Directors. Research projects will be focused on field studies of geological or bio-ecological features which the East Bay Regional Parklands provide in greater degree of accessibility than most other properties in the region. It is contemplated that sample areas of each of the major ecological communities to be found in the District lands will comprise most of these Use Areas.

5. Use of Educational Use Areas for research or group education will be by permit through the General Manager. In each Educational Use Area this may involve strict limitations on the alteration, disturbance, or removal of plants, animals, or any other natural feature that is allowed during such use. (page 34)

The only Educational Use Areas in WCRP are:

E-1 The "Tilden" Nature Area is designated an Educational Use Unit because of its role as an adjunct to the EEC for nature interpretive programs. In addition, the eucalyptus grove along San Pablo Ridge at the eastern boundary of the E-1 unit is included because of its isolated location along a ridge covered mostly by grassland with some brush. This grove has long been noted for being rich in wildlife. †

† Although not within WCRP boundary, discussions of this area is included because of its relevance to WCRP's operations and/or impacts.

E-2 This area of approximately 830 acres (shown on figure 7), is designated an Educational Use Unit because its vegetation types are among those of widest occurrence in the Berkeley Hills area and it is important to set aside some portion of each type where long-term studies can be carried out with some assurance that park management practices will not alter the ecological communities significantly.

3. Special Protection Units

These include any area within a parkland containing: Outstanding natural features; rare or endangered plant and animal species, and their supporting ecosystems; selected samples of each plant and animal community occurring naturally in the District; significant geologic, topographic, hydrologic or scenic features; archaeological sites; historical structures; or streams shown as a blue-line on USGS maps and other designated water courses, which, in the context of all District resources, warrant special protection management policies.

EBRPD MASTER PLAN
Environmental Preservation Zones

There may be areas within all parkland classifications which contain outstanding natural features, rare or endangered plant and animal species and their supporting ecosystem, significant geological, topographical features or have structures of historical significance.

Because of the unique and potentially fragile nature of these areas, Special Protective Zones shall be identified in the Resource Analysis and designated in the Land Use-Development Plans for each parkland. The primary objective of these Special Protection Zones is the preservation and enhancement of significant resources. Development within the Special Protection Zone shall be held to the minimum required for public safety protection and enhancement of the resource. Detailed restrictions of each Special Protective Zone shall be included within the Land Use-Development Plan of each park. Prior to completion of the prescribed planning process, Enviromental Preservation Zones may be designated by the Board within benefit of a completed Resource Analysis or Land Use-Development Plan to protect sensitive areas. (page 33)

A number of areas have been identified for "special protection" without a clear indication of how habitat management should differ from the management of other natural areas in the parks. Areas which provide habitat for plants or animals which have (or are likely to have) protection under State and/or federal endangered species laws, will be managed to preserve or increase that habitat value. Other areas which have been identified for "special protection" will be managed as part of the Natural Unit under the management practices of the Natural Resources Management Plan. See Figure 9.

The following Special Protection Units have been identified in the Wildcat Canyon/Tilden Resource Analysis and are designated here and on Figure 7, Land Use Development Plan.

S-1 through S-5

The Santa Cruz tarweed (Holocarpha macredenia), an annual herb whose range is now limited to Contra Costa, Marin, Monterey and Santa Cruz Counties. This plant has been introduced in eight separate localities in areas of moderate grazing pressure. It has survived and is successfully reproducing in Wildcat Park. This officially protected plant has been classified as endangered under the California Native Plant Protection Act. Special management required for this plant include monitoring by staff, continued cattle grazing and removal of any invading thistles and shrubs.

S-6 †

Habitat of Oakland mariposa (Calochortus umbellatus); a jeopardized plant, listed as rare by the California Native Plant Society. This plant has not received official protection under State or federal law. Special management required for this plant is occasional removal of forest litter, and/or thatch and invading brush.

S-7 †

This unit provides habitat which appears suitable for the Alameda striped racer (snake) (Masticophus lateralis euryxanthus). Prescribed burning is to be carried out only during the fall when the animals appear to be less active. Thus, they are more likely to be in an underground burrow and survive a fire.

† Although not within WCRP boundary, discussions of this area is included because of its relevance to WCRP's operations and/or impacts.

The following areas, formerly identified Special Protection Units, have been designated for appropriate management under resource management policies affecting the natural area.

a) Habitats of field iris (Iris longipetala).

b) Riparian vegetation zone within Havey Canyon.

c) Alkaline marsh in the lower area of Laurel Canyon. †

d) Wilson's Warbler habitat on slopes west of the Environmental Education Center. †

e) Rotary Peace Grove of giant sequoia. †

4. Camping

There will be five different types of camping and camp sites at Wildcat Canyon:

a) Youth group camping at a permanent camp in the Alvarado recreation unit;

b) Rotational group camps at one of a series of camps within the natural area;

c) An equestrian camp at a specific designated site for the major group rides;

d) "Mystery Camps", undesignated areas to be used only under the direction of District Staff; and

e) Back Packing Camp, for back packers, as an adjunct to the National Skyline Recreation Trail.

Family or individual camping will only be allowed at the backpacking camp. All other camps will be only for group use, on a reserved basis. Camp fires will be restricted to designated camp areas within the Alvarado or "Tilden" Nature Area Recreation Units.

a) Permanent group camp sites at Alvarado Recreation are discussed under Section III, B, 2, a, 3) "Alvarado Recreation Unit".

b) Rotational Camp Sites: Several sites are designated to be used on a rotating and reserved basis by groups. Only one site will be designated for use at a given

† Although not within WCRP boundary, discussions of this area is included because of its relevance to WCRP's operations and/or impacts.

time. When camping use has impacted that site (as monitored by District staff), facilities and activities will be relocated to a different designated area and the previous area renovated by planting, etc. and allowed to recuperate. The appropriate level of use at each site will be an operational decision by Park Staff based on the general principals of prevention of site over-use and resource protection. Consultation on this issue may be referred to the EBRPD/Richmond Liaison Committee. Three sites are recommended for rotating designation: The flat area at the foot of Rifle Range Road; the northernmost of the old day camps just south of the end of the former Parkway (called "Laurel Grove"); and the Belgum Sanitarium site. Facilities at these rotating camps will be entirely portable: Tables and sanitary facilities. No fires or fire rings will be permitted.

c) Equestrian Camp: The location for this camp will be the old Fowler Barn site, just west of Wildcat Creek and south of the foot of Rifle Range Road. It will be used only by reservation by equestrian groups for overnight camping during trail rides. All facilities, will be temporary/portable and brought in and out by the users or arranged by reservation. No fires or fire rings will be permitted.

d) "Mystery Camps": These camps are for use by small groups, on a one night basis, under the supervision of District Staff. Sites are not designated but selected by the Staff for a specific time and group. All signs of camping and use are to be cleaned-up and packed-out.

e) Back Packing Camp: This camp is for use by 10-12 back packers or a smaller group of equestrians. This site forms a beginning or ending overnight point on the Skyline Regional Trail. It will be located on a rotating basis within the same general area of Havey Canyon. Water facilities will remain fixed but camp areas may be moved if over-use warrants, as discussed for "Rotational Camp Sites," above. Portable sanitary facilities will also be available. No fires or fire rings are permitted. A small group of horses can be tethered nearby as indicated by a hitching bar and signing.

5. Trails

A major recreational use of the Park has been, and is expected to continue to be, hiking and riding on the extensive trail system (approximately 14 miles). This Plan maintains the basic system, however, several short new trails will be added to connect different park areas and make the system more complete.

Hiking/Riding/Service Trails

The existing hiking/riding/service trails will continue to be the major element of the WCRP trail system. All existing trails will remain. See Figure 7 for locations. New trails to be constructed are:

°Extension of Wildcat Creek Trail: Along the roadway of the former Wildcat Canyon Parkway. Existing AC pavement will be removed and slide areas restored to roughly even grades. Where wet areas occur, minor drainage structures such as catch basins and culverts will carry water away. Concentrated drain water will be carried to natural drainage channels and treated with an energy dissipator such as rip-rap. Graded trail widths greater than 12' will be scarified and seeded with native plants. The existing parking lot will be removed and the site returned to a level but "natural-appearing" grassland. This site is designated for an informal equestrian riding area. No barriers or other facilities are planned for this activity.

°Belgum Sanitarium Trail: Following an existing dirt track, from the former Parkway near its intersection with Park Avenue, through the Belgum Sanitarium site, to the ridge area south of the Johnson property. The purpose of this trail is to extend the National Skyline Recreation Trail along the ridge from its present alignment in Havey Canyon. Hikers and equestrians will be able to continue from the ridge through the Belgum Sanitarium site, along the former Parkway and conclude at the staging area at the south end of the Alvarado recreation unit. A second purpose for the trail is to provide a more direct link for service and emergency vehicles from the Alvarado recreation unit to the ridge and Nimitz Way. In order to improve access to the ridge of the Taylor/McCosker parcel, a service easement through the Johnson property will be acquired.

Several 'volunteer' trails at the crest or down the sides of the hills along the Park's west side have been used informally by neighbors. As use and volume warrant, the District may assume greater maintenance of these trails. In the interim, potential erosion and other soil problems will be monitored and repaired if necessary.

The majority of trails used by hikers and equestrians are dirt roadways suitable for service and fire vehicles. These trails generally run through grassland or shrub areas, while a few are within woodland areas. Because of the necessity of providing service and fire protection, these trails predominate through the park and receive first maintenance priorities over narrow trails. Fire protection

in the park is provided by EBRPD, and the Richmond Fire Department. A minimum road width of 10' is required on straight, flat runs, 12' on a straight but steep side hill situation, with wider areas needed at curves.

Hiking/Riding and Hiking Only Trails

Some trails in WCRP are designated for hiking/riding or hiking only, where steep terrain is encountered. They are to be maintained at a maximum 4' width and minimum 18" with hand labor and small equipment.

Paved/Bicycle/Service Trails

Nimitz way will be maintained as the only paved trail in WCRP.

Regional Trails

EBRPD MASTER PLAN
Trail Policy

The District, in coordination with other governmental agencies in the two counties, will acquire, develop and operate a Regional Trail System with the overall objective of providing a comprehensive system of trails through and connecting its parklands with each other and with other trail systems as well as the urban communities. To this end, the Two-County Regional Trail Plan adopted by the District June 20, 1972, and as amended on October 5, 1976, is hereby amended and is found in this revised Master Plan on page 20. (Page 32)

A major trail running through the length of the park is identified on the Plan as the East Bay Skyline National Recreation Trail, and includes Nimitz Way, San Pablo Ridge Trail, the Belgum Sanitarium Trail (discussed above) and the Wildcat Creek Trail (former Parkway). This relocates the present alignment from the Havey Canyon Trail to continue more of the trail further along San Pablo Ridge. See Figure 7.

In the District Master Plan (page 20), a future regional trail connection is indicated along Wildcat Creek from the north end of Wildcat Canyon Regional Park to the area of the Bay shoreline and Point Pinole. Other trail connections may be available in the future to connect to nearby regional open space such as Kennedy Grove Recreation Area, Briones Regional Park, El Sobrante Ridge and Point Pinole Regional Park.

6. Local Access Points and Gates

Additional local access points with no parking facilities are available for local residents to walk, jog or ride into the Park (and for park vehicles). These entrances are listed in Section II, B, 2.

C. FUNDING AND SCHEDULES

Implementation of this plan is expected to proceed in phases, some of which may not be undertaken for many years. This plan is long-range in nature and user demand must increase in some cases before development will be budgeted. Renovation of the Alvarado recreation unit has a current construction cost estimate of over $500,000. This estimate does not include construction of a new vehicular bridge over Wildcat Creek which is estimated at $250,000 to $300,000. Upon the adoption of this plan and in coordination with a Capital Improvement Plan, funds may be sought to carry out other portions of the plan. However, devel-opment funds for WCRP must be balanced against the other parks and priorities of the Park District.

D. PLAN ADMINISTRATION AND IMPLEMENTATION

Upon adoption by the Board of Directors, this Plan shall be implemented under the direction of the East Bay Regional Park District General Manager's office. In areas where land ownership or use permits are incomplete, purchase, dedication, or agreements shall be administered by the Land Acquisition Department. Design, development, working drawings, permits, environmental review, and contract administration shall be the responsibility of the Planning and Design Department. Questions regarding plan implementation, capital improvement projects or changes to the document will be discussed with park staff. In addition, capital improvement plans will be reviewed by the EBRPD Operations Committee (who will invite directors, whose wards include Wildcat Canyon) and the EBRPD/City of Richmond Liaison Committee.

The Park Supervisor is responsible for the daily supervision of Wildcat Canyon and is therefore aware of its resource management needs. All projects must be coordinated with the park Supervisor. An open communication will be maintained between specialists, land department, planning and design department, and public interest groups. The Park Supervisor will take counsel with these groups and determine long-term management strategies and short-term assistance programs. To facilitate proper resource protection, the Park Supervisor will coordinate regular reviews of the status of Wildcat Canyon's environmental quality with the appropriate personnel.

The Park Supervisor is responsible for seeing that maintenance projects are consistent with the adopted Plan. Any questions regarding this consistency shall be discussed with the Chief of Planning and Design. Maintenance work on grading, drainage, roads, structures, fencing, pond, creek or spring work and work in special protection units, etc., will be performed under direction of the appropriate specialist, such as Engineer, Water or Land Management or Grazing Specialist, Resource Analyst, and Environmental Coordinator. Any maintenance work involving design or layout changes shall be approved by the Planning and Design Department.

Maintenance of the existing and proposed facilities shall be by the WCRP crews and special District crews, and volunteer groups (such as the California Conservation Corps), and be under the supervision of the Park Supervisor and Zone Manager. This plan includes one major maintenance addition to the Park -- Alvarado Park with Wildcat Canyon Parkway.

Additional staffing for the Alvarado recreation unit and northern WCRP will be needed. Staffing levels will be commensurate with program levels and improvement projects. A seasonal public safety officer will be added if necessary or a change in assignment will be made to provide appropriate security services to the north end of the Park. Interpretive programs will be staffed from the Environmental Eduction Center in Tilden Regional Park.

Reservations shall be through the EBRPD Reservations Department. Special Interest Recreation license agreements, grazing leases, concession agreements and security residence agreements shall be negotiated and managed by the Revenue Operations Branch of the Parks and Interpretation Department.

The progress of the implementation of the Plan shall be reviewed annually as part of the Coaching Plan of the Park Supervisor and crew. The Chief of Planning and Design shall establish a priority order for development of the proposed facilities requiring capital expenditure, and shall also annually review the Plan implementation and establish capital projects utilizing any development funds that may become available. Inventory of Park resources and facilities shall be maintained by the Planning and Design Department in cooperation with other departments.

E. REVISIONS TO THE PLAN

1. Amendments to Plan/EIR and Major Park Developments

The Land Use-Development Plan will be amended as conditions change and as needed. These amendments will be developed by the

EBRPD Planning and Design Department and presented to the EBRPD Board for adoption. Amended Plans will have the appropriate CEQA document, as determined by the Environmental Coordinator, and will be adopted by Board resolution.

2. Corrections and Minor Park Development

Corrections to this document or minor Park Development not on the Plan but consistent with its general intent that are identified by the Park crew or others, shall be discussed with the Planning and Design Department. A written letter to the file stating the changes and signed by the Chief of Planning and Design shall be filed with the originals of the Plan/E.I.R. for future reference.

Public suggestions for changes to the Wildcat Canyon Regional Park Land Use-Development Plan shall be directed to the Assistant General Manager and he shall assign action to the appropriate department, if necessary. These suggestions shall be filed with the LUDP originals for future reference.

IV. NATURAL RESOURCES MANAGEMENT PLAN

IV. NATURAL RESOURCES MANAGEMENT PLAN

A. SUMMARY

The following outline summarizes major actions contained in the following Natural Resources Management Plan. A listing of further studies to be made follows the summary.

General: Use levels will be monitored in the park relative to resource protection.

1. Earth Slides:

   Earth slides cannot be easily predicted, nor economically prevented. Management policies are aimed at improving post-slide conditions.

   a. Minimize construction activities in slide areas.

   b. Divert runoff water from flowing over slides.

   c. Minimize damage to constructed improvements by avoiding development in the path of existing or potential slides and, in the case of unavoidable construction such as trails and roads, anticipate continued sliding.

2. Soil Erosion and Sedimentation:

   a. Seed earth slides and other bare areas.

   b. Limit wet season construction.

   c. Maintain drainage and erosion control devices.

   d. Construct a fence line to restrict cattle from the Wildcat Creek Trail.

3. Water Resources:

   a. Limit access to riparian zones, especially cattle access, through fencing (2.d. above).

   b. Correct heavy erosion on the slope west of Jewel Lake and resulting sedimentation of the lake. †

   c. Dredge 7,000 to 10,000 cubic yards of sediment from Jewel Lake by suction dredging at a cost of $50,000 to $60,000. Spoils will be deposited on-site. †

   d. Improve fish habitat.

† Although not within WCRP boundary, discussions of this area is included because of its relevance to WCRP's operations and/or impacts.

4. Vegetation:

   a. Maintain grassland as the dominant cover of the Park through cattle grazing.

   b. Continue existing control programs on artichoke thistle and purple star thistle.

   c. Take no action on brush management and fuel break development until:

      1) Data is available on slope stability from the Seidleman Study; and

      2) Temperature, humidity and fuel moisture data is collected and compared to information from previous fire sites in the District.

      3) Required CEQA process is fulfilled.

   d. Take no action on Eucalyptus management until fuel moisture, humidity and temperature studies are carried out. †

5. Wildlife:

   Feral cats and/or other feral animals will be controlled where they conflict with other park uses by trapping and surrender to an animal control officer.

6. Future Studies to be Carried Out:

   a. Prepare a long-range water management plan to study the Tilden/Wildcat Canyon Park section of Wildcat Creek watershed and it's problems associated with sedimentation and chemical water quality as well as fish planting and the management of Lake Anza and Jewel Lake. This study will be executed as part of the LUDP for Tilden Regional Park.

   b. Prepare a long-range grazing management program to study the effects on WCRP of seasonal rotation of cattle, pasture deferment, and soil management as well as the relationship, if any, of pest plant species and grazing. This program will be developed by the District Grazing Manager and the WCRP Supervisor.

   c. Monitoring of fuel moisture content of brush and Eucalyptus at the Park and at other previous fire sites in the District. This work will be carried out by the District Fire Department.

† Although not within WCRP boundary, discussions of this area is included because of its relevance to WCRP's operations and/or impacts.

Temperature and humidity monitoring studies at the EEC and comparison of this data with other previous fire sites in the District. This work will be carried out by the District Fire Department and the Staff of the EEC.

d. Prepare an environmental review document to assess the environmental impacts caused by fuel break recommendatiosn following from the Seidleman Report on slope stabiity and vegetation in portions of Wildcat Canyon Regional Park (WCRP).

e. District staff, with the review of the Board's Operations Committee, will monitor the following plan elements to confirm need, demand and/or impacts:

1) A potential hiking/equestrian trail in Belgum Canyon.

2) Parking at Alvarado Park and at the overflow parking area on the former Parkway.

3) The backpacking camp in Havey Canyon.

f. During the future planning process for Tilden Regional Park the boundary by the Nature Area will be re-evaluated.

g. Assessment of users versus impacts will be monitored to establish a carrying capacity for the park and its components.

B. GENERAL

The purpose of the Natural Resources Management Plan is to outline District objectives regarding natural resources and identify specific policies to meet those objectives. Resource issues that are the subject of existing District policy such as pest management or protection of endangered species are included in abbreviated form with a reference to the appropriate policy and explanation. Further detail on the resources can be found in the "Wildcat Canyon/Tilden Regional Parks Resource Analysis".

Guiding District Policy on Resource Management is found on page 34 of the District Master Plan.

1. The District's Land Resource Policies will provide for grazing to minimize brush encroachment and/or to reduce fuel for fire for the purposes of maintaining a healthy grassland in parkland areas where grassland is part of land use development. The District will adhere to the highest standards of grazing management and soil and water conservation.

2. Control of non-natural pest plan species (example, artichoke and star thistle) is necessary from time to time. The District shall consider the effect on people, the surrounding environment and elements of the natural community in determining the method or methods to be used in such control.

3. Control of natural plants and animals (examples, baccharis and ground squirrels) is necessary from time to time. The District shall consider the effect on people, the surrounding environment and elements of the natural community and neighboring landowners in determining both the element of control and the method or methods to be used in such control.

4. Research and experimentation for the management of the District's land resource (example, regeneration of oak and other native woodlands and rare and endangered species of plants and animals) shall be undertaken as time and resources are available.

Resource management must be fit to the type of resource and area. Techniques that are suited to recreation units, for example, may not be appropriate in Special Protection Units. For the "natural area" at WCRP, which is 95% of the Park, the following Guideline seems to summarize the purpose and limits of resource management programs:

> Forest and land management techniques such as tree cutting, controlled burning, reforestation and planting programs using indigenous plant materials, and livestock grazing may be used to preserve, maintain or recreate the desired environmental setting. (District Master Plan pg. 10)

Besides the goals of this plan and general District policies on resource management, the specific objectives of Wildcat Canyon Regional Park are:

1. To provide a setting for outdoor recreation experiences within the limits of District policy -- hiking, horseback riding, picnic, nature study, camping.

2. To preserve and enhance the significant natural resources of the Park, particularly vegetation, water resources, archaeological sites and wildlife habitat, where feasible.

3. To minimize hazards to users, neighbors and facilities from unstable slope areas, and heavy fire fuel loading.

C. GEOTECHNICAL/SOILS

1. Seismic Hazards

Objectives

°Minimize the risk of injury or damage from potential seismic activity.

Policies

°Review the structural integrity of all structures relative to seismic activity, particularly structures such as bridges and Jewel Lake dam that occur on Wildcat Creek and straddle the Wildcat Fault. Make repairs or replacements as warranted.

°Provide flexible connections for all utilities crossing faults in order to minimize potential rupture in the event of an earthquake.

2. Earth Slides and Unstable Slopes

Objectives

°To minimize risks of creating new slides and reactivating existing slides.

°To minimize risk to park users.

°To minimize risk to land parcels downslope from park lands.

°To minimize damage to park resources.

°To minimize damage and expense to park improvements and facilities.

°To use earth slides for their interpretive potential.

Policies

°The District will minimize park uses or construction activities, particularly earth work, at the areas of existing slides or at areas of steep slopes, and at wet seasons of the year.

°The District will research and prepare material suitable for interpretation of earth slides to the public.

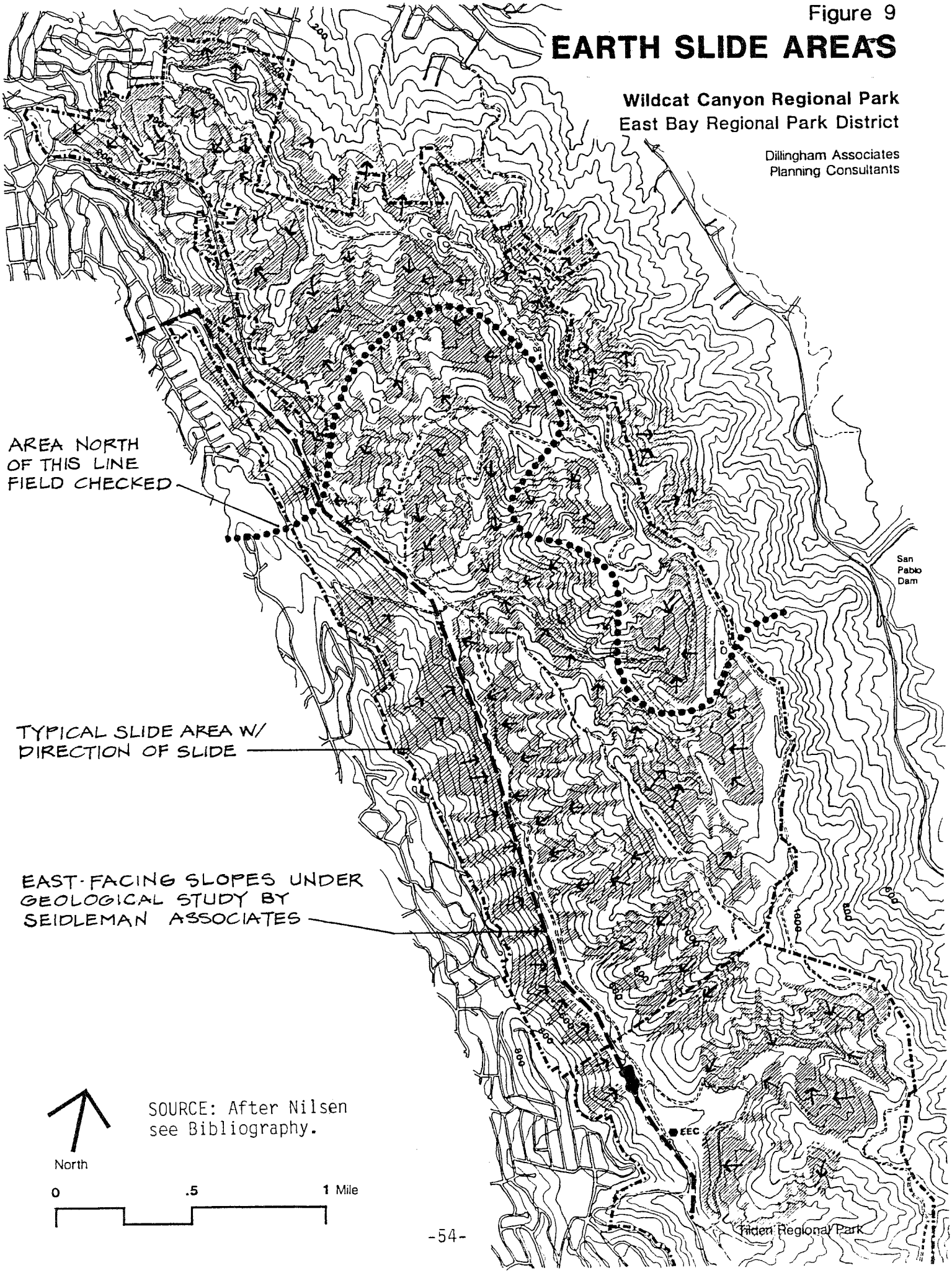
°The District will refer the District Educational Use Committee to the potential for research and study of earth slides.

Figure 9

EARTH SLIDE AREAS

Wildcat Canyon Regional Park
East Bay Regional Park District

Dillingham Associates
Planning Consultants



SOURCE: After Nilsen
see Bibliography.

°Upon the recommendation of a qualified geologist, the District will divert surface water away from the head or body of existing slides, or slide-prone areas.

°The District will monitor major slide areas on a regular basis, particularly during winter months when increased rainfall makes new slides more likely, in order to undertake any remedial action at the earliest possible time.

°The District will design improvements such as service roads which must cross slide areas to minimize damage from slides, minimize potential repairs and minimize repair costs.

°The District will seek agreements with adjacent property owners to avoid development which could be damaged by landslides crossing common property lines and to limit the District's liability in the case of such a slide.

Rationale

As discussed in the Resource Analysis and as confirmed in the field, see Figure 9, the soils and geology of many areas in WCRP are prone to sliding. the basic variables which combine to favor slides are: Bedrock; angle of slope; presence of previous slides; and rainfall quantity and intensity. In WCRP the first three variables are always present waiting for rainfall conditions to trigger further sliding. Although further studies could be conducted which would provide better definition and information, the situation below ground could not be completely understood. Even with further studies, there is no economical way to prevent or control further slides.

3. Soil Erosion and Sedimentation

Objectives

°To inhibit accelerated erosion and gullying to the maximum extent possible.

°To limit sediment from entering water courses, particularly Jewel Lake and Wildcat Creek.

°Minimize soil erosion along trails and service roads.

°Keep trails and service roads passable to recreation and staff use as much as possible throughout the year.

Policies

°The District will annually monitor eroded areas of the Park, particularly recent earth slides and edges of water courses, in

order to identify sources of sediment that may be contributing to stream and water course degradation.

°The District will seed bare areas where there is potential for substantial sediment run-off. In the case of earth slides, seeding will be carried out as quickly as possible after the occurrence and interim stabilization of the slide. Erosion prone areas will be seeded by hydroseeding, seed drilling or hand methods no later than October 1 prior to the winter rainy season. Seed mixes will require no irrigation, will naturally reseed themselves and will, if possible, be species that are already occurring in the site area. In areas where substantial continuing sediment loss is occurring, the use of sediment basins or traps may be appropriate. If heavy equipment is used for basin construction, care will be taken to avoid triggering new slides or making existing ones worse. Sediment basins or traps will be monitored frequently and cleaned out as necessary to retain their sediment capacity and functions.

°The District will require all construction activities with earthwork to have erosion control measures accomplished no later than October 1 of each year.

°The District will establish and maintain drainage and erosion-prevention devices along trails and service roads. Culverts, water bars and other devices will be placed to intercept run off water at intervals frequent enough to prevent erosion and direct it into established water courses or to energy dissipation devices such as rip-rap or brush piles and then to overland flow. A continuing commitment by District maintenance staff for training in erosion control and for continuing maintenance is necessary to assure the effectiveness of this policy. It may be appropriate to establish review/maintenance schedules for all trails and service roads on a monthly, or other time, basis.

°The District will monitor trail conditions during winter months, particularly Wildcat Creek Trail and Havey Canyon Trail, and close the trails to equestrian and/or hiker use if erosion and/or soil problems warrant.

°The District will limit the intrusion of cattle onto principal trails and service roads by the placement of salt-licks and water sources, by monitoring and control of cattle movements, and by fencing.

°The District will construct a new fence line restricting cattle from coming onto or crossing Wildcat Creek Trail. The fence line should be located at the top of road cuts where it is largely invisible to persons on the trail. Where up-slope

terrain comes down to the road at gullies and swales, wood stiles over the fence shall be placed to allow cross country hiking. Additional "wing" fences and a gate will be located at the upper or eastern end of the Havey Canyon riparian zone.

°The District will construct new cattle enclosure fences around springs, seeps and ponds which are being adversely affected by heavy cattle use.

Rationale

Substantial erosion is occurring along trails and maintenance roads. This condition is caused by a number of factors: Soils that are slow to drain; difficult access for maintenance during winter months; inconsistent maintenance of trail areas; and some over-running of trail areas by cattle. The two items that can be improved are trail maintenance and cattle control. Restricting cattle from principal trails and roadways is particularly important during winter months when soils can puddle and mud makes trails and roads impassable to vehicles and even foot traffic. Further reasons to restrict cattle from the Wildcat Creek Trail are that they sometimes intimidate park users and that there is only minor grazing area below the roadway.

D. WATER RESOURCES

1. Protection of Riparian Zones

Objectives

°Protect riparian zones from erosion and sedimentation.

°Protect riparian zones from incidental pollution.

°Protect riparian zones as wildlife habitat.

°Enhance fish population and habitat.

Policies

°The District will restrict cattle, horses and foot traffic from entering riparian zones in order to prevent unwanted soil erosion and resultant sedimentation. Regarding cattle, this policy will be carried out by placement of salt-licks and water sources, through monitoring and control of cattle movements and through fencing. Another method for reduction of cattle impact on riparian zones may involve seasonal rotation of cattle locations and herd size. This is discussed more fully under vegetation management policies. Probably equestrian and hiker impact on riparian areas has been slight, however, trails and use areas will be sited and developed to discourage access to streams

except in recreation units like Alvarado, at Jewel Lake, and in other easily controlled areas.

°The District will redesign and reconstruct the downstream end of the spillway at Jewel Lake in order to minimize erosion and undercutting at the spillway exit pool. †

°If previous fish planting indicates a potential for continued success, the District may carry out further fish planting of native steelhead with the cooperation of State Fish and Game and other interested parties.

2. Reduce Sedimentation Along Streams

This is covered under item C-3 "Soil Erosion and Sedimentation".

3. Water Quality

Objectives

°Maintain water quality in Wildcat Creek from various potential pollution sources.

Policies

°The District will prevent uncontrolled flow of water and/or other liquids into Wildcat Creek from potential pollution sources such as the Little Farm, urban storm drains or other chemical and/or sanitary sources. The District will control these flows through various means such as sumps, septic tanks, repair of existing drainage facilities as necessary to restrict these flows.

4. Reduce Sedimentation at Jewel Lake and from Upstream Sources

Objectives

°Control sediment deposition in Jewel Lake and other areas around the Environmental Education Center. †

Policies

°The District will contain sediment and control water coming into Jewel Lake along its west side. Locate any uncontrolled storm run-off from existing city streets. If possible, convey this to urban storm sewer systems. If not, convey it downslope in a non-eroding ditch or pipe to the level area west of the lake. Use an energy dissipation device. Recondition slope and water course areas that have been damaged by erosion through hand work (or machine if accessible) and seeding. Check-barriers and other erosion control devices may also be appropriate.

† Although not within WCRP boundary, discussions of this area is included because of its relevance to WCRP's operations and/or impacts.

°After execution of the policy above, the District will undertake the dredging of Jewel Lake. Because of the extended back-up of sediment upstream from Jewel Lake and west of the lake (outlined above), it is likely that sedimentation will recur rapidly, requiring a two stage process to clear the lake. Dredging will be carried out from time to time to assure a minimum pool of approximately six acre feet (9680 cubic yards). Continue to maintain the "duck pond" at the entrance to the EEC by yearly dredging. †

°The District will prepare a long range water management plan for the Wildcat Creek watershed. This plan will include all areas within Tilden Regional Park because they are integral with Wildcat Canyon in the watershed. Water management issues that will be studied include continuing sedimentation control at Jewel Lake, Alvarado Park and other sites; off-site (beyond Parklands) sources of run-off water; management of fertilizer, pesticide and other chemical use that may affect water quality; fish planting; and water management at Lake Anza and Jewel Lake.

The management plan will clearly identify the various District personnel and their mutual and interconnected responsibilities for this resource. An action plan and personnel tasks should be developed.

This plan will be carried out as part of the Tilden Regional Park Land Use Development Plan process.

°Fish populations and habitat in Wildcat Creek will be monitored by District resource specialists. Reasonable steps to assure their continued health will be carried out. If fish planting is successful on a permanent basis, a study will be made of the feasibility of a stream-ocean-stream migration by these steelhead.

Rationale re: Jewel Lake Sediment Control †

Jewel Lake was last dredged around 1967 with a depth of 12 to 15 feet. In the time since then, it has received a great deal of sediment from sources around its immediate watershed and from sources farther up Wildcat Creek. Because the upstream geology is volcanic in origin rather than sedimentary and softer as it surrounds Jewel Lake, it appears that the majority of sediment comes from areas near the lake.

In December 1967 and on August 4, 1978, July 1, 1982 and March 2, 1984, bathymetric surveys were performed by District Water Management staff on Jewel Lake. Comparative volumes of the lake were determined using a planimeter and standard methods of calculations.

† Although not within WCRP boundary, discussions of this area is included because of its relevance to WCRP's operations and/or impacts.

Volume of water in 12-67	11,700.0	cubic yards (approx.)
Volume of water on 8-4-78	8,209.6	cubic yards
	3,500.0	cubic yards of sedimentation since 12-67
Volume of water on 7-1-82	6,604.6	cubic yards
	1,605.0	cubic yards of sediment since 8-4-78
Volume of water on 3-2-84	3,206.0	cubic yards
	3,398.6	cubic yards of sediment since 7-1-82

The 8,500 cubic yards of sediment accumulated since 1967 has resulted in the depth of the lake decreasing from 12 feet in 1967 to 4 feet in 1984. It should be noted also that the above figures account only for sediment below water level and do not account for the significant amounts of sediment along the west side of the lake or trapped upstream and at the foot of Laurel Canyon.

A clear choice is available to the District. Either:

a. Jewel Lake will continue to accumulate sediment, and in a period of ten years or less, turn from a lake/pond into a flat area with a 'braided' stream in a riparian forest, similar to the area immediately upstream.

b. Dredge the sediment from Jewel Lake now and on a continuing basis to maintain the open water. If sediment control measures are successful, the life expectancy of dredging improvements can be extended. The rate of sedimentation, based on estimates over the years since the last dredging in 1967, has varied from approximately 300 cubic yards per year to about 1,700 cubic yards per year (1982-83). In order to return Jewel Lake to a water area of six acre feet (9,680 cubic yards) from its current reduced size of 2 acre feet (3,200 cubic yards), approximately 6,500 cubic yards of material would have to be dredged. As noted above, it is likely that some upstream sediment would wash down into the lake once it has been dredged, requiring an additional dredging of an undetermined amount, perhaps 3,500 cubic yards. The most economical and suitable method of dredging appears to be "suction dredging". Costs for such an operation are about $ 6.00 per cubic yard or around $60,000. for the operation. Dredge spoils would be disposed of on site in a nearby area, graded to blend into the adjacent

topography and seeded and planted for cover. The proposed spoils site, an area used in 1967, is a gently-sloping area above the Wildcat Creek Trail and about 2,000' north of Jewel Lake. There is no record of earth slides at the site or in the immediate vicinity. This site, with modifications, can provide a dewatering basin. Water and sediment would be pumped to this site from Jewel Lake. A second pump would return water to Jewel Lake, leaving sediment at the spoils site. Control of sediment-laden water overflowing the Jewel Lake spillway will be controlled during dredging operations by:

- °Dredgings in the summer when natural flows are dimished;
- °Drawing the water level in the Lake down several feet prior to dredging; and
- °Controlling water flowing out from Lake Anza, upstream.

This plan calls for the dredging of Jewel Lake. There are three reasons for this recommendation. First, lakes of this size are uncommon in the California landscape and Jewel Lake, thus, is scenic and interesting. It has been a part of Tilden Park for many years and it is a place that many park users value as beautiful and "natural" even though its origin is man-made. Second, Jewel Lake provides a resource for nature interpretation as part of the "Tilden Nature Area" and the Environmental Education Center. The board walk upstream from the lake is one of the most interesting short tours in the District. Third, Jewel Lake has acted as a sediment catchment basin reducing larger sediment loads from impacting areas downsteam along Wildcat Creek.

Jewel Lake represents the best location along the middle portion of Wildcat Creek for sediment retention. The area at the entrance to the Environmental Education Center has been used for about ten years as a small in-stream sediment basin -- "The Duck Pond". This has not proved satisfactory on several counts. First, the pond area is too small to trap much sediment and most sediment flows on into Jewel Lake and the marsh area immediately upstream. Second, this small pond requires frequent dredging to maintain its usefulness. The result is a park area of high visibility that is in a constant state of repair or construction. A third area for sediment retention has been proposed along Wildcat Creek between the Environmental Education Center (EEC) and the tennis courts. This site has good access for dredging and excavating equipment and is also a site that is no longer in a "near-natural" condition. However, this site is small and could not accommodate a basin of any significant size.

Second, and more importantly, the area is next to two heavily-used picnic areas (Indian Camp I and Indian Camp II). The creek zone here, for all its heavy use, is still a handsome adjunct to the picnic sites and one of the few areas where Wildcat Creek is visible to the public.

E. VEGETATION

1. Grasslands

Objectives

°Maintain large areas of WCRP in grassland.

°To maintain and foster those areas which are in perennial grassland.

°To control and eventually eliminate infestations of exotic or "weed" plant material such as artichoke thistle, and star thistle.

Policies

°The District will maintain grassland as the largest single vegetation cover within WCRP. This policy represents a continuation of existing conditions. The primary means of maintaining grassland and preventing succession to brushland will be cattle grazing.

°The District will manage grasslands to preserve and increase its habitat for native grasses and forbes.

°The District will prepare a Conservation Plan with the assistance of the U.S. Soil Conservation Service in order to plan long-range grazing management and to retain the optimum "carrying capacity" of the Park's grasslands while still permitting grazing to be continued in a manner that is economically viable. The Conservation Plan will assess the potential for seasonal rotation of cattle, pasture deferment and occasional pasture rest as well as grazing impact on soil management and the relationship, if any, between grazing and pest plant species. The timing and development of the Conservation Plan will be the responsibility of the District Grazing Manager and the WCRP Supervisor.

°The District will identify and monitor areas of perennial grassland in order to protect them and encourage their survival and spread. The management practices most suitable to their development will be taken into account in the Conservation Plan.

°The District will control artichoke thistle and purple star thistle along ridges by hand and mechanical removal in order to prevent extensive spread of seed into adjacent land.

The District will prepare a comprehensive artichoke thistle management program for WCRP to identify control need and methods for general parkland areas, to be implemented as resources are available. Preparation of the program will be the joint responsibility of the WCRP Supervisor, District Grazing Manager and IPM coordinator.

Rationale

As discussed in the "Wildcat Canyon/Tilden Regional Parks Resource Analysis" and in the "1982 Report of the Blue Ribbon Urban Interface Fire Prevention Committee", WCRP and adjacent residential areas form part of the urban-wildland interface, an area with a substantial potential for dangerous fire. This fire potential is based upon a series of conditions that, under certain circumstances, may contribute to a large or dangerous fire. One of these conditions is the easy availability and flammability of woody fuel. Woody materials are unavailable in grassland but increasingly available as grassland is invaded by brush and trees. One way to limit fuel availability and fire potential, therefore, is to maintain as much land as possible in grass rather than brush.

A second reason for maintaining large areas of WCRP in grass is to provide a better setting for recreation. Brush, the immediate alternative to grass, is thick and difficult to walk through. Although it provides good wildlife habitat, brush essentially prohibits most human use of an area.

District policy as expressed in "Vegetation Management - Pricipals and Policies for the East Bay Regional Park District (page 35) states:

> Vegetation management plans should recognize the desirability of the grassland vegetation type based on its natural and/or historic occurrence on certain sites, its suitability for active recreation, and its relatively low fire hazard; and should prescribe grassland as the final vegetation type where appropriate.

There are not many effective methods to maintain land in grass and inhibit the natural succession and invasion of grass by brush. In the "Fuel Break Management Plan" prepared for the District by Carol Rice of Wildland Resource Management, a series of fuel management techniques are outlined: Mechanical, grazing, chemical, hand labor, hay mowing, compatible land use and burning. Of these methods, the only ones that are economically feasible on a broad scale, environmentally sound, and

Figure 10

VEGETATION MANAGEMENT

The following Fire Fuel Management Zones have come from the 1982 Report of the Blue Ribbon Urban Interface Fire Prevention Committee. They represent current District policy regarding these areas. No actions will be taken at this time pending conclusion of the geological study of these areas by Paul Seidleman & Associates.

Fire Fuel Management Zones

1. Mature bay/oak forest. Sensitive area, to be maintained in natural condition. Any modificaiton for fire reduction purposes subject to further study. New fuelbreak okay in brush and broom areas below residences.

2. Steep rocky slope with brushland not found elsewhere in park - Dirca, Garrya, Mahonia. Sensitive area, to be maintained in natural condition. Any modificaiton for fire reduction purposes subject to further study.

3. New fuelbreak to be constructed between Rifle Range Road and Terrace Drive - an area dominated by coyote brush and broom, which was grassland in historical times. Fuel reduciton or modification is desirable.

4. Terrace Drive to Kensington School - rich north coastal shrub and woodland with many seeps and springs. Fire road perhaps okay - but landslide potential appears high. Sensitive area, to be maintained in natural condition. Any modification for fire reduction purposes subject to further study.

5. New fuelbreak to be constructed north of Kensington School to Grizzly Peak Blvd. (narrow strip south of Lake Drive below homes) (pending mositure study - as area is slight north slope). Fuel modification may be considered.

6. Slope above EEC - mature bay/oak forest and wookland scrub with very high resource and scenic values. Sensitive area, to be maintained in natural condition. Any modificaiton for fire reduciton purposes subject to further study. †

7. New fuelbreak to be constructed on slope above Cañon Dr. (south facing) to property line. Area of many exotics - eucalytus, broom - with native vegetation under stress. Conversion to grassland/woodland would be very beneficial. †

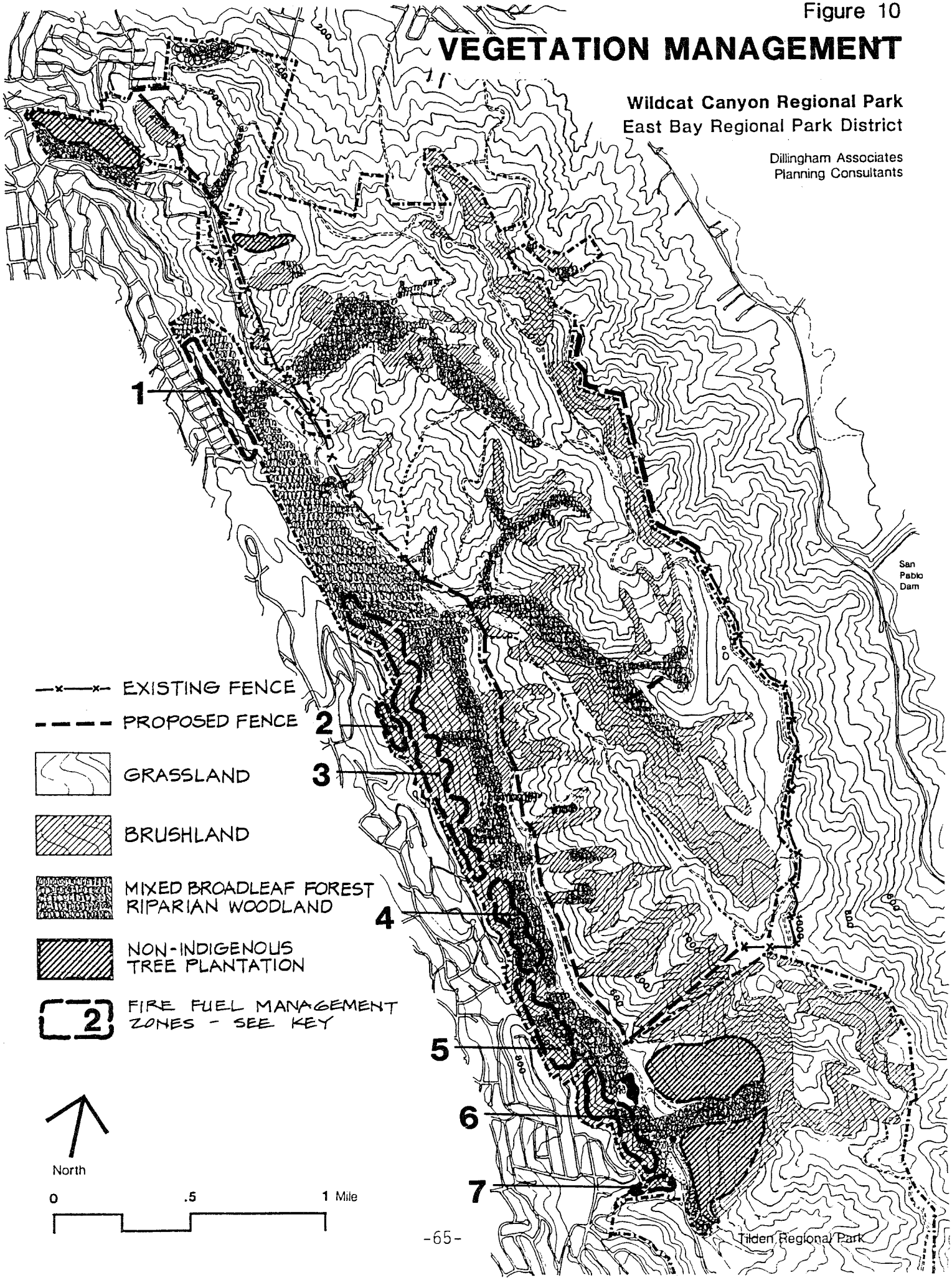
† Although not within WCRP boundary, discussions of this area is included because of its relevance to WCRP's operations and/or impacts.

Figure 10

VEGETATION MANAGEMENT

Wildcat Canyon Regional Park
East Bay Regional Park District

Dillingham Associates
Planning Consultants



appropriate to WCRP are grazing and prescribed burning. Prescribed burning is often discussed but infrequently used as a fuel management technique. The problems with prescribed burning are:

a. With any fire there is a risk of the fire becoming uncontrolled;

b. A large crew may be required to monitor and control burning; and

c. There is a very limited time during the winter months of the year when fuel is dry enough to burn but not so dry as to be dangerous.

In contrast, grazing is safe, it generates a profit rather than a cost and, once fencing is established, requires little overhead. The only major potential problem with grazing is accelerated soil erosion. There is no clearly established relationship between grazing and pest plant invasion. In addition, at WCRP grazing has been the traditional and historical use that has maintained grassland. In spite of these advantages, grazing does not maintain grassland indefinitely against brush succession. Therefore, prescribed burn is useful from time to time to control large masses of brush that are not vulnerable to grazing.

The intention of the Conservation Plan is to find an optimum balance between grazing and the condition of the grasslands and other vegetation resources. Wildcat Canyon has excellent soils for grassland production and for this reason and others outlined above, grazing is considered an important component of park land management. However, much concern has been expressed about the effects of year-long grazing -- degraded riparian environment and soil erosion. Thistle invasion is also considered by some to be a result of heavy grazing although thistle invasion is also occurring at Tilden Regional Park which has not been grazed in 40 years. Year-long grazing can also have a negative effect on perennial grass expansion when cattle eat the green perennial grass forage rather than dry annual grasses in the late spring and summer.

The possible advantages of a Conservation Plan are slowed thistle invasion, decreased grazing pressure on perennial grasses and riparian zones, and less grazing use of areas susceptible to erosion.

It is important that the Conservation Plan be implemented on a flexible schedule that works with the needs of the Park, the District and the economic and logistical realities of the cattle operator.

District policy on existing non-indigenous vegetation calls for their removal only when it is related to other valid management policies ("Vegetation Management - Principals and Policies for the East Bay Regional Park District" page 15). While the artichoke thistle and purple star thistle are considered pests and unsightly, their removal only on this basis is contrary to District policy. In circumstances where these pest species constitute a threat to surrounding agricultural land then removal is required. A hand removal operation has been carried out for purple star thistle in the Park and for artichoke thistle near the crest of San Pablo Ridge in order to minimize the risk of air borne seed blowing to adjacent land. Hand removal is a relatively expensive method of control considering the vast areas that have been invaded by Artichoke Thistle. Chemical methods would cost significantly less. Any program of control for these pest species should be reviewed with the District Integrated Pest Management Coordinator.

2. Brushlands

Objectives

°To maintain brushland areas in a way which reduces the potential for wildfires spreading from them into adjacent developed areas.

°Within the limits of the objective above, to maintain brushland and its natural successive vegetation along the park's western edge as a buffer between park and residential uses.

°To manage the brushland and its natural successive vegetation so that a rich wildlife habitat is maintained.

°To manage the brushland to prevent its uncontrolled spread and to allow cattle and hiker circulation.

°To control and eventually eliminate infestations of acacia, French and Scotch broom.

Policies

°The District will implement the findings and proposals of the 1982 Blue Ribbon Urban Interface Fire Prevention Committee in areas as outlined in their report and as shown on Figure 10 of this document. These proposals and fuel break areas shall be subject to the review and approval of geological field studies which are currently underway and further fuel flammability studies as outlined below.

°The District will conduct further investigations regarding the susceptibility of the brushland fuel to fire. These include:

a. Temperature and humidity monitoring studies to be carried out from instruments located at the Environmental Education Center beyond the Park's southern edge;

b. Monitoring of fuel moisture content at various locations within the brushland and eucalyptus forest and comparison of these figures with fuel moisture content at previous fire sites within the District such as Point Pinole and Anthony Chabot Regional Parks.

°If the studies outlined above indicate that fuel loadings are hazardous, the District will modify the vegetation pattern to reduce that hazard using one or several of the following methods:

a. Prescribed Burn: This is the preferred method for reasons of cost, visual appearance and ease of access. Prescribed burns shall be used in areas where there are no resources requiring special protection, and when the safety and suitability of a prescribed burn are specified by the District Fire Chief.

b. Mechanical Removal: This method shall be used when prescribed burn is not suitable and access for equipment is available.

c. Removal by Goats: This method shall be used in maintenance of cleared areas rather than clearing itself. Its applications are limited because of a need for fencing, lack of effectiveness in thick brush and goats' lack of appetite for common target plants.

d. Hand Removal: This method, the slowest and most expensive, shall be used in areas of difficult access, in areas requiring protection of special resources, and/or where prescribed burn is not suitable.

°Areas that may be cleared for fuel break, if approved by further studies outlined above, shall be subject to this plan's policies regarding soil erosion and sedimentation.

°The District will use prescribed burning and/or hand and mechanical means to limit brush spread in areas that are not vulnerable to hazardous earth slides in order to allow easier hiker and/or cattle circulation.

°When resources are available, the District will use mechanical and/or hand means to remove French broom, acacia and Scotch broom.

Rationale

The findings of the 1982 Blue Ribbon Urban Interface Fire Prevention Committee (1982 BRUIFPC) Report have shown the substantial danger to residential areas from wildfire in the District's parks. These factors include:

a. Relatively steep (20% - 60%) brush and eucalyptus covered slopes;

b. Heavy fuel loading in brushland areas from natural growth and a lack of recent fires or other agents to lessen fuel amounts;

c. A late summer weather pattern that brings occasional dry easterly winds -- a combination of low humidity, warm air temperature and wind direction that could easily spread a fire from park areas into residential zones;

d. Residential development adjacent to parks is difficult to service efficiently from fire departments;

e. Most homes and grounds are developed and maintained in a manner which makes them extremely flammable.

For all of these reasons it is critical that fire prevention measures outlined in the 1982 BRUIFPC Report be implemented at Wildcat Canyon Regional Park as it is in other similar District Parks. However, as discussed earlier, the soil areas in WCRP, including those proposed as fuel breaks in the 1982 BRUIFPC Report, are susceptible to earth slides. It is important then, that these areas and the east-facing slopes along the park's western interface with residential development, be reviewed by a geologist prior to fuel break construction. The purpose of such review is to determine the degree of susceptibility of the area to sliding and what result may be expected from vegetation removal or change. Vegetation is considered to reduce the risk of slides only within the upper five feet of earth. There is evidence, for example, at Alvarado Park, of previous earth slides that <u>may</u> have been stabilized by eucalyptus plantings.

Climate monitoring and fuel-moisture monitoring studies are important to complete in order to determine the brushland and eucalyptus forest's flammability. Current climate information is only available at the District Service Yard at Volmer Peak at the south end of Tilden Regional Park. Data at that location indicates a climate potential for wildfire. There is reason to believe, however, that a significant difference in temperature, humidity and flammability patterns may exist between Volmer Peak and the brushland and eucalyptus forests of Wildcat Canyon. Only climate monitoring at WCRP can determine if differences are significant enough to warrant changes in the fuel break plan.

Studies of fuel-moisture content are an additional method of determining the potential of any area for fire. Because fires have occurred at Anthony Chabot and Point Pinole Regional Parks, it is possible to compare fuel moisture content at those locations with that at Wildcat Canyon Regional Park and compare them to

see if there are significant differences. If differences are found, the fuel break plan might be modified. If no significant differences are found, and if geological recommendations permit, the measures in the fuel break plan will be carried out.

No method of clearing -- whether mechanical/hand labor, prescribed burn or other -- is recommended at this time. In making this decision, it is important to consider the exact area for removal, the degree of removal (whether thinning or clear), the proximity of residential structures, etc.

3. Mixed-Broadleaf Forest/Riparian Woodland

Objectives

°To maintain mixed-broadleaf forest as a vegetation type within the Park.

°To manage the mixed-broadleaf forest to optimize wildlife habitat.

°To manage mixed-broadleaf forest to minimize fire danger in applicable areas.

°To control and eventually eliminate infestations of French broom, Scotch broom, English ivy and German ivy.

Policies

°Permit brushland vegetation to follow its natural succession to mixed-broadleaf forest on east and north facing slopes in the park.

°To thin lower branches of trees in or below fuel break areas in order to minimize the danger of a ground fire spreading and becoming a crown fire.

°When resources are available, the District will use mechanical and hand removal to control French broom, Scotch broom, English ivy and German ivy.

4. Eucalyptus Groves

Objectives

°To establish and maintain conditions in all eucalyptus groves which prevent or minimize uncontrollable wildfires.

°To manage the eucalyptus groves in a cost-effective manner which maintains their wildlife habitat value.

°To plan and manage eucalyptus groves with the long-term goal of replacing them with indigenous vegetation.

Policies

°The District will carry out fuel moisture and climate monitoring studies outlined under the brushland section of this natural resources management plan.

°If fuel moisture and climate monitoring studies suggest that existing eucalyptus stands near the Environmental Education Center and at Alvarado recreation unit are susceptible to dangerous fire, the District will reduce the wildfire hazard as outlined under the brushland policies section of this report.

°The District will contain groves of eucalyptus to their present limits and prevent spread into adjacent areas of Laurel Canyon from the Nature Area grove, and from Alvarado into the former Taylor/McCosker parcel.

°The District will thin these eucalyptus groves by removal of trees to enhance their wildlife value and as an initial stage for replacement of these groves by indigenous plants. Mechanical and hand methods will be used. Debris disposal will be accomplished by a combination of chipping, stack and burning and removal in that order of preference.

Rationale

Basic discussion of vegetation management for fire prevention is discussed under brushland. Please refer to that section.

The Wildcat Canyon/Tilden Regional Parks Resource Analysis outlines the mechanical/hand labor option for debris removal:

> °In the eucalyptus forest areas, chainsaws or heavy equipment would be used to cut up the larger debris and hand labor and heavy equipment would be needed to carry the debris out. Regardless of the removal method, there would be several hundred tons of woody debris to be disposed of. Disposal options include stacking and burning, lopping and scattering on site, removal to a landfill site and chipping. If the debris were chipped, it could then be dried and used as a fuel, spread along trails and on erosion areas as a mulch, or composted (perhaps in combination with the sewage sludge disposal operation of a cooperating sewage treatment plant).

Hand labor/mechanical debris removal is selected as the best method for the two eucalyptus groves because of the inappropriateness of prescribed fire in these cases. The existing

grove at Alvarado Park is not thick and has moderately low amounts of debris on the ground. In addition it is directly below several homes. The risk of an uncontrollable fire make prescribed fire unsuitable. At the Tilden/Wildcat Nature Area the case is less clear. However, the area is a designated Education Use Zone with on-going nature interpretive and study functions. In addition, it contains three group camp areas. Prescribed fire would seem to be too indiscriminate in its clean-up. Hand labor and mechanical methods, while more expensive, seem most appropriate in this popular and visible area. †

5. Exotic Vegetation

Objective

°Exotic vegetation will be minimized and eliminated in the park within the limits of District vegetation management policy and as appropriate to active recreation and sound resource management.

Policies

°The District will maintain turf areas within recreation units as necessary for active recreation.

°The District will remove isolated examples of exotics if they present a danger of rapid invasion of native vegetation areas. Large areas of exotics, or exotics which will not spread rapidly, will not be removed except as necessary for other reasons.

°The Rotary Peace Grove, composed of Sequoiadendron giganteum, will have no additional new plantings. An alternate site for a grove to be composed of Coast Live Oaks (Quercus agrifolia) will be selected. †

6. Jeopardized Plants

Objective and Policy

°To manage natural resources in WCRP to maintain existing populations of protected and jeopardized plants. Translocation projects may be carried out to increase the range of these plants.

F. WILDLIFE

Objectives

°To provide habitat for indigenous animals.

† Although not within WCRP boundary, discussions of this area is included because of its relevance to WCRP's operations and/or impacts.

°To control feral cats and other animals which threaten indigenous wildlife and conflict with other park uses.

°To provide suitable population management in case the population of any mammal species declines significantly or rises to levels which result in damage to the Park's natural resources or conflicts with park use.

Policies

°The District will pursue vegetation management policies which encourage indigenous vegetation (see above) and will carry out appropriate wildlife habitat enhancement projects which have been scientifically demonstrated to be effective.

°The District staff will trap and remove untagged domestic dogs and feral domestic animals such as cats, ducks, geese and rabbits when their presence conflicts with native wildlife or existing recreational uses. Only live traps will be used for this purpose. Only District personnel who have been properly licensed to trap under the State Fish and Game Code will carry out such trapping. The park supervisor will assure that at least one licensed person is available to carry out the trapping in the Park. Trapped domestic animals will be surrendered to Contra Costa County Animal Control Officers.

°The District will retain the services of an individual qualified in wildlife management to evaluate the population levels of wildlife species in the District (including WCRP), and to recommend appropriate management practices in cases where the population appears to have declined to levels approaching extirpation or which appears to have risen to levels which result in damage act to spread disease to park users or to native wildlife. This may also occur when the feeding and other activities of the feral domestic animals act to reduce the suitability of the park for native animals.

Rationale

The policy to trap and remove untagged domestic dogs and feral domestic cats is recommended because it is the preferred procedure for managing feral animals on regional parklands and is the only Board-authorized procedure to date. The current District animal control policy retains the option of dispatching especially life-threatening animals on-site. The use of sworn officers or other District personnel who may in the future be so authorized, assures that any attempt to dispatch feral mammals in the park will not result in violations of the laws protecting dogs which have been properly tagged under State law.

G. CULTURAL RESOURCES

1. Archaeological Midden Material

Objectives

°To preserve archaeological resources found in the Alvarado Park area.

°To use the interpretive opportunity offered by archaeological sites when and if consistent with protection of these resources.

Policies

°Carefully remove existing picnic facilities, parking lots and other facilities located above or near midden material. Plant the exposed midden areas to hide midden material and stabilize slopes. Prevent any erosion from stream or run-off.

°Relocate trails and paths away from archaeological sites.

°Allow no visible identification of sites.

H. PUBLIC USE

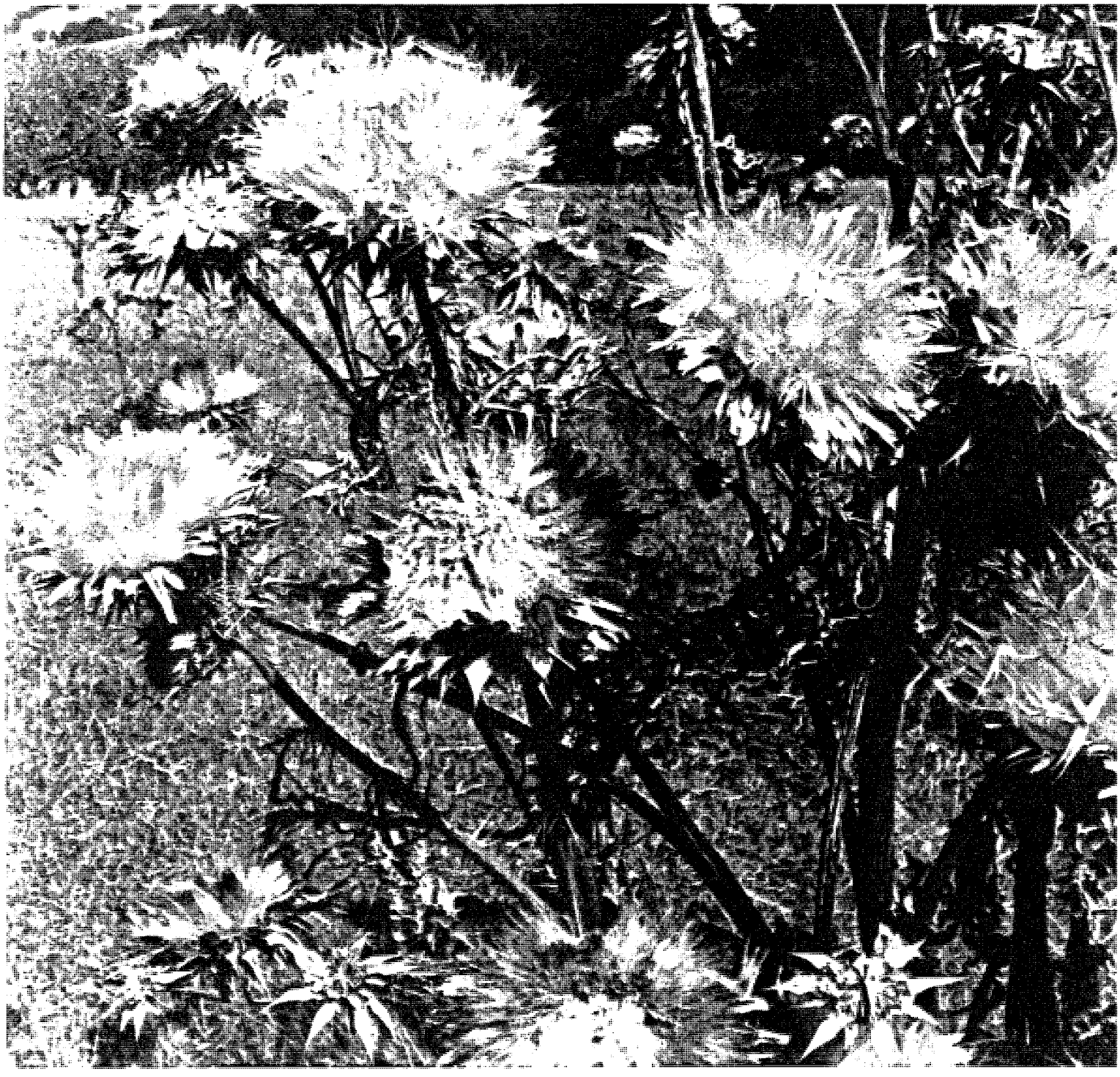
Objectives

°To provide a resource for dog owners to exercise their pets in a natural setting.

Policy

To continue a policy of permitting dogs without leashes in the Park except in the Tilden/Wildcat Nature Area and the recreation units. Dogs must be kept under the control of owners.

V. ENVIRONMENTAL IMPACT REPORT



A. SUMMARY

The Project consists of a Land Use - Development Plan (LUDP) and a Natural Resources Management Plan (NRMP) for Wildcat Canyon Regional Park (WCRP).

The LUDP contains the following provisions:

- The inclusion of 42-acre Alvarado Park (which has been operated by the City of Richmond Parks and Recreation Department to the present time) as part of WCRP;
- The retention of some of the existing facilities in Alvarado Park (e.g. group and family picnic areas, youth camp area, and parking/staging area) in a modified and rehabilitated form;
- The concentration of active recreation or intensive development in WCRP within Alvarado Park;
- The designation of the remaining 2,470 acres (95% of the total area) of WCRP as a Natural Area, with development limited to ensure the preservation of the Park's natural features and qualities, including defined Special Protection Units;
- The provision of four types of group camping sites (in addition to the youth camp area in Alvarado Park) comprising rotational group camps, an equestrian camp, "mystery camps", and the designation of a campsite for backpackers in Havey Canyon; and
- The retention of the existing 14-mile system of hiking and riding trails and the addition of several short new trails to make the system more complete. These include the extension of Wildcat Creek Trail along the roadway of the former Wildcat Canyon Parkway; the extension of an existing track between the Parkway and the Belgum Sanitarium site to the ridge area south of the Park boundary, so as to extend the National Skyline Recreation Trail along the ridge from its present alignment in Havey Canyon.

The NRMP includes the major actions described in the Summary on pages 49 and 50.

The EIR addresses each topic under two sub-headings: Setting (a description of existing conditions); Impacts (a description of the effects of the Project in changing existing conditions) and Mitigation Measures (a description of possible methods for reducing the severity of any significantly adverse impact). Mitigation measures marked by an asterisk (*) are already included as measures within the LUDP/NRMP. Following any mitigation which is not included in the LUDP/NRMP, is a statement of the reason for not including it.

Additional information on the existing setting and context of WCRP may be formed in the report Resource Analysis prepared for Wildcat Canyon/Tilden Regional Parks, as revised in January 1984, which is hereby incorporated by reference.

This EIR may be used as a source of information by the following agencies in reviewing situations which require discretionary approvals.

Agency	Possible Purpose
City of Richmond Planning Department	Rezoning Application, Conditional Use Permit
City of San Pablo Planning Department	Same
Contra Costa County Planning Department	Same
Contra Costa County Flood Control District	Permits related to storm drainage control
California Department of Fish and Game	Permits to modify a water course

B. GEOPHYSICAL AND BIOLOGICAL IMPACTS

1. Geology/Soils

a. Setting:

The WCRP area includes basement rocks of the Cretaceous period (10 to 135 million years ago), and much younger overlying rocks of the Tertiary period (7 to 70 million years ago). The older basement rocks are part of the Franciscan group and include serpentinite and metamorphic rocks. While the unweathered rocks of the Franciscan group are dense, hard and resistant, they can disintegrate and become much less stable when weathered or subject to earthquake fault movement. The younger overlying rocks are part of the Contra Costa group. Identified formations include Bald Peak, Siesta, Moraga and Orinda formations.

Portions of the Contra Costa group may include significant amounts of clay materials that result in a fairly incompetent bedrock. Small deposits of alluvial materials are also present along the lower portions of Wildcat Creek and its larger tributaries. (See Resource Analysis for mapping of the major geologic features.)

The geologic formations of the Wildcat/Tilden Park area reflect a history of earthquakes and tectonic movements. The bedrock has been uplifted, bent and, in places, sheared. Numerous inactive faults exist in the area, and at least one bedrock fault (the Wildcat Fault) is considered active along the lower part of its reach within Alvarado park where it joins the active Hayward Fault. Additionally, the area may be subject to severe seismic shaking in the event of a major earthquake on the Hayward Fault, which is located as close at 0.25 miles west of the park area. The presence of an active fault presents the possibility of a rupture of the ground surface. The proximity of active faults presents a potential threat to the integrity of all man-made structures; Lake Anza Dam and Jewel Lake Dam are of special interest. Such a failure would require prompt emergency action in order to avoid a substantial loss of life.

Numerous portions of the site have been identified as subject to landslides, as shown on Figure 9, and it is likely that additional landslide areas exist as well. The weak and broken nature of the bedrock, the Mediterranean climate, and severe seismic shaking have provided conditions that are conducive to numerous bedrock landslides and soil failures.

The soils are generally shallow, slightly to moderately acidic, and have moderate to high erosion potential. Almost all of the soils are poorly suited or unsuited for intensive agriculture, and are moderately to highly corrosive to uncoated steel.

Impacts and Mitigation:

The NRMP includes policies directing the implementation of a number of measures to minimize earth slides, soil erosion, sedimentation, and drainage problems. Minimizing park use and construction activities in areas of existing slides and on steep slopes, diversion of surface water, monitoring of major slide areas, and careful design and construction of roads and trails that must cross slide areas are included to avoid aggravating the earth slide

problem. This would reduce soil erosion and sedimentation through identification of sources of sediment through monitoring eroded areas, seeding bare areas and appropriate use of sediment basins and traps, and monitoring areas downslope and downstream from slides and eroded areas. Soil erosion and drainage problems along trails and service roads would be controlled through the use of culverts, water bars, rip-rap, by limiting the intrusion of cattle on the principal trails and service roads by placement of salt-licks and water sources, and by fencing off cattle from particular areas, including Wildcat Creek Trail.

The LUDP includes the construction of new trails in WCRP. The new trails follow existing tracks, roads, or trails; however, parts of these trails are abandoned or undeveloped due to steep topography and earth slides. Development of additional trails would require the correction of existing slides, and construction of additional minor drainage structures. These trails could increase erosion and could reactivate earth slides.

There are a number of impacts related to the geologic character of WCRP which may result from the implementation of the LUDP. These are listed below, together with mitigation measures which appear capable of reducing the significance of the impacts to an acceptable level:

°Erosion resulting from the use of picnic and group camp areas.	Mitigation: Provide for rotational use of some sites*; monitor the rate/extent of vegetation loss*, and schedule replanting as needed*.
°Collapse of bridges crossing the Hayward/Wildcat Fault rupture zone (two existing and one new bridge).	Mitigation: Remove remains of bridges if and when destroyed or damaged irretrievably; design and build new bridges as low-cost bridges for foot traffic only.
°Destruction of existing impoundment dams located within the Wildcat Fault rupture zone.	Mitigation: Add to LUDP provisions for demolition of existing impoundment dams. See No. 1 following.

°Erosion of disposal area for silt dredged from Jewel Lake.	Mitigation: Select the location of the silt disposal site so as to minimize the effects of possible erosion*; design drainage facilities around the disposal site and provide a siltation basin to limit the velocity and volume of runoff affecting the silt site and the adjacent areas*. Alternatively, dispose of silt off-site, or delete plans to de-silt Jewel Lake. See No. 2 following. †
°Erosion of areas subject to landsliding.	Mitigation: Divert surface waters away from head or body of existing slides, or slide-prone areas*; monitor major slide areas to apply remedial measures as early as possible*; seed or hydromulch bare areas*.
°Collapse of Lake Anza and Jewel lake Dams in the event of major ground shaking.	Mitigation: Evaluate the structural design of the dam to identify the risks of collapse, and to define possible reinforcement measures*. As an alternative, delete plans for maintaining Jewel Lake. See No. 2 following. †
°Rupture of sewer line and pollution of creek in the event of major seismic occurrence.	Mitigation: Provide flexible connections to line on both sides of the creek*, and automatic shut-off valves to seal off pipe in the event of rupture*.

† Although not within WCRP boundary, discussions of this area is included because of its relevance to WCRP's operations and/or impacts.

°Possible placement of dredge spoils/silt on old landslides, with water infiltration promoting reactivation of slide.	Mitigation: Dewater dredge spoils/silt before placement in disposal area; select disposal area that is not in a slide-prone location*; engineer the placement of spoils (e.g. impervious lining or layer, adequate drainage, etc.) so as to minimize infiltration of water into lower layers. Alternatively, dispose of spoils offsite or delete plans to dredge Jewel Lake. See No. 2 following. †

Following is a discussion of reasons for not including some mitigation measures noted above:

No. 1:

Existing impoundment dams provide shallow areas for wading. Their continued existence costs nothing and provides a benefit. The removal of these facilities would create an expensive environmental mess, causing downstream sedimentation, possibly undermining many existing rock walls, and destabilization of large areas of stream. Construction equipment access to remove check dams, and/or to desilt them could damage archaeological sites or other areas of Alvarado Park.

No. 2: †

Although environmentally superior, plans to dispose of silt offsite are substantially more expensive than the proposed suction dredging with on-site disposal. Creation of a desilting basin may trigger earth sliding through reactivation of an old slide and/or increased water percolation into the soil. The probability of this event is not known: The feasibility and specific measures for deposition of sediment, temporary and permanent drainage structures must be studied and proposed as part of a capital improvement planning process. Regarding deletion of plans to dredge Jewel Lake, see discussion on pages 59 and 60 of the NRMP.

2. Hydrology/Water Quality

Setting:

Wildcat Creek runs through WCRP and receives water from several springs within the park. Wildcat Creek has a well-developed riparian vegetation over-story and a bottom characterized by

† Although not within WCRP boundary, discussions of this area is included because of its relevance to WCRP's operations and/or impacts.

large rocks and cobbles with silt and sand between. Several small rock and concrete impoundments that were created in Alvarado Park as part of park development in the 1930's have fallen into disrepair and filled with sediment. Wildcat Creek frequently overflows its banks in the lower watershed area (outside the park) in the winter. The Contra Costa County Flood Control District and the U.S. Army Corps of Engineers have plans to channelize the lower reaches of the creek for flood control purposes. Summertime flows range from 0.2 cubic feet per second (just downstream from Jewel Lake) to 1.4 cubic feet per second (near the Rifle Range Road crossing).

The creek's water is close to neutral (Ph 7.7), well oxygenated (about 8.2 parts per million), and cool (about 65-70°F in the summer). Although the creek has been polluted in the past as a result of spills of untreated sewage and of runoff from horse paddocks, this kind of pollution was not evident in 1982 testing. However, large amounts of nitrates and phosphates were present, resulting in a bloom of filamentous green algae. These nutrients are present in elevated amounts apparently as a result of silt and sediment reaching the creek from several active landslides and other erosion areas within WCRP.

Jewel Lake, the major body of water in WCRP, was built in 1921 as a source of public water supply, but was not used for this purpose for more than five years. Jewel Lake naturally fills with sediment; the maintenance of Jewel Lake as a lake requires dredging from time to time. It was dredged in 1962, and again in 1967. The lake occupies about two acres and contains 2 to 6 acre-feet of water year-round. The vegetation and wildlife appear to indicate that the water is relatively warm (60-70°F), well oxygenated and rich in nutrients. Other ponds in WCRP are less than two acres in area and contain less than one acre-feet of water. The water quality in these ponds is not monitored, and they are used for livestock water supply and wildlife habitat enhancement purposes. †

Impacts and Mitigation:

The Natural Resources Management Plan provides policies to protect the riparian zones from erosion, sedimentation, and incidental pollution. Entrance by cattle, horses and pedestrians into riparian zones (other than pedestrian access to recreational units such as Alvarado and Jewel Lake) would be restricted in order to prevent soil erosion and resultant sedimentation.* Cattle movement into these areas is proposed to be controlled by placement of salt-licks and water sources, fencing, and seasonal rotation of cattle location and herd size. Sedimentation would also be reduced along streams (as discussed in the Geology/Soil section).*

† Although not within WCRP boundary, discussions of this area is included because of its relevance to WCRP's operations and/or impacts.

The Natural Resources Management Plan includes the dredging of Jewel Lake on a continuing basis. This program would have the effect of maintaining Jewel Lake, which is a man-made lake, as a lake rather than allowing the natural sediment accumulation to turn the lake into a braided stream and riparian woods. †

Jewel Lake would continue to act as a sediment catchment basin, thus reducing the extent to which sediment loads would affect the flooding characteristics and water quality downstream along Wildcat Creek. †

Impacts relating to the hydrologic/water quality effects of the LUDP's provisions are listed below, together with mitigation measures which may be capable of reducing the significance of the impacts to an acceptable level.

°Decline in the water quality of Jewel Lake during the dredging operations.	Mitigation: Minimize degradation of water quality by removing sedimentation from the lake after it has been drained, or by sections from which water has been removed.* Alternatively, delete plans for dredging. See No. 1 following. †
°Decline in the water quality of Wildcat Creek due to erosion from silt disposal area.	Mitigation: Construct siltation basin at disposal site*. Alternatively, dispose of silt off site or delete plans for dredging. See No. 2 following. †
°Seasonal variation in water quality due to introduction of nutrients into Wildcat Creek resulting from erosion.	Mitigation: Refer to erosion control measures included in Section 1 on Geology/Soils above.
°Decline in water quality resulting from runoff from the existing Little Farm.	Mitigation: Collect and treat runoff from the existing Little Farm*. Alternatively, close or relocate the Little Farm. See No. 3 following. †
°Decline in water quality resulting from continuing erosion at the end of the Jewel Lake spillway, which threatens both the dam and the road.	Mitigation: Redesign and reconstruct the downstream end of the Jewel Lake spillway*. †

† Although not within WCRP boundary, discussions of this area is included because of its relevance to WCRP's operations and/or impacts.

°Proposed development/redevelopment of picnic areas in Alvarado Park Recreation Unit located in the flood plain.	Mitigation: Delete plans to renovate any picnic facilities in the flood plain unless they can be designed to withstand flood effects. See No. 4 following.

Following is a discussion of reasons for not including mitigation measures noted above:

No. 1: †

Mitigation measures have been included in the NRMP to minimize downstream degradation of stream water during dredging. There seems to be little benefit in maintaining water quality in the Lake if all water will be removed. Dredging Jewel Lake by sections is not cost effective, i.e., the minor temporary benefit to water quality is accompanied by major expenses.

No. 2: †

See No. 2 in geological impact mitigation discussion, page 80. Regarding deletion of plans to dredge Jewel Lake, see discussion on pages 59 and 60.

No. 3: †

Regarding closure or relocation of the Little Farm, see discussion following on Alternative 4, page 115.

No. 4:

Seven picnic tables have been located in low areas of Alvarado Park and in the flood plain of Wildcat Creek. These tables are at two picnic sites which have been used for many years. Both of these sites offer a pleasant location to picnickers that is close to the stream, one of the basic attractions at Alvarado Park. Replacement and/or maintenance costs at these locations is considered minor and acceptable.

3. Vegetation

Setting:

Four major types of vegetation exist in WCRP: Grasslands, brushland, mixed broadleaf forest/riparian forest and non-indigenous tree plantations, as shown on Figure 10. Most of the park is covered with grassland and brushland vegetation. The grassland consists of introduced annual species, such as wild

† Although not within WCRP boundary, discussions of this area is included because of its relevance to WCRP's operations and/or impacts.

oats, barleys and bromes, but also consists of strains of native grasses including needlegrass, meadow barley and creeping wild-rye. Native wildflowers are present, including the California poppy, lupine, wild hyacinth, buttercup and mallow. The brush-land consists of such species as coffeeberry, thimbleberry, ninebark, rose, ocean spray, osoberry, toyon, currant, blue-blossom, elderberry, coyote brush, monkeyflower and sagebrush. The brushland is subject to and adapted to the periodic occurrence of wildfires. The suppression of wildfires by humans during the last 50 to 100 years has created a brushland environment that could result in wildfires of a much greater intensity than otherwise would have occurred.

The mixed broadleaf forests provide a high value wildlife habitat. They consist primarily of coast live oak, bay, madrone, maple and buckeye trees. The underlying rich shrub and herb layer includes poison oak, blackberry, hazelnut, Solomon's seal, fairy bells, woodland star, alum root, angelica, sword fern and wood fern. Riparian woodland occupies the streambank areas of Wildcat Creek and the lower portions of its tributaries. It includes arroyo willow, yellow willow, white alder and an understory of shrubs including poison oak, blackberry, ninebark, creek dogwood, twinberry and elderberry.

Non-indigenous tree plantations include large amounts of eucalyptus trees and groves of Monterey pine, ponderosa pine, giant sequoia, Douglas fir and incense cedar. The large eucalyptus plantations have been reduced over the years as a result of removal, abandonment, and freezes, but large numbers of blue gum and red gum eucalyptus trees still exist. Memorial groves using non-indigenous conifers have been planted symmetrically. A variety of non-indigenous landscaping plants have spread through WCRP, including Scotch broom, French broom, acacia, German ivy and English ivy.

The Santa Cruz tarweed (Holocarpha macredenia) is an officially protected plant. It has a limited range, consisting of Contra Costa, Marin, Monterey and Santa Cruz counties. It has been introduced to, and is reproducing in WCRP.

There are five jeopardized plants that occur in WCRP and Tilden Nature Area including the Oakland mariposa, the fare-well-to-spring, the western leatherwood, the white fritillary, and the Lobb's aquatic buttercup. These plants have not yet received official protection under State or Federal law.

Impacts and Mitigation:

The NRMP provides policies concerning vegetation and fire fuel management for the natural areas. Large areas of WCRP will be maintained as grassland with perennial grassland species to be

favored by seasonal grazing practices. Infestations of exotic or "weed" plant material such as artichoke thistle, star thistle and broom will be controlled by hand or mechanical removal, or possibly by use of chemicals approved by the District (as part of an integrated pest management program). Brushland areas are to be maintained to reduce the potential for wild fires spreading into adjacent developed areas.

Eucalyptus groves will be maintained so as to create conditions that will minimize uncontrollable wild fires, and would be achieved by use of hand labor and mechanical equipment. The long-term goal is to replace eucalyptus groves with indigenous vegetation. Riparian woodlands would be preserved in as near to natural condition as possible, and populations of protected and jeopardized plants would be maintained and encouraged. Exotic vegetation will be controlled under the District vegetation management policy.

These policies would maintain or slightly increase the amount of grasslands, brushlands, mixed broadleaf forests and riparian woodlands, and to gradually decrease the amount of exotic vegetation and eucalyptus trees.

Ten areas are identified as "Special Protection Units" because they contain rare species that warrant special protection management policies. These policies will enhance the habitat of the Santa Cruz Tarplant (Holocarpha macredenia) and the Oakland mariposa (Calochortus umbellatus).

The LUDP includes the construction of two additional hiking/riding/service trails, and the development of rotational group camps and a horse camp for infrequent use in the natural areas of WCRP. These developments appear to conform with the guidelines for treatment of natural areas, which include both the preservation of natural vegetation resources and the provision of a setting for certain outdoor recreational experiences. If the development of the trails and camps conformed with the general vegetation management recommendations, as summarized above, it is not anticipated that any significant impact of these developments on the vegetation population would ensue, although minor specific localized effects on vegetation could be expected.

The LUDP includes provisions for the Alvarado Park Recreation Unit which include site renovation and other work. Irrigated turf will be developed on a portion of the site, the bowl area uphill from the Pavilion building will be regraded, cleaned and renovated, and the streambed embankment area of Wildcat Creek will be renovated by replanting as it passes through Alvarado Park. The pavement of Wildcat Canyon Parkway will be removed.

All improvements are expected to be designed, landscaped and managed in such a way as to provide an appearance that harmonizes with the natural landscape, in conformance with the EBRPD Master Plan. If these goals are met, no significant effect upon vegetation populations is expected.

The impacts of the LUDP upon vegetation are listed below, together with mitigation measures which may be capable of reducing the significance of the impacts to an acceptable level.

°Invasion of brush into grassland areas near Wildcat Creek that are removed from grazing.	Mitigation: Continue grazing on grassland areas.*
°The combustible character of brushland represents a hazard to houses located on ridgetops above brushland areas.	Mitigation: Implement brushland management policies, fuel break provisions, contained in NRMP*.
°Escape of a prescribed fire with possible loss of life and property.	Mitigation: Use of trained personnel*; have back-up equipment and services available*; select safe-weather days.*

4. Wildlife

Setting:

The diversity of vegetation and reliability of water in WCRP provide a productive habitat for a wide variety of wildlife.

The mammals include fox, raccoon, skunk, opossum, vole, long-tailed weasel, California ground squirrel, pocket gopher, deer mouse, black tailed jackrabbit and black-tailed deer. Domestic dogs and cats are found roaming free in the park. The domestic dogs appear primarily to be pets from the adjacent neighborhoods, however feral dogs are also present. The domestic cats appear to have become feral throughout much of WCRP; these animals can inflict serious injury with their teeth and claws if handled by park users.

The birds in WCRP include a variety of raptors and carrion-eaters such as red-tailed hawks, American Kestrels, sparrow hawks, golden eagles, sharp shinned and Cooper's hawks, turkey vultures and great horned owls. Varieties of songbirds include the horned lark, scrub jay, chestnut-backed chickadee, bushtit, northern mockingbird, American robin, song sparrow, western

meadowlark and American goldfinch. There are several bird species associated with aquatic habitats, including canvasback duck, mallard duck, American coot, and domestic geese and ducks. Many migratory birds also use the park, including ducks, barn swallow, cedar waxwing, solitary vireo, MacGillivray's warbler and purple finch.

Reptile and amphibian species include the western fence lizard, northern alligator lizard, gopher snake, striped racer snake, Pacific rattlesnake, Pacific treefrog, red legged frog and western pond turtle. A wide variety of insects and invertebrates exist in WCRP, including ants, bees, wasps, mosquitoes and butterflies. Aquatic animals include planktonic animals and gamefish, such as rainbow trout, catfish, largemouth bass, blue gill, black crappie, carp and steelhead.

There may be one jeopardized animal living in the park area: The Alameda striped racer snake (Masticophis lateralis euryxanthus), which is protected as "rare" under the California Endangered Species Act. †

Impacts and Mitigation:

The Plan includes wildlife habitat enhancement projects that have been scientifically demonstrated to be effective.

The habitat of the Alameda striped racer has been identified as a Special Protection Unit, and will be managed to maintain and enhance the habitat value for this species. †

The impacts of the LUDP upon wildlife are listed below, together with mitigation measures which appear capable of reducing the significance of the impacts to an acceptable level.

°The potentially adverse effect upon aquatic animals and wildlife from degradation of water quality in Jewel Lake resulting from dredging of the Lake or disposal of spoils within the watershed.	Mitigation: No mitigation is available to protect aquatic life in Jewel Lake during dredging operations. Mitigation of aquatic life downstream from Jewel Lake is previously cited under Section 1 Geology and Soils, and 2, Hydrology/ Water Quality. †
°The effect of trapping feral domestic animals in reducing impacts upon park users.	Mitigation: None needed -- impact is beneficial.

† Although not within WCRP boundary, discussions of this area is included because of its relevance to WCRP's operations and/or impacts.

°The impact of the LUDP upon rare/endangered plants.

Mitigation: None needed -- the provisions of the LUDP would be beneficial in protecting and enhancing suitable habitats.

5. Air Quality

Setting:

The area in which WCRP is located has a Mediterranean climate; cool, wet winters and warm, dry summers. When warm temperatures persist in the inland valleys of the State for several days, a local low pressure area is created that draws the cool coastal fog inland to the WCRP area. Winter temperatures typically include evening lows in the low 40's and daily highs in the mid 50's. In the summer evening lows are in the mid 60's and daily highs are in the mid 70's. Winds come predominantly from the west, except during winter storms. Typical summer wind patterns are calm in the morning hours, breezes of up to 10 to 20 miles per hour in the evenings, and calm at night. During the winter, large cyclonic storms which originate in the Pacific Ocean are a frequent occurrence. Precipitation typically amounts to between 22 and 24 inches per year, with almost all of this consisting of rain, with 90% falling between November and March.

While there have been no air quality measurements taken within WCRP, it is assumed to experience violations of State and Federal Air Quality Standards for oxidants because this is a region-wide problem. Violations occur primarily during calm weather periods when cold air is trapped in the valleys of the region with a layer of warmer air above. Air pollution may tend to make local rainfall and fog acidic; however, there are no data to document this. Lake Anza, in adjacent Tilden Regional Park, measures slightly alkaline (Ph 7.5 to 8.7), indicating that any such effect is not yet significant.

Impacts and Mitigation:

The choice of Canon Drive over Central Park Drive as an access route, if it is necessary to make a choice between these two routes, would result in fewer total vehicle-miles of travel for the same number of trips because the great majority of Park users would be provided with a more direct access route. Fewer vehicle-miles of travel would lower levels of air pollutants. However, this effect would not be significant. †

The impacts of the LUDP relating to air quality are listed below, together with mitigation measures which appear capable of reducing the significance of the impacts to an acceptable level.

† Although not within WCRP boundary, discussions of this area is included because of its relevance to WCRP's operations and/or impacts.

°Prescribed burning to control fuel loadings in brushland areas may create potentially adverse air quality impacts.	Mitigation: Adhere to State Air Quality regulations when conducting prescribed burns.

6. Noise

Setting:

WCRP is shielded from the noise of adjacent urban areas by the ridges which extend along eastern and western edges. The roads immediately adjacent to the park carry relatively low volumes of traffic, and do not represent a significant source of noise. In general, the noise levels within WCRP probably do not exceed those in rural areas, which typically range from 45 to 50 decibels on a 24-hour scale termed the Community Noise Equivalent Level (CNEL).

Overflights of large commercial or military aircraft usually occur at an altitude of more than 8,000 feet above the park, while small private planes and helicopters generally operate at an altitude of between 1,500 and 5,000 feet above the park. Although this activity is audible throughout the park, it is not frequent or loud enough to interfere with normal conversations between people within 10 feet of each other. Residents of the area adjacent to Alvarado Park, as well as users of the park itself, are exposed to noise levels associated with play activities. The sounds of voices (particularly children) would represent the most prevalent and audible sound characteristic of the park's use, and probably would not exceed intermittent peak levels of about 65 to 70 decibels.

Impacts and Mitigation:

The noise impacts of the LUDP are minor. New/rehabilitated facilities in Alvarado Park will attract recreational use that will generate noise (voices, laughter and possibly music from radios, tape players, etc.) that is estimated to register about 65-70 decibels at its maximum level. Normal park use will not exceed EPA guidelines for residential areas.

C. SOCIO-ECONOMIC IMPACTS

1. Land Use and Planning

Setting:

The 1980 Master Plan of the East Bay Regional Park District designates WCRP as a Regional Park. The LUDP is in conformance to Park purposes and standards established therein. Only part

of the total Park area is designated as "Regional Park" under the City of Richmond General Plan. Much of WCRP is currently designated Residential-Rural Low Density (0 to 1.9 units per acre) in the Richmond General Plan.

The City of Richmond owns the 42-acre Alvarado Park, which includes 15 picnic areas, a tot lot playground, two reservable group overnight camps, and the remains of a former dance pavilion which serves as a storage building and restrooms. In addition, the City owns the right-of-way for Wildcat Canyon Parkway, formerly the main access route to Wildcat Canyon Park from the north.

The Tilden Nature Area to the south is currently administered by WCRP personnel, although it remains officially within Tilden Park boundaries. This area includes both the Little Farm and the Environmental Education Center, as well as additional recreational facilities surrounding the Jewel Lake area.

WCRP is bordered on the west primarily by private residential development in the cities of Berkeley, El Cerrito and Richmond, as well as in the unincorporated Kensington district of Contra Costa County. Much of this residential development occurs along ridgetops, in close proximity to steeply sloping, wooded hillsides within the Park. The Park is flanked on its northern side by unincorporated areas of Contra Costa County -- private residential development to the northwest and private agricultural land to the northeast. Along the park's eastern boundary lies agricultural land within Richmond's city limits, a large proportion of which has already been approved for residential development under a Planned Unit Development application (the Park Glen Estates development). Land along the southeastern boundary is maintained as watershed by EBMUD. Access is restricted to trail uses available on a permit basis. Tilden Regional Park comprises the southern border to Wildcat Canyon Park.

Impacts and Mitigation:

The proposed WCRP LUDP/NRMP conforms to both municipal and EBRPD land use planning policies. The incorporation of Alvarado Park and 178 acres of the northern end of Tilden Regional Park into the Park requires no change in current land use zoning.

Although zoned "Rural Low" residential use (Richmond has no "Park" zoning; see page 13), the 42-acre Alvarado Park has long been removed from residential use by the City of Richmond. The proposed change in ownership and renovation of park facilities in Alvarado Park reflect the City's own desire to maintain and enhance the regional urban community's recreational use. Furthermore, the concentration of recreational activities within the proposed Alvarado Park recreation unit portion of WCRP

satisfies guidelines established by the District Master Plan, whereby major development takes place in "Recreation Units", leaving "Natural Areas" relatively undeveloped. In this way, Alvarado Park serves both as a "buffer" zone for the transition between urban and near-natural park areas, as well as an access point and introduction to WCRP facilities.

Proposals to improve access to WCRP, including the use of portions of Wildcat Canyon Parkway as an overflow parking area, require the transfer of ownership or other agreement for use of the Parkway's right-of-way between the City of Richmond and the East Bay Regional Park District.

A large proportion of the peripheral area abutting the boundaries of WCRP is either already developed with generally low-density residential uses that can be expected to remain without substantial change in character (e.g. the sections of Kensington, El Cerrito, Richmond and San Pablo along the western boundary), or consists of land owned by EBMUD which is maintained as watershed with restricted access (the southern half of the eastern boundary). The latter is consistent with the park uses of WCRP, while the former is exposed to the hazard of wildfire in the vegetative cover of the steep slopes of the park.

The area presenting the greatest potential for future conflict between adjacent land uses and park uses in WCRP is in the northern half of the eastern boundary, comprising about 20% of the total perimeter of the park. In this area, the land is in primarily private ownership, and has been zoned and used for agricultural purposes. This area, adjacent to El Sobrante, is unincorporated area under the jurisdiction of Contra Costa County, and future development may present visual and other conflicts with the park. To the south, land within the City of Richmond has been approved for a residential Planned Unit Development (PUD). Park uses could be subject to adverse effects from this project (Park Glen Estates) or from possible development in the open space portions of this PUD, which occupy the land at the higher elevations in closest proximity to the park. The preservation of this 1,000 foot wide strip of open space, as indicated by the Park Glen Estates Master Plan, serves an important function in buffering the park from domestic pets, the intrusion of motor vehicle and other noise, and from the potential for liability for damages to privately owned improvements caused by the instability of land within EBRPD ownership.

In addition to the direct effects of development in the lands adjacent to the north and east of the Park, a secondary impact would also affect the park. EBMUD currently owns three in-holdings

in WCRP: The Pearl Tank site (already developed with an above ground water tank) and two undeveloped sites -- "Divide Reservoir Site" and "Ridge Trail Tank Site". The further development of these two sites is contingent upon further development north and east of WCRP. "Divide Reservoir" site would be developed if lands north of the Park in the general area of Clark Road were developed. "Ridge Trail" tank would be developed if the upper 1,000' wide zone of Park Glen Estates were developed. If one or both of the sites were developed, the preferred facility would be a buried tank. Alternatively, an above ground tank screened by earth berms, planting and architectural screens (similar to the existing Pearl Tank) would be built. In either case, a permanent access and service road would be built across park land to the tank site, probably following the Clark-Boas Trail or Nimitz Way. The most major impacts would occur during the construction of the tank(s) including earth moving and tank construction. Other than mitigation by permanent planting, earth berm screens or architectural and/or paint treatments, mitigation of this impact is not available.

In addition to the in-holdings of EBMUD, there are two others: The Edwards Parcel, approximately one and a half acres, located adjacent to the east side of Wildcat Canyon Parkway and at the end of Park Avenue; Bay Cablevision site, approximately six acres, located on the ridge of the Taylor-McCosker Parcel adjacent to the EMBUD Pearl Tank site. With the conveyance of Wildcat Canyon Parkway to the District, the Edwards Parcel will become an in-holding. Access to this parcel will be from the end of Park Avenue and then over 500 feet of Park (former Parkway) along an existing paved roadway. Existing land use designation is "rural low" (0 to 1.9 dwelling units per acre), which would permit up to two additional units on the site. However, in view of the site's topography, it's difficult access and other limitations, development is unlikely. Further development of the Cablevision site beyond its existing transmitter is possible but would require some review and approval by the City of Richmond. An access road is already existing across park land so the principal long-range potential impact is visual.

2. Transportation and Access

Setting:

a. Access and Circulation

Vehicular access to WCRP occurs at the northern end through Alvarado Park and at the southern end through Tilden Nature Area. At present, auto drivers enter Alvarado Park through a number of local traffic routes,

including Park, Marin, Shasta, McBryde and Arlington Avenues. Since 1981, the major access point off Park Avenue -- Wildcat Canyon Parkway -- has been closed to the public due to landslides. No parking lot is provided specifically for access to WCRP on the northern end, but about 50 spaces are provided at Alvarado Park and about 15 spaces in an adjacent lot.

Vehicles gain access to the southern end of the Park through Canon Drive and/or Central Park Drive in Tilden Regional Park. Both routes can be reached via public roads in Berkeley including Grizzly Peak, Spruce, Shasta and Wildcat Canyon roads. Canon Drive was closed to the public between 1982 and 1984 due to earthslides. A total of 100 parking spaces are provided at northern end of Central Park Drive where access is provided to WCRP.

There is no internal vehicular circulation in WCRP outside of service roads for park maintenance and fire protection. Along with hiking/riding trails, these service roads and fire trails provide pedestrian and equestrian access at various locations. Nimitz Way, paved along 2.3 miles, provides access to the former Army NIKE base on San Pablo Ridge, and serves as the only paved bicycle trail within the Wildcat/Tilden Park region.

No increase is anticipated in vehicle trips to the southern access. Central Park Drive north of Canon carries an estimated Average Daily Traffic (ADT) of 500 vehicles per day. The capacity of this road is approximately 10,000 vehicles per day. A study of accidents occurring along Central Park Drive showed a total of three accidents occurring in 1983 and two occurring in 1982. These accidents are not significant in number.

Existing traffic volumes along northern access routes to WCRP are shown in Figure 11. The major access route will be McBryde Avenue. This street varies from two to four lanes and has a capacity of about 15,000 vehicles per day, although this will be determined to some extent by the intersections along McBryde. The most critical intersection in the area of the project is McBryde Avenue and Amador Street. It is a two-way stop with McBryde Avenue as the through street. This intersection presently operates satisfactorily with moderate delays on the northbound approach and little or no delay on the other approaches. The traffic volumes at this intersection do not warrant a traffic signal according to Caltrans signal warrants.[1]

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[1] Traffic Manual, California Business and Transportation Agency, Division of Highways, 1971-1984.

The traffic analysis for the northerly access routes to WCRP focused on traffic impacts to the existign street system. CALTRANS has planned improvements to Interstate 80which are expected to occur within the next several years. Current plans include the closing of the existing ramps at Amador Street, McBryde Avenue and Solano Avenue. If this occurs, access to the park will be proivded via the San Pablo Dam Road and San Pablo Avenue interchanges. Under this scenario, the traffic impacts of project would be very similar to what is described above.

It is possible with the proposed I-80 improvements, some project traffic will use Marin Avenue and Riverside Avenue for access. This would be a feasible route for vehicles headed to and from Interstate 80 north of the project, which amounts to approximately 30% of project traffic or 250 vehicles per day. This increase in traffic is considered to be a maximum based on worst-case assumptions. No mitigation measures are recommended, since a daily traffic load of 1,500 to 2,000 would not alter the existing high level of service on Marin Avenue and Riverside Avenue.

Diversion from the freeway is a concern at this intersection. During times of heavy freeway traffic, northbound freeway drivers could divert to Amador Street which parallels the freeway.

Few traffic accidents have been recorded in the area near the site. In 1983, these accidents included one at the Park Avenue/Main Avenue intersection and three at the Amador Street/McBryde Avenue intersection. In the first six months of 1984, six accidents occurred at the Amador Street/McBryde Avenue intersection and none in the rest of the area. Of these accidents, three were right-angle accidents which may have been partially caused by the lack of a four-way traffic control.

b. Public Transportation

Public transportation provides regular access to the western side of WCRP. At the southern end of the Park, AC Transit buses stop at Spruce and Wildcat Canyon Road and the intersection of Euclid and Grizzly Peak Boulevard, and along the west side buses stop at the intersection of the Arlington and Rifle Range Road. To the north, Alvarado Park is served by buses which stop at McBryde and Arlington Avenue. During the summer, bus service is extended to the Environmental Education Center. Additional buses stop at San Pablo Dam Road and Clark Road less than one mile from WCRP.

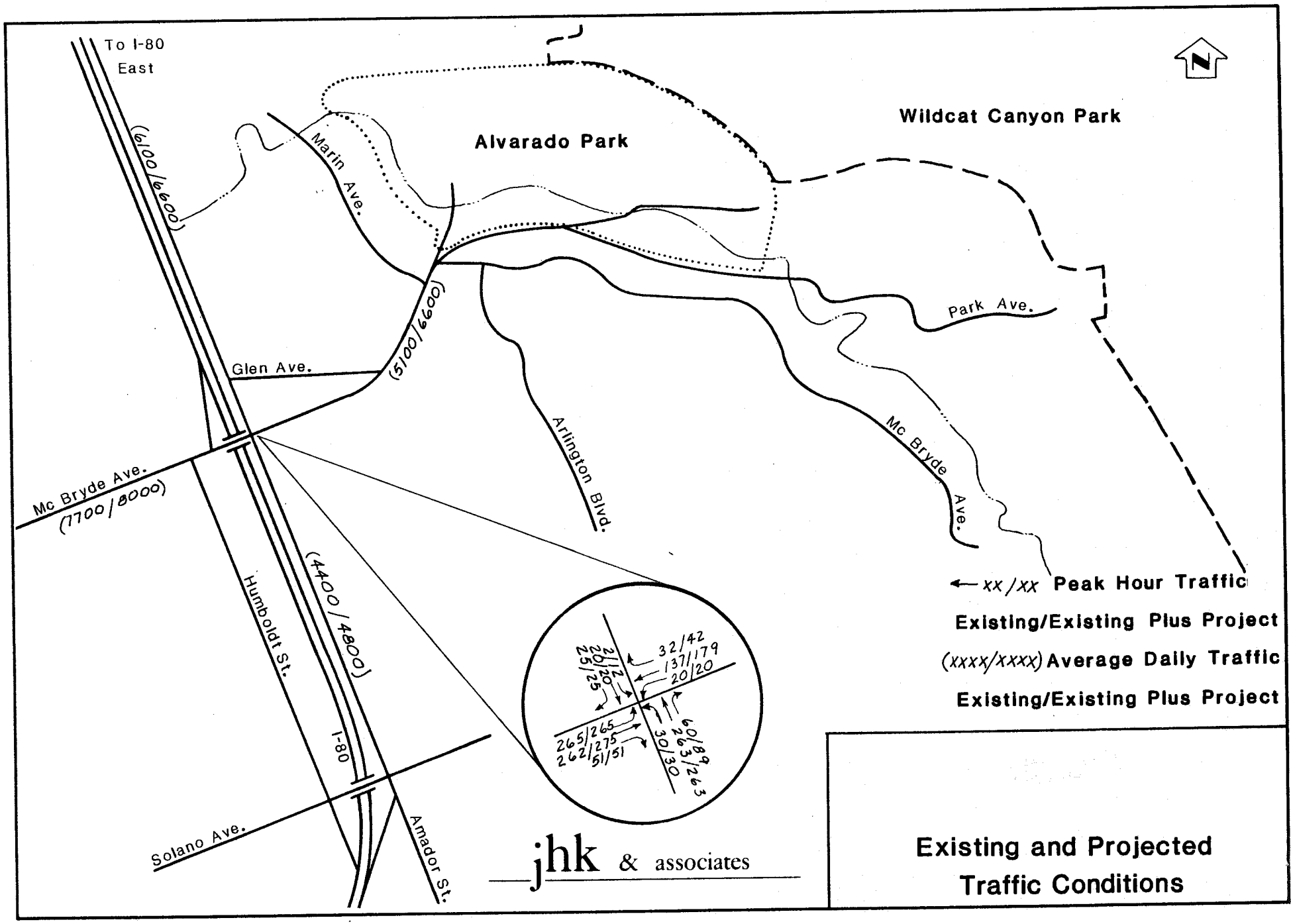
To I-80
East
(6100/6600)
Marin Ave.
Alvarado Park
Wildcat Canyon Park
Park Ave.
(5100/6600)
Glen Ave.
Arlington Blvd.
Mc Bryde Ave.
Mc Bryde Ave.
(1700/8000)
Humboldt St.
(4400/4800)
I-80
Solano Ave.
Amador St.
32/42
137/179
20/20
2/2
20/20
25/25
60/89
263/263
30/30
265/265
275/275
262/262
51/51
← xx/xx Peak Hour Traffic
Existing/Existing Plus Project
(xxxx/xxxx) Average Daily Traffic
Existing/Existing Plus Project
jhk & associates
Existing and Projected
Traffic Conditions

Figure 11

Impacts:

a. Access and Circulation

Access to WCRP is severely limited by geophysical conditions; Wildcat Creek Parkway is currently closed, and Canon Drive was closed due to earth slides. Although presently open, Canon Drive and Central Park Drive face potential closure due to earth slides. Alvarado Park provides the primary access to WCRP from the north; the Land Use Development Plan would not alter these limited access routes.

At the southern end of the Park, no increase in traffic is expected. No additional facilities are planned. At the northern end of WCRP, some increase in traffic is expected due to the project.

Trip generation for this study was conducted in a very conservative way. This was done because of the difficulty of predicting trip generation for parks. The actual traffic generated by the project will certainly be less than indicated in this report. The number of parking spaces was used in trip generation since this variable could be more easily compared with trip generation studies of other park facilities. Some generation of existing trips occurs at Alvarado Park and the northern end of WCRP, but the existing trip generation was assumed to be zero in order to provide conservative estimates. Studies of existing park facilities published by Caltrans[2], show a maximum trip generation rate of 13 daily trips per parking spaces. Since 60 parking spaces will be provided, a maximum of 780 daily trips are expected. These trips were distributed to the street system as follows: 5% local trips east of I-80, 20% to McBryde west of I-80, 30% to I-80 northbound and 45% to I-80 southbound. Figure 11 compares existing traffic to existing plus project traffic. According to Caltrans signal warrants, a traffic signal will not be warranted at the McBryde/Amador intersection upon completion of the project.

b. Parking Areas

The two proposed parking areas included in the LUDP for Alvarado Park, located across Wildcat Creek from Park Avenue, include the group picnic parking area containing 60 spaces near the former pavilion, and overflow parking situated on a section of the former Wildcat Creek Parkway. These parking areas are expected to be adequate for normal levels of activity at WCRP. Additional parking is available on-

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[2] Trip Generation Research Counts, 12th Progress Report, Department of Transportation, State of California, December 1979.

street near the project site (and during periods of heavy holiday or weekend use, these street areas may be used). No additional parking is needed or proposed for the southern end of WCRP.

c. Public Transportation

There is no provision in the LUDP for any alteration in existing public transit access, and the majority of users of WCRP will continue to travel to and from the park by private automobile. This implies a higher energy consumption and level of pollutants that would otherwise occur from mixed transit use. The extension of AC Transit service to the EEC in the summer is paid for by the District to encourage more public transit use.*

3. Community Services

Setting:

Municipal water supplied by EBMUD water lines is available along some portions of WCRP's west side. A line along Canon Drive supplies water south of WCRP, while the water line under McBryde Avenue serves Alvarado Park to the north. A four-inch water line extending into Wildcat Canyon Park along Rifle Range Road does not presently serve any facility. No water service is available on the eastern side of WCRP.

Electricity and telephone service exist at the Environmental Education Center and Alvarado Park. The old pavilion building site in Alvarado Park is served by a natural gas line and sewer lines. One of these lines crosses Wildcat Creek by the bridge connecting to Casino Avenue. The second line extends along Park Avenue and Marin Avenue. These lines are under the jurisdiction of the West County Sanitary District, and connect to the West Contra Costa County Sanitary District Water Pollution Plant on Garden Tract Road to the west. Both the plant and the lines have available capacity. All other sanitary facilities within WCRP are either chemical toilets or subsurface holding tanks emptied periodically.

Impacts and Mitigation:

The incorporation of Alvarado Park, with its frequently-used picnic and camping facilities, will result in increased water demand and wastewater flow within the Regional Park boundaries. However, since the majority of Alvarado Park visitors can be expected to be residents of EBMUD's service area, this water use within WCRP may not represent an increase in the overall demand for water within EBMUD service areas.

Due to the limited scale of development indicated by the LUDP -- primarily at Alvarado Park -- any increased water and wastewater flow from future park use is likely to be modest. The Land Use Development Plan includes the renovation of the restroom building at the site of the former Pavilion to provide sanitary facilities. Group camping at the existing two permanent camps -- the Girl Scout Camp and Primitive Camp -- would occur on a reservation basis only, assuring manageable rates of water demand and sewage disposal needs. Total increased demand for irrigation and sanitary facilities at Alvarado Park is estimated at 20,000 gallons per week. Not all of this usage will represent an overall increase in demand upon EBMUD supplies, as the majority of WCRP users can be expected to be residents of the EBMUD service area.

Additions or improvements to supervised park programs such as interpretive talks, nature walks, and youth day camping, represent minor increases in the demands placed upon the provision of community services such as water, sewerage, energy and electricity. However, the addition of Alvarado Park will entail the need for increased services by EBRPD police and other personnel to respond to community concerns regarding park safety and law enforcement. Assumption of these duties by permanent Park personnel -- operating out of the proposed ranger office at the former Pavilion -- may result in a decreased need for City police or County sheriff's patrols at this site.

The implementation of the LUDP may result in the following impacts on community services summarized below together with the mitigation measures which are available for reducing the significance of the impacts to an acceptable level.

°Increased need for EBRPD police services with the inclusion of Alvarado Park within WCRP.	Mitigation: Invoke mutual aid agreement with City of Richmond, City of San Pablo, Contra Costa County Sheriff's Department.

4. Archaeological/Historical

Setting:

Wildcat Canyon Regional Park contains a number of cultural sites. Recent reconnaissance by qualified archaeologists confirmed the presence of three prehistoric shellmounds located within Alvarado Park (Holman et. al., 1983). Each site is located at least partially underneath picnic facilities. The investigation failed to locate a fourth prehistoric site, recorded near Jewel Lake some time ago; this site may have been destroyed by the construction of the lake.

Sites of interest within WCRP (although none now qualify for inclusion on state or federal registers of historic sites) include the U.S. Civilian Conservation Corps Camp established in 1934 south of Jewel Lake, the former Belgum Sanitarium facilities located above Wildcat Creek, and former cattle rancher residences. (For location of these sites, see Figure 4, Wildcat/Tilden Regional Parks Resource Analysis, pg. 11.)

Impacts:

The Project does not include future development of the historic sites listed in the Resource Analysis. In order to protect the three archaeologic sites within Alvarado Park, the Land Use Plan includes the closure of all picnic sites directly over these prehistoric shellmounds, and the closure of trails passing through them (LUDP, pg. 34).

Mitigation: Retain the services of qualified archaeologists to inspect the excavation of all facilities within 100 feet of the pre-historic sites.*

5. Energy

Setting:

Fuel energy is used by park patrol vehicles, maintenance vehicles and equipment, and by park visitors who travel to and from the park. Trash is collected and transported out of the park, as is sewage generated by facilities at the Environmental Education Center. Electrical energy is used for illumination, other uses at the EEC, and to pump water to the park. † There is no reliable way to estimate the amounts of energy involved.

Impacts:

The LUDP will result in additional use of energy in quantities that are not capable of quantification, including the following:

°Increased consumption of energy required in operating the new residence and interpretive facilities at Alvarado Park.	Mitigation: Incorporate energy conservation features into the designs for these facilities, including solar heating for domestic water and other equipment and features. These measures will be considered as part of capital improvement plans.*

† Although not within WCRP boundary, discussions of this area is included because of its relevance to WCRP's operations and/or impacts.

°Use of energy to construct new facilities (roads, trails, bridges, etc.) and to remove old structures, such as culverts, etc.

Mitigation: None available.

°Use of energy to dredge Jewel Lake.

Mitigation: None available. Alternatively, delete plans to dredge Jewel Lake. See pages 59 and 60 for discussion of this option. †

6. Visual

Setting:

The complex geologic history of the Wildcat Canyon region has created several striking landforms. The dominant topographic features are San Pablo Ridge, Wildcat Canyon and the crestline of Berkeley Hills. San Pablo Ridge averages somewhat higher elevations than the Berkeley Hills, offering panoramic views of the Bay Area. The topography of Wildcat Canyon ranges from broad and gentle slopes to relatively steep and narrow gorges at the southern end of the park. Additional topographic features including Belgum, Havey, and Laurel Canyons -- provide isolated visual impressions for hikers and equestrians.

The vast majority of Wildcat Canyon Park is covered with a variety of natural grasslands, brushland and riparian woodlands.

Impacts:

The preservation of WCRP's near-natural state as outlined under the LUDP's long-range goals and policies would not adversely affect the visual character of the park.

Dredging operations at Jewel Lake will have a temporary negative visual impact. The impact will be caused by the disruptive views of dredging equipment and operations in an area that is natural-appearing and expected by visitors to be natural-appearing. In addition, views of desilting basins and dredge spoils prior to final grading and planting will have a negative impact on an otherwise natural-appearing context. †

Mitigation:

As a result of dredging, 6,000 to 10,000 cubic yards of dredge spoils will be deposited in a gently sloping area approximately 1,500' north of Jewel Lake, creating an earth fill equal in volume to a one acre area 5' deep. Additional dredging would

† Although not within WCRP boundary, discussions of this area is included because of its relevance to WCRP's operations and/or impacts.

occur at 3- to 5-year intervals to maintain the planned minimum pool of water in Jewel Lake. The spoil disposal site should be graded to blend into the surrounding environment, seeded with grasses and planted with native trees.* †

D. IMPACT OVERVIEW

1. Unavoidable Adverse Impacts

The following adverse effects appear to be unavoidable if the proposed LUDP/NRMP is carried out for Wildcat Canyon Park. These assessments of impact assume that feasible mitigation measures identified as part of the Project will be implemented.

- °Potential increases in erosion following construction of new hiking and riding trails, continued use of cattle grazing for vegetation management, and potential increases in public use of WCRP facilities;

- °Possible escape from control of prescribed fire set as part of vegetation management policies.

- °Noise, pollution, visual disturbance and possible erosion from periodic dredging of Jewel Lake; †

- °Increased consumption of construction materials and energy for the maintenance of Canon Drive, as well as dredging of Jewel Lake; †

- °Use of energy to remove a functional culvert and earth fill and replace with a bridge at Wildcat Creek and Wildcat Canyon Parkway.

- °Increase in traffic volumes on roads leading to park entrances and access points resulting from long-term growth in park use.

2. Irreversible Environmental Changes

The provisions of the LUDP for constructed improvements in WCRP are such that it is unlikely that any of these changes would be irreversible. Any of the LUDP's provisions that involve grading activity will result in changes that are irreversible in character.

3. Short-Term Use Versus Long-Term Productivity

The LUDP does not reduce the long-term environmental quality or productivity of the site. The proposed uses of the land would

† Although not within WCRP boundary, discussions of this area is included because of its relevance to WCRP's operations and/or impacts.

maintain and improve the productivity of the site. Alternative future uses of the site would not appear to be precluded by the Project.

4. Growth-Inducing Effects

The LUDP will not have significant growth-inducing impact.

5. Cumulative Impacts

Cumulative effects are defined as two or more separate effects that, when considered together, are significant, or that compound or increase other environment impacts (California Public Resources Code, Section 15355).

- Increased financial resources would be used by the EBRPD in carrying out the LUDP due to the transfer of responsibility for Alvarado Park from the City of Richmond to the EBRPD, and the specific provisions of the LUDP. The primary aspects of the LUDP/NRMP that would require financial outlays are: The maintenance of Canon Drive, the dredging of Jewel Lake, the improved vegetation, water and wildlife management and protection programs, the commencement of long-range environmental studies, and the improvement of parking, trails, camps and picnic sites.

- Increased and more effective protection of vegetation, wildlife and water resources would be expected as a result of the long-term ecological studies and enhanced levels of program efforts included in the LUDP.

- The combination of the transfer of responsibilty for Alvarado Park to the EBRPD, reduction of the number of picnic sites in Alvarado Park. Provision of off street parking within Alvarado Park, and the additions and improvement in trails and camps in the natural section of WCRP might be expected to alter the character of Alvarado Park from that of a more locally-oriented semi-urban park to that of a staging area and entrance for a more regionally-oriented, near-natural park.

E. ALTERNATIVES

Four alternatives have been defined for evaluation as a basis for comparison with the LUDP-NRMP identified as the Project. These are described below in terms of the nature and character of their respective development and natural resource management provisions, the types of adverse impacts each would have on the environment, and the extent to which each appears to present superior features in comparison with the Project.

1. The No-Project Alternative

a. Description:

The No-Project Alternative would leave the operation and management of WCRP under the direct supervision of the District Board, without a LUDP to provide a structured basis for decision-making according to an adopted plan. The boundaries of WCRP would continue in their present locations, and would exclude Alvarado Park and the 200 acres at the northern end of Tilden Regional Park.

b. Impact Comparison:

None of the actions contained in the LUDP relating to enhancement of or additions to the recreational opportunities afforded by WCRP (such as camping sites, trails, etc.) would be implemented, in addition the activities identified in the NRMP relating to minimizing erosion, sedimentation, water quality degradation, and the effects of land sliding on unstable slopes, or protecting or enhancing habitat values for rare/endangered species, or managing vegetation would be defined as part of a coordinated program of land management.

Following is a list of potential impacts upon WCRP from the project and the alternative.

Adverse Project Impacts Not Found in Alternative	Adverse Alternative Impacts Not Found in Project
Geology	
Erosion resulting from the use of picnic and group camp areas.	Erosion from increased vegetation loss due to cattle grazing.
Collapse of bridges crossing the Wildcat Fault rupture zone (two existing and one new bridge).	Erosion from cattle on Wildcat Creek Trail.
	Erosion from untreated earthslides.
Destruction of existing impoundment dams located within the Wildcat Fault rupture zone.	Continued existence of paving along Wildcat Canyon Parkway creates uncontrolled but concentrated water, increasing risk of slides and erosion.
Erosion of disposal area for silt dredged from Jewel Lake.†	

† Although not within WCRP boundary, discussions of this area is included because of its relevance to WCRP's operations and/or impacts.

Adverse Project Impacts Not Found in Alternative	Adverse Alternative Impacts Not Found in Project
Rupture of sewer line and pollution of creek in the event of major seismic occurrence.	
Possible placement of dredge spoils/silt on old landslides, with water infiltration promoting reactivation of slide.†	
Hydrology	
Decline in the water quality of Jewel Lake during the dredging operations. †	Decline in water quality in Wildcat Creek from unrestricted access to Wildcat Creek by cattle and horses.
Decline in the water quality of Wildcat Creek due to erosion from silt disposal area. †	Decline in water quality in Wildcat Creek from uncontrolled siltation.
Potential destruction of proposed development/redevelopment of picnic areas in Alvarado Park Recreation Unit located in the flood plain.	Decline in water quality from lack of long-term Water Management Plan.
	Decline in water quality resulting from continuing erosion at the end of the Jewel Lake spillway, which threatens both the dam and the road. †
Vegetation	
Invasion of brush into grassland areas near Wildcat Creek that are removed from grazing.	Uncontrolled spread of artichoke thistle and other exotic plants.
Potential escape of prescribed fire.	Continued invasion of brush into grassland in areas that are not grazed.
	Continued threat of major uncontrolled fire from unmanaged vegetation areas.

† Although not within WCRP boundary, discussions of this area is included because of its relevance to WCRP's operations and/or impacts.

Adverse Project Impacts Not Found in Alternative	Adverse Alternative Impacts Not Found in Project
Wildlife	
The potentially adverse effect upon aquatic animals and wildlife of degradation of water quality resulting from dredging of Jewel Lake or disposal of spoils within the watershed. †	Continued increase of feral animals with negative impacts on "native" wildlife and on park users.
Air Quality	
Prescribed burning to control fuel loadings in brushland areas may create potentially adverse air quality impacts.	Potential air quality problem from uncontrolled wildfires.
Transportation	
Slight increase in traffic at the north end of the park.	Potential congestion in parking and access to the north end of the park because of lack of facilities.
Community Services	
Increased demand for irrigation and sanitary facilities at Alvarado Park, estimated at 20,000 gallons per week. Increased need for EBRPD police services with the inclusion of Alvarado Park within WCRP.	No increase or improvement of recreation opportunities to the public.
Energy	
Use of energy to construct new facilities (roads, trails, bridges, etc.) and to remove old structures, such as culverts, etc.	

† Although not within WCRP boundary, discussions of this area is included because of its relevance to WCRP's operations and/or impacts.

Increased consumption of energy required in operating the new residence and interpretive facilities at Alvarado Park.

Use of energy to dredge Jewel Lake. †

Visual

Temporary visual impact of dredging at Jewel Lake. †

Gradual elimination of Jewel Lake by siltation as a positive visual feature in the Park.

Continued adverse visual impact of untreated earth slides.

c. Evaluation:

This alternative would not lead to greater public enjoyment of the area within WCRP, and the occurrence of degradation of its physical resources would continue without intervention. This alternative would not have superior effects upon the natural environment or on the human use of WCRP's resources. It would have a negative impact on efforts to integrate erosion control, grassland preservation and fuel management/fire prevention planning. It is not proposed for selection as an environmentally superior alternative in comparison to the LUDP/NRMP.

2. Regional Wilderness Alternative

a. Description:

One alternative to the LUDP/NRMP is the development of Wildcat Canyon as a regional park, with qualities similar to those in a Regional Wilderness. Under standards established in the District Master Plan for minimum size and environmental quality, Wildcat Canyon is not suitable for designation as a Regional Wilderness. Under this alternative, WCRP would be considered as a park with no recreation units. See Figure 12. This regional wilderness alternative would not include the following provisions of the LUDP/NRMP, but would be otherwise similar to the LUDP/NRMP.

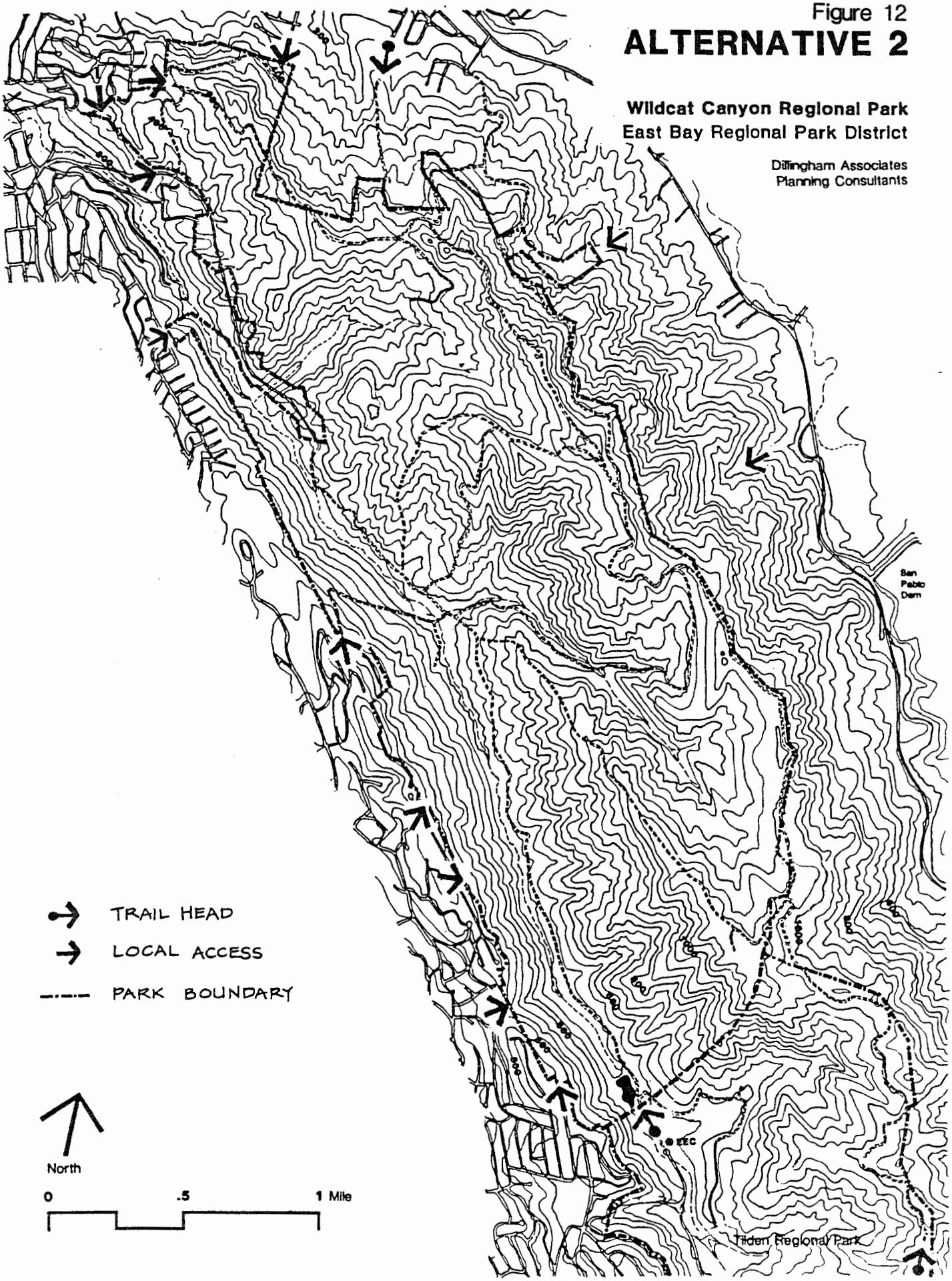
† Although not within WCRP boundary, discussions of this area is included because of its relevance to WCRP's operations and/or impacts.

Figure 12

ALTERNATIVE 2

Wildcat Canyon Regional Park
East Bay Regional Park District

Dillingham Associates
Planning Consultants



°Alvarado Park would remain a separate facility and be operated by the City of Richmond. It would not serve as a staging area for Wildcat Canyon Regional Park. The following construction/development would not happen as a part of this plan: Reconstruction of picnic and youth camp facilities; provision of a ranger residence/office, restrooms, interpretive facilities, parking areas, and protection of archaeological sites. No Urban Threshold Park facility would be developed.

b. Impact Comparison:

Following is a lise of potential impacts upon WCRP from the project and the alternative.

Adverse Project Impacts Not Found in Alternative	Adverse Alternative Impacts Not Found in Project
Geology	
Collapse of bridges crossing the Wildcat Fault rupture zone (two existing and one new bridge).	
Rupture of sewer line and pollution of creek in the event of major seismic occurrence.	
Hydrology	
Potential destruction of proposed development/redevelopment of picnic areas in Alvarado Park Recreation Unit located in the flood plain.	
Wildlife	
Decrease of feral animals with positive impacts on "native" wildlife and park users.	

Adverse Project Impacts Not Found in Alternative	Adverse Alternative Impacts Not Found in Project
Transportation	
Slight increase in traffic at the north end of the Park.	Potential congestion in parking and access to the north end of the Park because of lack of facilities.
Community Services	
Increased demand for irrigation and sanitary facilities at Alvarado Park, estimated at 20,000 gallons per week.	Lack of development in Alvarado Park would not provide recreation facilities and adequate staging area for Richmond area visitors.
Increased need for EBRPD police services with the inclusion of Alvarado Park within WCRP.	
Energy	
Use of energy to construct new facilities (roads, trails, bridges, etc.) and to remove old structures, such as culverts, etc.	
Increased consumption of energy required in operating the new residence and interpretive facilities at Alvarado Park.	

The major difference in environmental impacts between this alternative and the project relates to the project's redevelopment of Alvarado Park and its inclusion in WCRP. While potential geologic and other impacts at Alvarado Park have been eliminated by this alternative. The recreation facility and resource at Alvarado Park has also been eliminated.

c. Evaluation:

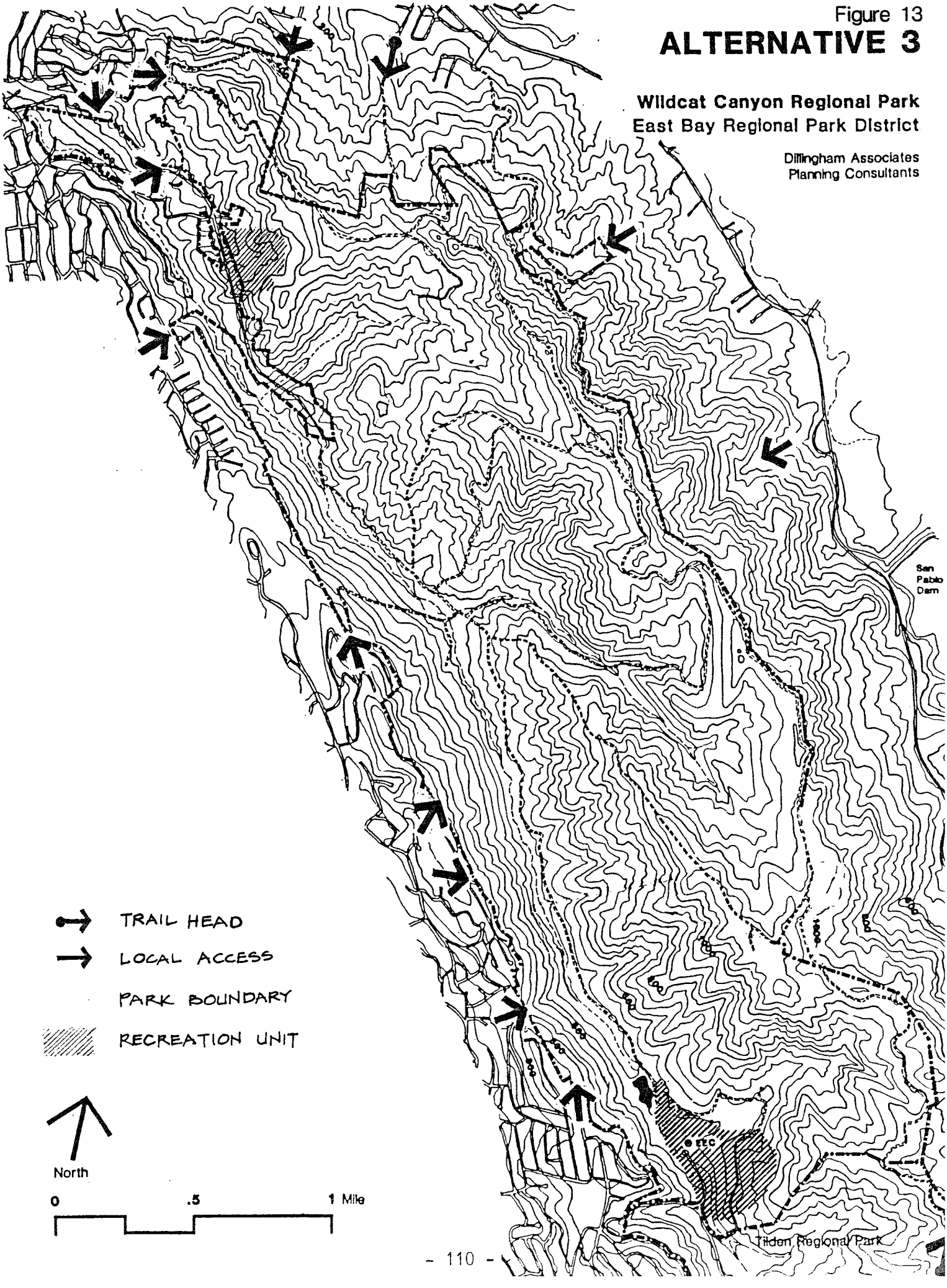
This alternative was not selected because its environmental advantages over the project were outweighed by the positive recreation benefits from redevelopment of facilities for staging, picnic and nature interpretation and inclusion of Alvarado Park in WCRP.

Figure 13

ALTERNATIVE 3

Wildcat Canyon Regional Park
East Bay Regional Park District

Dillingham Associates
Planning Consultants



3. Reconfigured LUDP Alternative

a. Description:

This alternative would contain all the provisions of the LUDP/NRMP but would differ in the following items:

- °Alvarado Park would remain a separate and distinct facility under the jurisdiction of the City of Richmond. Instead a north staging area would be located at the Belgum Sanitarium site.

b. Impact Comparison:

The impacts resulting from this alternative would be similar to those resulting from the LUDP/NRMP but would differ in the following ways:

1) Belgum Sanitarium site recreation unit: Accommodation of similar numbers of picnic sites would result in change of an area with minimal existing development, although exhibiting remains of its former use as a sanitarium. Vehicular access to this site would require either access through a narrow, winding, residential street with much disruption of the neighborhood, or an expensive renovation of a portion of Wildcat Canyon Parkway through an area with a past history and likely future of earth sliding. Facilities at the Belgum Sanitarium site would not offer the visual and stream amenities of Alvarado Park.

Following is a list of potential impacts upon WCRP from the project and the alternative.

Adverse Project Impacts Not Found in Alternative	Adverse Alternative Impacts Not Found in Project
Geology	
Collapse of bridges crossing the Wildcat Fault rupture zone (two existing and one new bridge).	Erosion from development and use of a site that is currently uneroded.
Potential destruction of existing impoundment dams located within the Wildcat Fault rupture zone.	Erosion of areas adjacent to the Belgum Staging Area from increased trail and other recreation use.

Adverse Project Impacts Not Found in Alternative	Adverse Alternative Impacts Not Found in Project
Rupture of sewer line and pollution of creek in the event of major seismic occurrence.	Possible staging area access route crossing a major earthslide zone with on-going liability, construction and management problems. The site of the Belgum Staging Area is located in the path of several inactive earthslides. New development may reactivate these slides.
Hydrology	
Greater human impact on Wildcat Creek at Alvarado Park in the form of erosion of banks, sedimentation and diminution of water quality from incidental pollution. Potential destruction of proposed development/redevelopment of picnic areas in Alvarado Park Recreation Unit located in the flood plain.	
Vegetation	
	Greater invasion of brush into grasslands in areas around the Belgum Staging Area because of curtailed cattle grazing. Introduction of more human use near an existing site of jeopardized plants.
Transportation	
	Introduction of visitor traffic along a narrow, winding residential street or along a roadway with substantial earthslide problems.

Adverse Project Impacts Not Found in Alternative	Adverse Alternative Impacts Not Found in Project
Community Services	
Increased demand for irrigation and sanitary facilities at Alvarado Park, estimated at 20,000 gallons per week. Because of smaller available site at Belgum Sanitarium, development would be less intense and demand less water.	
Increased need for EBRPD police services with the inclusion of Alvarado Park within WCRP. Belgum site is more isolated and would probably have fewer problems.	
Energy	
	More use of energy for the Belgum site development in order to construct new facilities (roads, trails, bridges, etc.) and to remove old structures, such as culverts, etc.
Visual	
	No visual feature at Belgum site such as creek in Alvarado Park.
	Greater visual impact of Belgum Staging Area upon park because that site is surrounded by Park areas and is less wooded and more exposed.

c. Evaluation:

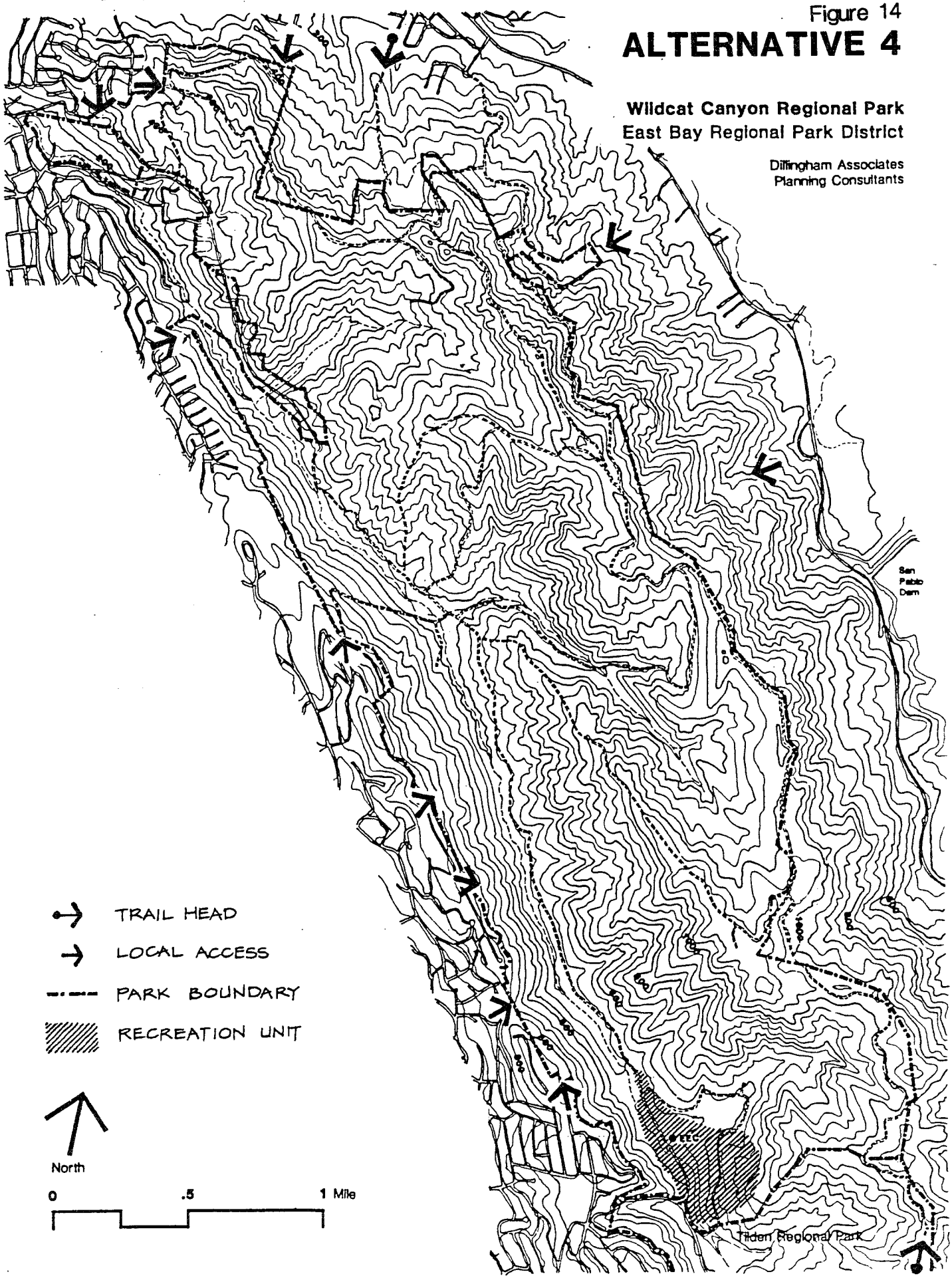
This alternative was not selected because it has greater environmental impacts. In addition, development of a staging area in Belgum Sanitarium would have more access problems and be more limited in size and amenities in comparison with a staging area at Alvarado Park.

Figure 14

ALTERNATIVE 4

Wildcat Canyon Regional Park
East Bay Regional Park District

Diffingham Associates
Planning Consultants



4. Reduced Scale LUDP Alternative

a. Description:

The reduced scale alternative would contain all the provisions of the LUDP/NRMP, but would not include the following components:

- °Alvarado Park would remain a separate and distinct facility under the jurisdiction of the City of Richmond. It would not be part of WCRP, and would not serve as a formal staging area for the natural areas of WCRP.

- °Jewel Lake would not be dredged on a periodic basis, no silt disposal issues would be raised, the Lake would continue to receive sediment from its drainage basin, and in time would become a riparian wood with a braided stream.

- °The Little Farm would be moved to another area in a different unit in the Regional Park system more suited to its operation and requirements, or deleted entirely from the facilities provided by the EBRPD system.

All of the other provisions of the LUDP located within the boundaries of WCRP (expanded to include the 178 acres of Tilden Regional Park, including the "Tilden" Nature Area Educational Use unit and the EEC recreation unit) would remain the same as indicated in the LUDP. All trails, campsite, Special Protection Units, and vegetation management activities would remain unchanged.

b. Impact Comparison:

The impacts of this Reduced Scale Alternative would be the same as those resulting from the LUDP, except that the effects of assuming control over the operation of Alvarado Park, and carrying out the reconstruction of picnic and youth camp facilities, providing a ranger residence/office, restrooms, interpretive center, parking areas and the other improvements indicated would not occur. WCRP would have no formal staging area in this location, and no provision would be made to develop an urban threshold park in the area. The issues of noise, energy usage, possible erosion and landslide activation from silt disposal, possible water quality degradation and visual impacts resulting from periodic dredging of Jewel Lake would be avoided. At the same time the opportunity to retain what many park users view as an attractive amenity and "natural" feature will not be taken. The sediment loads now captured by the lake, and in large part prevented from entering Wildcat Creek,

Adverse Project Impacts Not Found in Alternative	Adverse Alternative Impacts Not Found in Project

would ultimately impact downstream sections of the Creek if the Lake ceased to exist as a sediment retention basin. The discontinuance of the Little Farm would remove a source of pollutants that can affect downstream water quality, an odor source, and a facility which demands substantial staff resources. It is, however, one of the most popular features of the recreation unit, particularly for young children, and is a valuable educational resource in an urban area.

Following is a list of potential impacts upon WCRP from the project and from the alternative.

Adverse Project Impacts Not Found in Alternative	Adverse Alternative Impacts Not Found in Project
Geology	
Collapse of bridges crossing the Wildcat Fault rupture zone (two existing and one new bridge).	
Destruction of existing impoundment dams located within the Wildcat Fault rupture zone.	
Erosion of disposal area for silt dredged from Jewel Lake.	
Collapse of Jewel Lake Dam in the event of major ground shaking.	
Rupture of sewer line and pollution of creek in the event of major seismic occurrence.	
Possible placement of dredge spoils/silt on old landslides, with water infiltration promoting reactivation of slide.	

Adverse Project Impacts Not Found in Alternative	Adverse Alternative Impacts Not Found in Project
Hydrology	
Decline in the water quality of Jewel Lake during the dredging operations.	Greater transfer of sediment loads to downstream areas of Wildcat Creek after Jewel Lake is silted-in.
Decline in the water quality of Wildcat Creek due to erosion from silt disposal area.	
Decline in water quality resulting from runoff from the existing Little Farm.	
Potential destruction of proposed development/redevelopment of picnic ares in Alvarado Park Recreation Unit located in the flood plain.	
Vegetation	
	Elimination of some riparian vegetation associated with Jewel Lake.
Wildlife	
The potentially adverse effect upon aquatic animals and wildlife of degradation of water quality resulting from dredging of Jewel Lake or disposal of spoils within the watershed.	The elimination of a pond environment/habitat and thus, the elimination of some animal species from the Park.
Transportation	
Slight increase in traffic at the north end of the Park.	Inadequate parking and access facilities to accommodate recreation demand at the Park's north end.
Community Services	
Increased demand for irrigation and sanitary facilities at Alvarado Park, estimated at 20,000 gallons per week.	Fewer recreation facilities for public use. No "Urban Threshold" Park.

Increased need for EBRPD police services with the inclusion of Alvarado Park within WCRP.

Energy

Use of energy to construct new facilities (roads, trails, bridges, etc.) and to remove old structures, such as culverts, etc.

Increased consumption of energy required in operating the new residence and interpretive facilities at Alvarado Park.

Use of energy to dredge Jewel Lake.

Visual

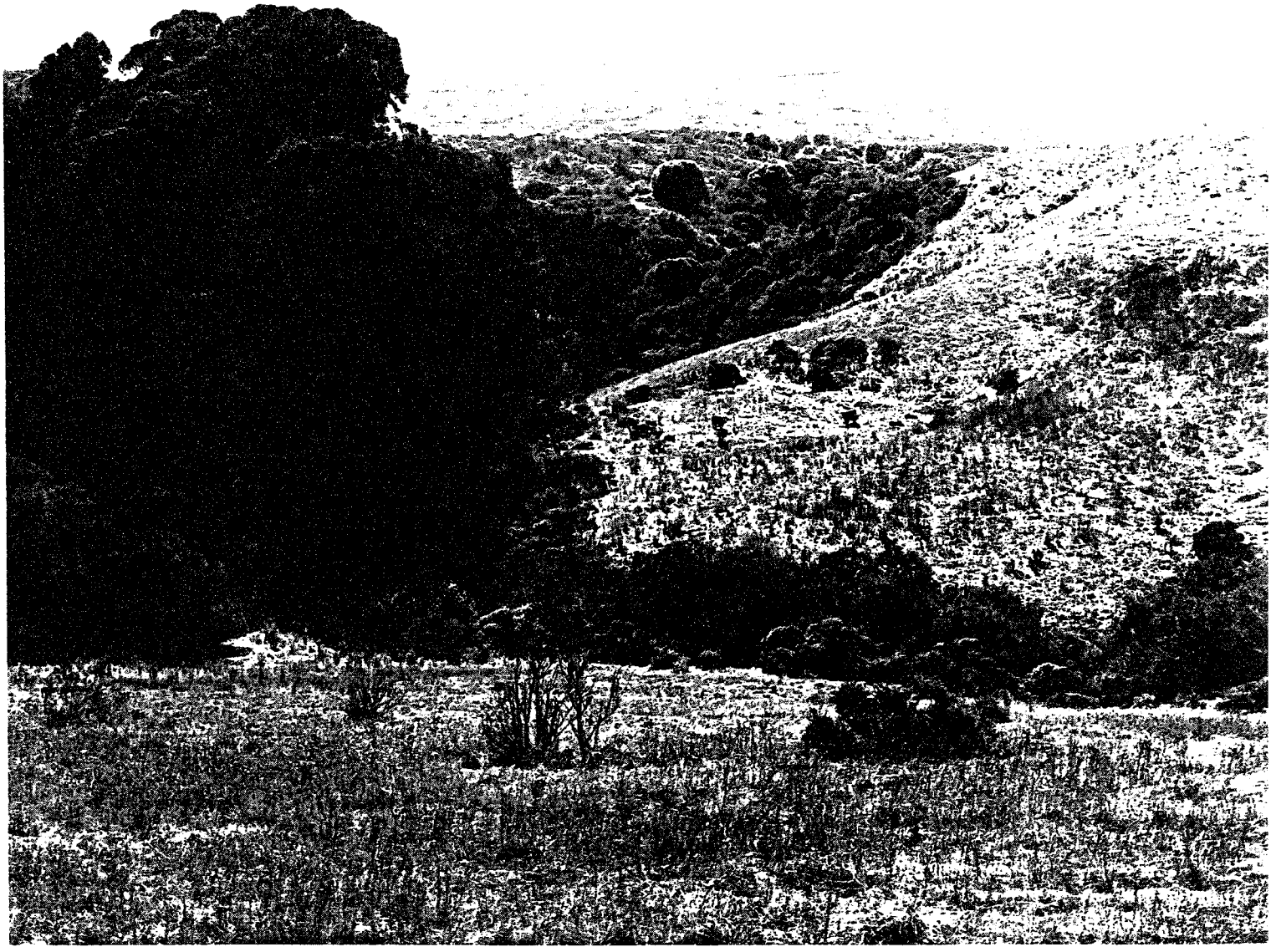
Temporary visual impact of dredging at Jewel Lake.

Gradual elimination of Jewel Lake as a positive visual feature in the Park.

c. Evaluation:

This alternative was not selected, even though it offers lower levels of risk of impact generation than the LUDP and is therefore environmentally superior. The exclusion of significant facilities and features of the LUDP would represent a passive approach to the implementation of the EBRPD functions and purposes, that appears likely to serve its public constituents less satisfactorily than is required or desirable. Existing recreation and visual amenities proposed to be eliminated under this alternative are among the most popular in the District.

VI. PLAN PREPARATION, CONSULTATION AND REFERENCES



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California Department of Forestry
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California Office of Planning and Research
City of Berkeley Community Development Deparment
City of Berkeley Fire Department
City of Berkeley Planning Department
City of El Cerrito, Community Development Department
City of El Cerrito Fire Department
City of El Cerrito Park and Recreation Commission
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Contra Costa County Flood Control District
Contra Costa County Planning Department
East Bay Municipal Utility District
Native American Heritage Commission
San Francisco Bay Regional Water Quality Control Board
State of California Clearinghouse, Sacramento
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Tri Cities Horsemen, Bill Stone, San Pablo.
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Womens Group of Orinda, Janet Manfield, Berkeley.
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NEWS

City of El Cerrito Library, El Cerrito.
Contra Costa Times, Walnut Creek.
Daily Californian City Desk, Berkeley.
Ecology Center Newsletter, Berkeley.
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San Francisco Chronicle, Oakland.
San Francisco Examiner, Oakland.
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The Montclarion, Oakland.
The San Leandran, San Leandro.

E. REFERENCES

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Friends of Wildcat Canyon, Wildcat Canyon.

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VII. APPENDIX

VII. APPENDIX - PUBLIC COMMENTS AND RESPONSES

On Thrusday, August 29, 1985 over 60 people attended the Wildcat Canyon LUDP/EIR public hearing. Besides the City of Richmond and District staffs, those who signed-in represented themselves as concerned neighbors. The following is a summary of comments voiced and corresponding responses:

	Comment	Response
1.	Dogs should be allowed in WCRP with voice-control without leash requirement.	The issue was addressed on page 74.
2.	What is EBRPD reaction to T.C.I. proposal for cablevision improvement?	EBRPD will work with City of Richmond in reviewing T.C.I.'s proposal.
3.	Canon Drive is potentially dangerous with no trail, sidewalk or shoulder. In addition, there is increasing traffic.	District recognizes the inadequacy of Canon Drive and will work with Contra Costa County, City of Berkeley to provide a more safe pedestrian access. The LUDP, however, does not cause any increase in traffic; see page 94.
4.	What is the impact of landslides on homes at Quail Court and what plans are there for repair?	The slide problem is on-going. The District is willing to work with property owners.
5.	The LUDP lacks fuel-break and landslide management plans.	No action or definite management plans can be taken pending the conclusion of the geological study by Paul Seidleman & Associates; see page 64, 1st paragraph.
6.	Trail along Belgum Canyon is undesirable and will spoil an undisturbed area of the Park.	The trail is deleted from the LUDP.
7.	There is need to study the effects of backpacing and horses on campgrounds.	Park staff will monitor the sites' carrying capacity; see page 51.
8.	There is raw sewage overflowing down the street from Villa Mira Vista sanitary sewer.	District will alert City of Richmond to this condition.

9. Recreation and park use demand studies cited were done in '73 and '76. Data may be obsolete and irrelevant.	There is no current study available. The '73 and '76 data may be old, but there is no reason to believe that it is invalid.
10. Parking lot should not be based on peak maximum use. Occassional on-street parking is O.K.	Based on experience of the District and other parks, planners feel that overflow parking is needed. From time to time there will still be on-street parking required since the proposed overflow parking would not meet peak parking demand.
11. Culverts under Wildcat Canyon Parkway are subject to plugging and should be removed and replaced with a foot bridge instead of the vehicular bridge.	Plugging of culverts has not been identified in Flood Control Studies by Army Corps of Engineers and Contra Costa County Flood Control District as a significant flooding danger. The size of the culverts makes plugging extremely unlikely. Culverts have been sized to accommodate maximum rainfall/flooding conditions.
12. There will be too great an impact from camping.	Staff will monitor and rotate the use of the sites depending upon their carrying capacity; see page 51.
13. Negative grazing impacts are not addressed. Cattle should be eliminated or minimized.	Long-term impacts of managed grazing are not adverse as management methods are available to avoid significant adverse impacts.
14. There should be on-going role for the task force in plan implementation.	This role is already fulfilled by the Board Operations Committee and the Richmond/EBRPD Liaison Committee.
15. Study does not reflect proposed changes in I-80 ramps. There will be increased traffic on Marin and Riverside Avenues and severe negative impact on residents.	EIR was revised to reflect the proposed I-80 ramp improvement. The traffic impacts are within the capacity of the local streets.

16. How is motorcycle use controlled?	It is against Park policy to allow motorcycle use at WCRP. Steps will continue to be taken to enforce this restriction.
17. There should be continuing public involvement in detail planning for Alvarado Park.	This issue was addressed; see page 46.
18. There is concern about drug use and other illegal activities at Alvarado Park.	Increased police service needs are addressed on page 98. Increased staffing is proposed; see page 47. Locked gates and the elimination of parking off Park Avenue will discourage illegal activities.
19. Several parcels along creek at Alvarado Park should be acquired and developed.	District is investigating this with cooperation from City of San Pablo.
20. How is pedestrian access to Alvarado from Marin Avenue at Casino treated?	Existing bridge is condemned and on-grade path is eliminated to protect park resources.
21. Signing at north end of Park for public access is inadequate.	District will incorporate this in capital improvement programs.
22. Overflow parking is not necessary and attracts the 'wrong' people who use it as a hang-out.	See #10 for need of overflow parking. The parking lot will be locked when not in use.
23. More staff is needed to operate expanded Park facilities.	The need was addressed on page 47.
24. Parkway should be narrowed to trail width -- less paving.	See #10 for need of overflow parking. See page 44, 2nd paragraph.
25. How about providing a picnic area at the foot of Rifle Range Road?	Previous picnic areas were removed due to the potential hazard to adjacent homes of a wildfire which might be started accidentally at that location.
26. Artichoke thistle should be controlled.	This issue was addressed on page 62.
27. More improvements/picnic areas at Alvarado Park are needed.	The plan was revised to include more picnic tables. See pages 34, 35.

Frank & Janet Forsburg
601 Canon Drive.,
Kensington, CA 94708
525-5731

August 27, 1985

Mr. Peter Koos
Sr. Landscape Architect
East Bay Regional Park District
11500 Skyline Blvd.,
Oakland, CA 94619

SUBJ: WILDCAT CANYON REGIONAL PARK
TILDEN NATURE AREA
ALVARADO PARK
Draft Land Use-Development Plan/
Environmental Impact Report

Dear Mr. Koos:

It is our understanding, under this proposed plan, you intend closing Central Park Drive and use Canon Drive for the principal access to the Tilden Nature Area.

Canon Drive is, at best, a rural road with minimal lane width and no sidewalks. Transit busses are now coming down the road at unsafe speeds and are taking up the whole road. In the residental area, autos are parked on the edge of the road, thus reducing the effective width for traffic. There are no sidewalks for pedestriens and hikers and, particularly on weekends, there are hazardous conditions for them as well as drivers. In the section below the residential area, the slides have reduced the effective width of the road to less than that required for autos to pass, much less transit busses.

We, as well as our neighbors, enjoin you to reconsider the closing of Central Park Drive thus putting an inordinate traffic load on Canon Drive. Much better to have traffic routed on roads made for heavy traffic use such as Wildcat Canyon Road and Central Park Drive.

Very truly yours,

Frank & Janet Forsburg

East Bay
Regional Park District

11500 SKYLINE BOULEVARD, OAKLAND, CALIFORNIA 94619 TELEPHONE (415) 531-9300

September 10, 1985

Frank & Janet Forsburg
601 Canon Drive
Kensington, CA 94708

SUBJECT: Wildcat Canyon Regional Park
Land Use Development Plan/EIR

Dear Mr. and Mrs. Forsburg:

Thank you for your letter dated August 27th, 1985 regarding above subject. Please be assured that the plan does not call for closing Central Park Drive. We are aware of the less than adequate conditions for access on Canon Drive and will continue to work with the City of Berkeley and the County to make pedestrian access safer.

Should a future major slide affect Central Park Drive, the District will consider doing everything possible to provide safe and adequate access to the Tilden Nature Area.

Thanks again for your interest and taking time to respond to the document. Should you have any other concerns, please do not hesitate to call me on Extension 224.

Sincerely,

Peter Koos

Peter Koos
Senior Landscape Architect
Planning and Design Department

PK:cp

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September 3, 1985

606 Canon Drive

Kensington, CA. 94708

Peter Koos

Sr. Landscape Architect

East Bay Regional Park District

11500 Skyline Blvd.

Oakland, CA. 94619

Dear Mr. Koos:

As residents of Canon Drive, my family and I are greatly disturbed by an item contained in the Draft Land Use-Development Plan/Environmental Impact Report. Although we were unable to attend the hearing on August 29th, we would like to make known our feelings regarding the closing of Central Park Drive and the diversion of all Park-bound traffic to the Nature Center, Pony Rides, and meadow onto Canon Drive. There is already more than enough traffic on Canon Drive! On weekends and holidays, our once quiet little residential street resembles a drag strip. It is no longer safe for children (or adults, for that matter) to walk up the hill to Spruce and Grizzly because of this traffic, and we find the resulting noise and dust extremely annoying. As homeowners we are also greatly disturbed by the possibility that the diversion of any more traffic onto Canon Drive will lower the value of our property. We believe that most of our neighbors on Canon Drive and Parkside Court share our apprehension. We sincerely hope East Bay Regional Park District will carefully consider our concerns and the similar concerns of other Kensington residents before making such an important (and, for us, potentially damaging) decision.

Sincerely,

Hope A. Carson

Dorothy J. Anderson

Hope A. Carson

Dorothy J. Anderson

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East Bay
Regional Park District

11500 SKYLINE BOULEVARD, OAKLAND, CALIFORNIA 94619 TELEPHONE (415) 531-9300

September 10, 1985

Ms. Carson and Ms. Anderson
606 Canon Drive
Kensington, CA 94708

SUBJECT: Wildcat Canyon Regional Park
Land Use Development Plan/EIR

Dear Ms. Carson and Ms. Anderson:

Thank you for reading and responding to the above subject with your letter dated September 3, 1985. The EIR portion of the document did discuss the traffic impacts should either Canon or Central Park Drive be closed due to earth slides. The plan does not propose to close either of these access roads.

The District is aware of the inadequate nature of Canon Drive and will continue to work with the City of Berkeley and the County to provide a better and safer access to the Tilden Nature Area.

Thank you again for your interest and should you have further questions or concerns, please call me on Extension 224.

Sincerely,

Peter Koos

Peter Koos
Senior Landscape Architect
Planning and Design Department

PK:cp

James Martin
1370 Marin Avenue
San Pablo, CA 94806
TEL (415)236-2361

Mr. Peter Koos
Sr. Landscape Architect
East Bay Regional Park District
11500 Skyline Blvd.
Oakland, CA 94619
August 28, 1985

SUBJECT: Wildcat Canyon Regional Park
Comments on the Draft LUP/EIR

Dear Mr. Koos:

I would like the District to know of my general support for the proposed Land Use Development Plan of Wildcat Canyon and Alvarado Parks. I am particularly happy about the proposal for a park residence at Alvarado Park and feel that having a resident ranger at the park will improve both the security and negative community attitude about Alvarado Park. Although the Plan and EIR for the most part appear adequate, after reading the entire document, I have several concerns that are listed below:

1. My greatest concern relates to the traffic impacts of future park users and the incorrect assumptions in the traffic section of the EIR. The traffic analysis assumes that all future park users will pass through the McBryde/Amador intersection. As you may know, improvements to I-80 will eliminate the McBryde and Amador off-ramps and the Solano on-ramp. These improvements will force all regional park traffic to use the San Pablo Dam Road interchange. This regional traffic will not pass through the McBryde/Amador intersection but will "short-cut" to and from the park by using Marin and Riverside Avenues. Marin and Riverside Avenues are narrow winding residential roadways which already have an unusually high ADT of over 1,500 vehicles. Based on the trip generation estimates by JHK & Associates, 800 or more daily vehicle trips could be expected to use the Marin/Riverside "short-cut", which would aggravate the existing traffic safety hazard and would constitute a significant adverse impact to the residents of Marin and Riverside Avenues. The traffic section of the EIR should be corrected to reflect the above information and mitigation should be provided to insure that the District work with the City of San Pablo to prevent the potential traffic impacts to Marin and Riverside Avenues.

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2. My other concerns relate to the proposed improvements to Alvarado Park. The development concept for the "Alvarado Recreation Unit" is very generalized, as discussed on pages 32-37 of the Plan. I believe it would be helpful if the District could involve the residents who live in the immediate vicinity of the park in the preparation of the final development plans for the unit. Most of us are intimately familiar with the present problems with Alvarado Park, and I believe our input into the final development plans would be of value to the District and the park. Below are specific comments on the development of the Alvarado Recreation Unit.

- Unauthorized vehicle use, dumping, and drug and alcohol use, are presently the major problems with the park. Open-space fencing with walk-throughs placed around the periphery of the park would help to eliminate unauthorized vehicle use. Placing signs at the entrances to the park which indicate that dumping, and drug and alcohol use are illegal, could help to deter such activities.

- Improvements to the Girl Scout Camp should not include paving the access to North Arlington Boulevard as any additional pavement would just encourage bottle breaking. The practice of dumping concrete rubble and wood chips into the creek in the vicinity of the Girl Scout Camp should not be practiced by the District and efforts should be made to remove the existing debris.

- Concrete rubble and debris should be removed from the creek bed and surrounding areas. This should include the tires, concrete, and cyclone fencing that have been dumped along the creek in an attempt to "protect" the Creek picnic area just south of the large parking lot. Removal of the debris in the Creek picnic area may require the elimination of one or two of the three picnic tables designated for the area.

- A well defined access should be provided across Wildcat Creek between the large parking lot and Casino and Marin Avenues. This path is a major entry point for pedestrian traffic from the City of San Pablo. The bridge over the creek at this access point should be replaced by the District.

- The existing play area just east of the large parking lot is an important feature of the park to the residents of the surrounding neighborhoods. The discussion of the development concept (page 36) for the park indicates that the bowl area "uphill" from the former dance pavilion is to be regraded. The play area should be preserved or replaced with a tot-lot if the area is to be regraded.

- French and scotch broom thickets are a significant problem in

Alvarado Park, and efforts should be made to prevent the further spread and to eventually eliminate these species from the Park.

*Several private parcels fringe the northwestern edge of Alvarado Park. These parcels would compliment the existing resources of the park if they could be incorporated into the park. The District should investigate the possibility of purchasing these parcels, perhaps under a joint purchase agreement with the juristictional agencies in the area: the City of San Pablo, the City of Richmond, and Contra Costa County.

I appreciate the opportunity to comment on the LUP/EIR and hope the above comments will be incorporated into the Plan.

Sincerely,

James A. Martin

East Bay
Regional Park District

11500 SKYLINE BOULEVARD, OAKLAND, CALIFORNIA 94619 TELEPHONE (415) 531-9300

September 10, 1985

James Martin
1370 Marin Avenue
San Pablo, CA 94806

SUBJECT: Wildcat Canyon Regional Park
Land Use Development Plan/EIR

Dear Mr. Martin:

Thank you for your letter dated August 28, 1985 regarding above subject. We are pleased with your general support of the plan and appreciate your detailed suggestions. The traffic concerns have been dealt with. See pages 93-96 of the final document.

After Board adoption of the plan, the District will be preparing a Capital Improvement Plan for Alvarado Park. During this phase, I would be more than happy to contact you to "pick your brain" as you suggested.

Looking forward to seeing you later this fall.

Sincerely,

Peter Koos

Peter Koos
Senior Landscape Architect
Planning and Design Department

PK:cp

STATE OF CALIFORNIA—OFFICE OF THE GOVERNOR GEORGE DEUKMEJIAN, *Governor*

OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET
SACRAMENTO, CA 95814

(916/445-0613)

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September 6, 1985

T.H. Lindenmeyer
East Bay REgional Park District
11500 Skyline Boulevard
Oakland, CA 94619

Subject: Wildcat Canyon Regional Park
SCH# 84021408

DearMr. Lindenmeyer:

The State Clearinghouse submitted the above named environmental document to selected state agencies for review. The review period is closed and none of the state agencies have comments. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call Price Walker at 916/445-0613 if you have any questions regarding the environmental review process. When contacting the Clearinghouse in this matter, please use the eight digit State Clearinghouse number so that we may respond promptly.

Sincerely,

John B. Chanian
Chief Deputy Director
Office of Planning and Research