



JUNIPERO SERRA  
COUNTY RECREATION AREA

Master Plan

MASTER PLAN  
JUNIPERO SERRA COUNTY RECREATION AREA

County of San Mateo  
Division of Parks and Recreation  
Department of Environmental Management

November, 1981

Prepared by:  
EDAW, Inc.  
in association with  
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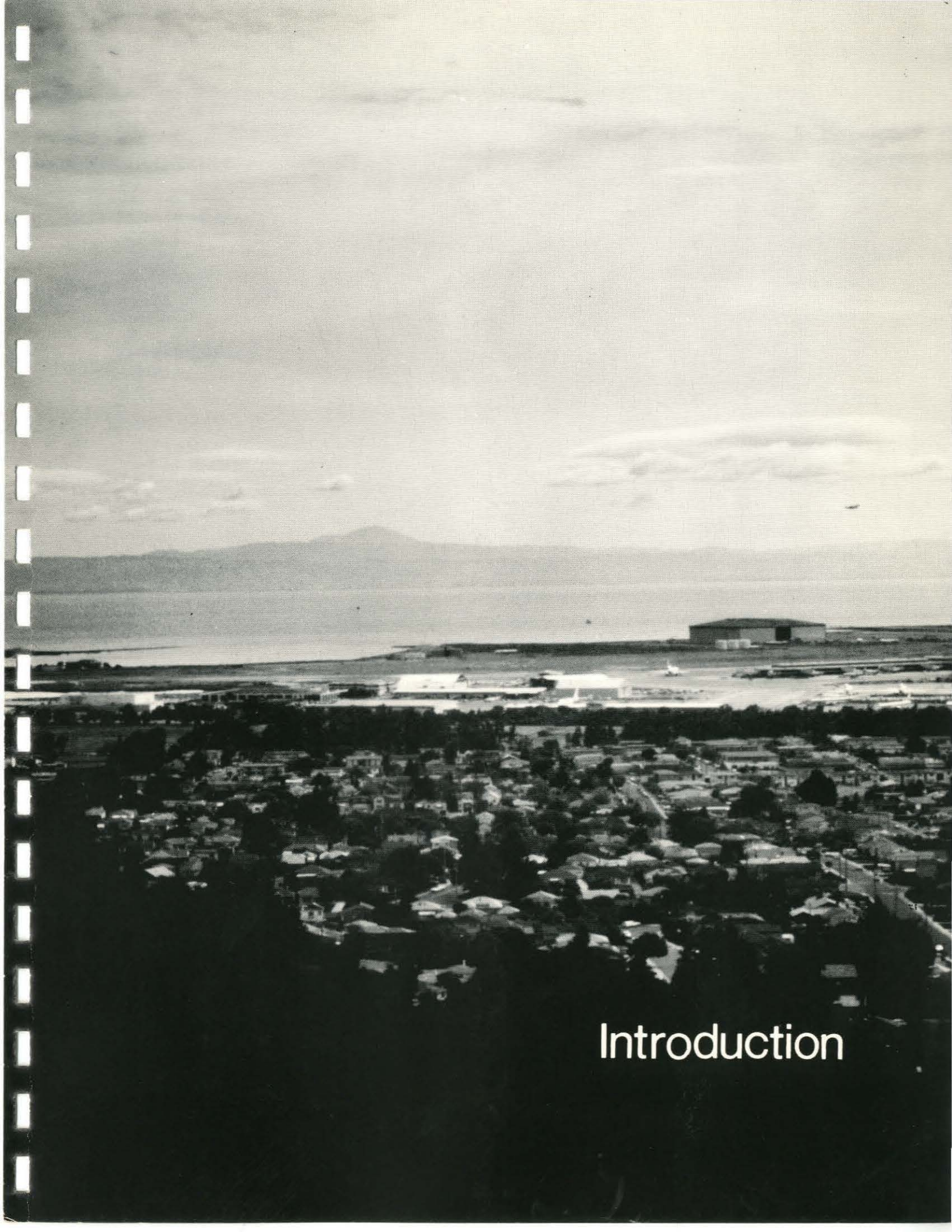
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# Introduction

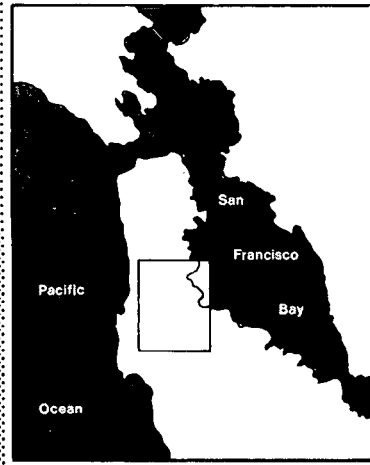
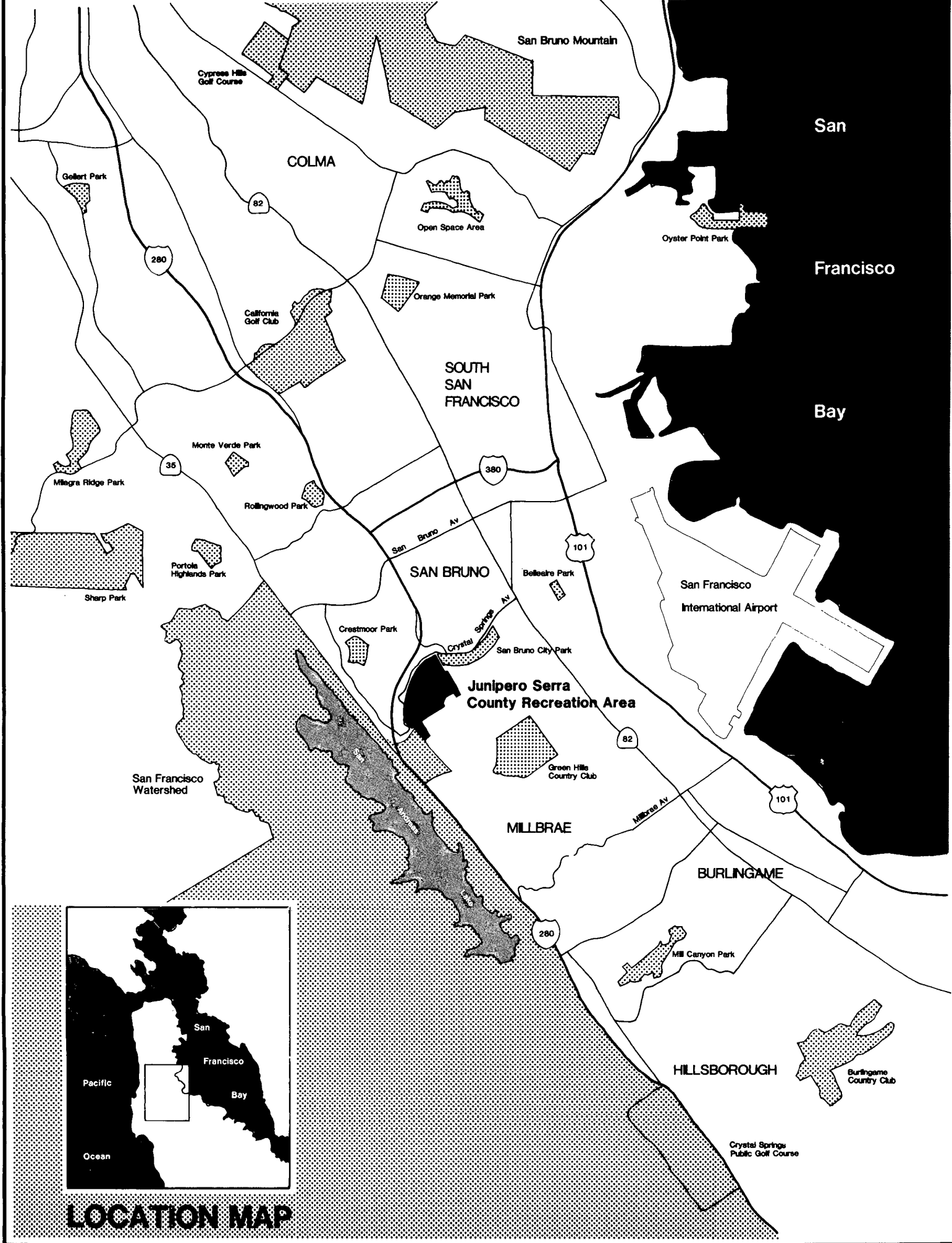
## I. INTRODUCTION (See Location Map)

Junipero Serra County Recreation Area is an 108-acre site set in the Bayside Foothills of the Santa Cruz Mountains in north central San Mateo County, east of San Andreas Lake. Nestled between Interstate Highway 280 and the urbanized cities of San Bruno and Millbrae, the Recreation Area is accessed from Crystal Springs Road. It has several overlooks which give the viewer a spectacular panorama of the Bay Area--unequaled views to South San Francisco, San Bruno Mountain, the busy San Francisco International Airport, San Francisco Bay and Mount Diablo. Other prime resources of the Recreation Area are considered to be the Oak Foothill plant community, spring wildflowers, the El Zanjon Creek Drainage, and the peaceful retreat the Area affords from surrounding pressures of urban development and activities. Comprised of a prominent knoll of open space, the Recreation Area provides an important backdrop amenity to San Bruno and Millbrae as well as the scenic Interstate 280.

The Recreation Area was originally purchased and developed by the County during the late 1950's and the early 1960's. Much of the development which exists today is poorly designed with respect to natural resource management considerations. Portions of the Recreation Area are showing signs of extremely heavy use while other use areas are often empty. The soils are highly erodible and slippage and sliding are taking place in a number of places. Flat space for recreation use is at a premium, as much of the Recreation Area consists of steep hillsides, yet is used for purposes which exclude the public such as the corporation yard and private ranger residence.

The Master Plan for Junipero Serra County Recreation Area will be used to guide development and landscape management for the foreseeable future. It is broken into two components: the Development Plan and the Management Plan. It stresses informal recreation activities and includes facilities such as: parking, open meadows/playfields, picnic sites for families and groups, trails, headquarters and interpretive center, maintenance and support facilities, and the potential for electrical service to the Area by utilizing windmill generated energy. The Master Plan envisions a strong tie between the Recreation Area and San Bruno City Park to the east and San Francisco Watershed District lands to the west.

The Master Plan is based on an assumed carrying capacity of 684 people at any one time, limited by the number of developed parking spaces and amount of overflow parking space available for use. One auto access point and a gatehouse are provided for controlling the number of visitors.



**LOCATION MAP**



Recreation Area development is outlined in four prioritized phases over an unspecified period of time pending availability of implementation funds. Total development costs for the Recreation Area are estimated to be \$3,784,700. Upon completion of all development proposals, it is estimated that the ultimate annual staffing costs would be approximately \$138,750.<sup>1</sup>

#### A. The Planning Process

The planning process for Junipero Serra County Recreation Area addressed in this Master Plan goes back thousands of years to the lower elevations of the Recreation Area along El Zanjon Creek where Costonoan Indian shell mounds once existed. The Costonoans lived in the general vicinity and had a diet of shellfish gathered from the Bay, and native herbs, berries, nuts, birds and mammals existing in and along the riparian forests of the Drainage and the adjacent oak covered grasslands. Many of the same plant and animal species can be found in the Recreation Area today. Each year the Indians burned large areas of land along the bay-side foothills and plains to capture fleeing mammals and birds. The secondary results of the fires were to control the spread of chaparral and open up oak woodlands, thereby allowing more mammals to graze upon the resulting prolific grasses. Burning also increased the yield of acorns as well as many berry plants. With yearly burns, duff did not accumulate under the vegetation and did not build up the tremendous heat of the fires we experience today.

In the first part of the 19th century, the land was controlled by the Mission Dolores and later the Presidio. The Spanish halted the practice of annual burning and used the area for grazing cattle, sheep and horses. In the 1820's, fearing colonial expansion by the Russians, Spain sent more people to the state of Alta California with the inducement of land grants. The land of the Recreation Area became part of the Buri-Buri Rancho of Jose Sanchez in 1827, which consisted of 15,000 acres and stretched from Daly City to Burlingame and from San Andreas Valley to the Bay. It continued to be used for cattle grazing. The character of what is now Coonskin Cap was most likely grassland. The death of Sanchez and the American takeover of California in 1846 proved the rancho era to be very short lived in the Bay Area. With the discovery of gold in 1848 and the population of San Francisco

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<sup>1</sup> 1981 prices

swelling to 250,000 by 1850, the Buri-Buri Rancho was subdivided three ways at first and then later even further.

In due time, a wagon road, later to become the Crystal Springs Road of today, was cut from the railhead at San Bruno to the north-south ridge route along the east side of San Andreas Valley. At this time residents of the area were busy clearing the Bayside plains for farms, orchards, grazing, and estates of the nouveau riche of San Francisco. The bayside foothills were cleared of most of the advancing chaparral and many of the coast live oaks. Only the oaks growing in gullies and ravines were left intact. This style of life continued until the 1906 earthquake which saw many people leave the city in an attempt to find a safer place to live. This began the growth of the suburbs, in earnest, of the San Francisco Peninsula. The newly incorporated City of San Bruno offered 1/4 acre lots for sale with substantial tax savings if a house were built on the property within six months. The City of San Bruno began to grow rapidly with effects upon the hillside just as rapid. Grazing cattle were replaced by dairy herds to supply the nearby populace. The 484 foot hill which today comprises most of Junipero Serra Recreation Area was at this time the north facing end-slope of a ridge that attained a height of 550 feet about 1/2 mile south of the Recreation Area. With new suburban development, building materials were needed and this ridge contained a large deposit of Franciscan Sandstone. A quarry, which operated for 40 years, managed to excavate 3/4 of the top of the ridge, leaving only the north slope, now the Recreation Area. The large eucalyptus, Monterey Pine, and Monterey Cypress which cover much of the hillcrest were planted at this time for windbreaks.

By the mid 1950's, the quarry had been depleted and dairy grazing squeezed out by post war urban growth. In 1956, the County of San Mateo purchased the property with the intention of developing it to provide for growing recreation needs. The Area as it exists today was developed in the late 1950's and early 1960's without the benefit of a Master Plan or serious consideration of environmental consequences. In 1977, a Resource Management Plan was prepared by the County Department of Environmental Management, Parks and Recreation Division to identify specific problem areas, establish long-range resource goals, and recommend specific management changes.

The preparation of this Master Plan continues the effort started by the County in 1977. This plan establishes goals and outlines physical changes and management strategies for the Recreation Area for the next 25 to 30 years. The preparation of the Master Plan included three public meetings to: (1) review past management policies and the results of recreation demand and natural resource analyses, and establish a preliminary list of goals for the Area; (2) discuss the pros and cons of preliminary plan options and finalize goals, and; (3) revise and finalize the Master Plan proposals.

The concept established for the Recreation Area calls for it to remain primarily natural in character while rectifying existing management problems, be developed for a variety of recreation uses which require only low-key alterations to the landscape, and be developed so that its cultural and natural history can be presented to the public. An important ingredient in the concept for development is to maintain the wild undeveloped atmosphere of solitude the Recreation Area now affords in certain areas, yet at the same time increase use levels. A balance is reached in the plan which capitalizes on dispersing picnic use evenly throughout available flat areas.

More specific goals and development objectives for the Recreation Area follow.

#### B. Goals and Objectives

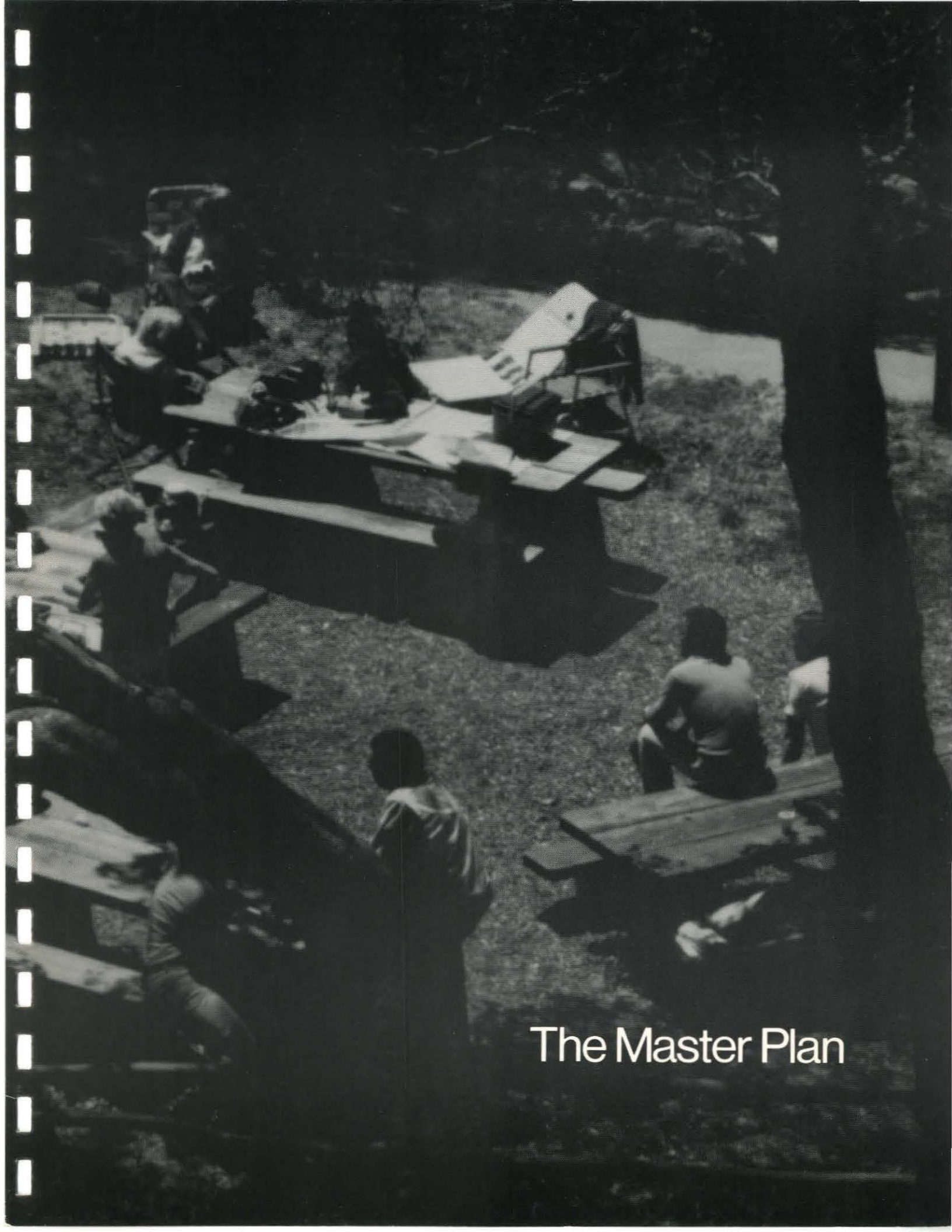
The following list of goals and objectives for the development of the Master Plan are based on county-wide recreation needs, natural resource analyses and public hearing testimony. They also include management recommendations outlined in the April, 1979 Natural Resources Management Plan prepared by the County.

1. Emphasize Outdoor Recreation
  - o Provide facilities to encourage the appreciation and enjoyment of natural settings.
2. Encourage Use
  - o Over the past five years, Area attendance has declined. Upgrade the Area's natural character, Area facilities and programs.
3. Implement Management Unit Recommendations of the Natural Resources Management Plan (April 1974)
  - o Re-establish native plant associations.
  - o Stabilize erosion processes (including El Zanjon Creek).

- o Encourage diversity and high levels of wildlife populations, particularly quail.
4. Establish Area Image
    - o Preserve the "wild" natural character of the Area's undeveloped areas.
    - o Emphasize the potential for serenity and contrast the Area has when compared to surrounding urban development.
    - o Balance nonstructural active and passive recreation uses stressing informal activities such as picnicking, hiking, lounging, nature study and spontaneous group games.
    - o Give particular consideration to the "edge" image of the Area as it relates to the surrounding neighborhoods. Views from homes and yards adjacent to the Area should be "green" and void, where possible, of facilities. Trees near the top of Coonskin Cap are desirable. Visually buffer recreationists from adjacent residences.
  5. Increase the Public's Awareness of the Area
    - o Publicize location of the Area by placing signs on major roads.
    - o Advertise on- and off-site recreation programs and facilities.
  6. Regulate Recreation Area Fees
    - o Area fees should be competitive with the other county parks and reflect the investment in facilities.
    - o Publicize group rates and user free days.
  7. Automobile Circulation/Access Control
    - o Relocate the Recreation Area entrance and control station to reduce existing traffic hazards on Crystal Springs Road.
    - o Provide only one controlled auto access point to the Area.
    - o Concentrate parking facilities close to the heavy use areas.
    - o Close the loop road on Coonskin Cap to automobiles.
    - o Long-range consideration should be given to locating a service entrance to the Area that is separated from the public automobile entrance.
  8. Improve Pedestrian Trail System
    - o Provide an interconnected network of hiking trails.
    - o Establish a footpath linking Junipero Serra to San Bruno City Park and the San Francisco Watershed Lands. Through design, reduce the potential for San Bruno City Park becoming a parking area for Junipero Serra.

- o Improve and relocate where necessary sections of the existing Nature Trail.
  - o The Area's pedestrian gates should be kept open during the day and locked at night.
  - o Provide a loop trail of approximately 1-1/2 miles for use by school groups.
9. Improve Recreation Facilities
- o Irrigate and maintain the Meadow View playfield for ballgames and spontaneous play.
  - o Provide day camp facilities for 100 to 150 children if possible.
  - o Provide stimulating playgrounds and play equipment for children.
  - o Provide handicap access.
  - o Remove picnic facilities on Coonskin Cap.
  - o Provide sand volleyball and horseshoe areas.
10. Expand Interpretive Program
- o Either the existing Park Headquarters or Ranger Residence should be adapted, or a new building constructed, to house a natural history display and a group meeting room.
  - o A wildlife exhibit featuring a collection of live animals found in northern San Mateo County would undoubtedly be a popular educational display.
  - o Encourage use of wind energy, if feasible, for both the economic energy savings and for the interpretive potential.
11. The Location and Function of the Headquarters, Ranger Residence and Maintenance Yard
- o The Area service buildings are effectively located for the purpose of user control and security. However, the Ranger Residence is a visually incongruous element in the Area landscape. Relocate or adapt this structure for other uses.
  - o Relocate the Maintenance Yard.
12. Redesign El Zanjon Creek Channel
- o Redesign the section of El Zanjon Creek that passes through the lower developed area, possibly constructing check dams and other water features along its course to control erosion and enhance the visitors' enjoyment of the stream.
  - o The riparian experience of El Zanjon Creek should be preserved.
  - o The maintenance of the creek should be considered in the design proposals.

13. Introduced Plants Should Be Gradually Removed
  - o Introduced plant species, especially the eucalyptus and Monterey Pine, should be managed, as stated in the Management Plan, for their gradual removal and replacement with native plants.
  - o As part of the first phase of any comprehensive management plan, remove eucalyptus near private residences on Area boundary. These present a serious liability problem.
14. Archaeological Resources Should Be Identified and Protected
  - o Incorporate the archaeology and history of the Area as part of an interpretive program.
15. Security Considerations--Protecting the Recreation Area and the Potential for Random Vandalism of Adjoining Neighborhoods
  - o No through roads should be developed.
  - o All automobile access should be at one controlled point.
  - o Locate major trails so that a reasonable buffer exists between houses adjacent to the Area and the trail.
  - o Ranger residence at the Recreation Area is highly desirable.
  - o Establish an access monitoring program.
16. Specific Responsibilities for Operations and Management
  - o Clearly outline the operations and management manpower level required for each major Recreation Area development and overall program.
  - o Identify all costs for each development and management proposal.
  - o Where inter-agency responsibilities occur, such as in the case of fire protection, indicate the role of each.
17. Group Use By Organizations Should Be Encouraged
  - o Provide limited overnight facilities.
  - o Encourage multiple use of picnic areas, for example, day-camp activities during the week and group picnic during the weekend.



## The Master Plan

## II. THE MASTER PLAN

The Master Plan for Junipero Serra County Recreation Area is an action program designed to achieve the goals and objectives outlined in the previous section. It consists of a Development and a Management Plan. The Development Plan lists alterations and rehabilitation measures to be taken in existing conditions to facilitate recreation and interpretation activities. The Management Plan explains methods to be employed: (1) in achieving natural resource management goals, and (2) in operating and maintaining the Recreation Area to assure that public use does not degrade habitat quality or user experience.

### A. Use and Primary Development Areas

The predominant existing use of the Recreation Area is for family and group picnicking. Organized day camp activities, hiking and limited overnight group camping are other popular forms of recreation. Use now concentrates first along the El Zanjon Creek Drainage in the De Anza picnic areas and only when filled to capacity does it move up the hill to the Meadow View Area. The Coonskin Cap facilities receive only light use.

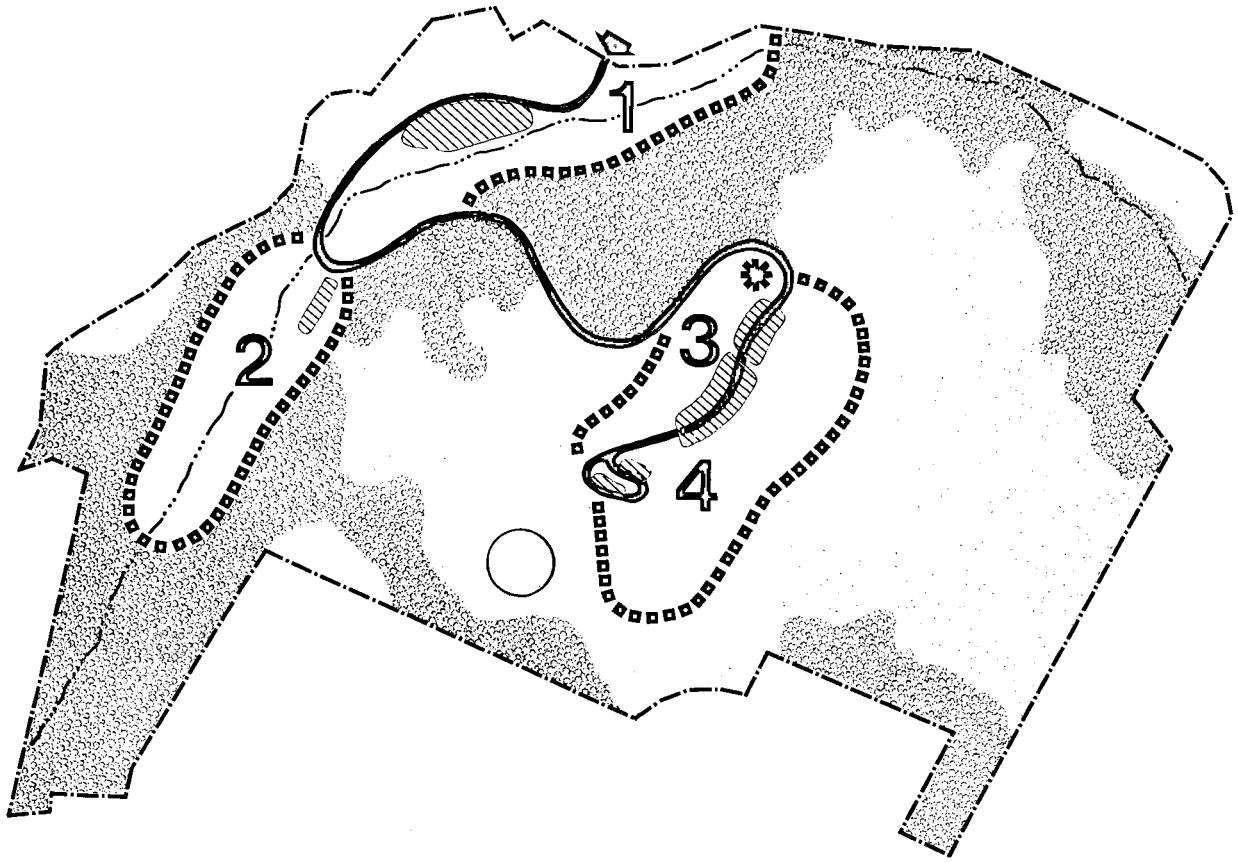
Changes in use dynamics have been influenced by a tightening in security which included closing the Area after sunset, the imposition of user fees which discouraged "drive-through" and casual scenic driving, and a decline in favorable area conditions particularly in the Meadow View and Coonskin Cap areas where windbreaks have matured and become ineffective.

The highest potential for increasing use is through providing increased opportunities for group picnicking and hiking. Day camp activities, though traditionally popular, have severely impacted the constrained upper portions of the El Zanjon Creek Drainage. As other units of the County Park System, notably at San Bruno Mountain and San Pedro Valley are developed, what little day camp activities do take place at the Recreation Area will be transferred to more appropriate facilities. Hiking opportunities will also be expanded with the development of a comprehensive trail system.

The Development Plan consists of four major development areas (see Conceptual Diagram) which will accommodate the majority of use within the Recreation Area. These are:

1. De Anza Area - which is envisioned to be used primarily for individual and family picnicking and












# CONCEPTUAL DIAGRAM

## PRIMARY DEVELOPMENT AREAS

- 1 FAMILY PICNIC
- 2 DAY CAMP / GROUP PICNIC
- 3 FAMILY PICNIC
- 4 GROUP PICNIC

-  PARK ENTRANCE
-  PARKING
-  INTERPRETIVE CENTER
-  EL ZANJON CREEK
-  COONSKIN CAP
-  OAK WOODLAND
-  GRASSLAND / SCRUB

as the major starting point for many visitors interested in the Recreation Area trail system. The area's sense of enclosure, human scale, and microclimate make it amenable for small group use.

2. Willow/Oak Cove Area - which, in the short term, will remain available for day camp activities until which time they can be accommodated elsewhere in the County Park System. The ultimate use of the upper sections of El Zanjon Creek will not be for day camp activities. The area will be redeveloped for use by small groups and walk-in picnicking, preserving its potential for occasional overnight use by such groups as the Boy Scouts, etc.
3. Western Meadow View Area - now consisting of the Recreation Area Maintenance Yard and Ranger Residence which will provide additional family and small group picnic opportunities and the site for a new combined Area Headquarters and Visitor Facility.
4. Meadow View and Crows Nest Area - which will be expanded for group picnic facilities that capitalize on the panoramic views afforded of the Bay and Peninsula.

The overall use concept is to target the El Zanjon Creek Drainage for the less intense (and less damaging) activities which depend on a close relationship with natural amenities. The Drainage is ecologically more sensitive than the higher Meadow View Area as is evidenced by the impact past group use has had on the Drainage. By emphasizing group activities in the higher elevations, use will be more evenly distributed within the Recreation Area without sacrificing the qualities of the recreation experience.

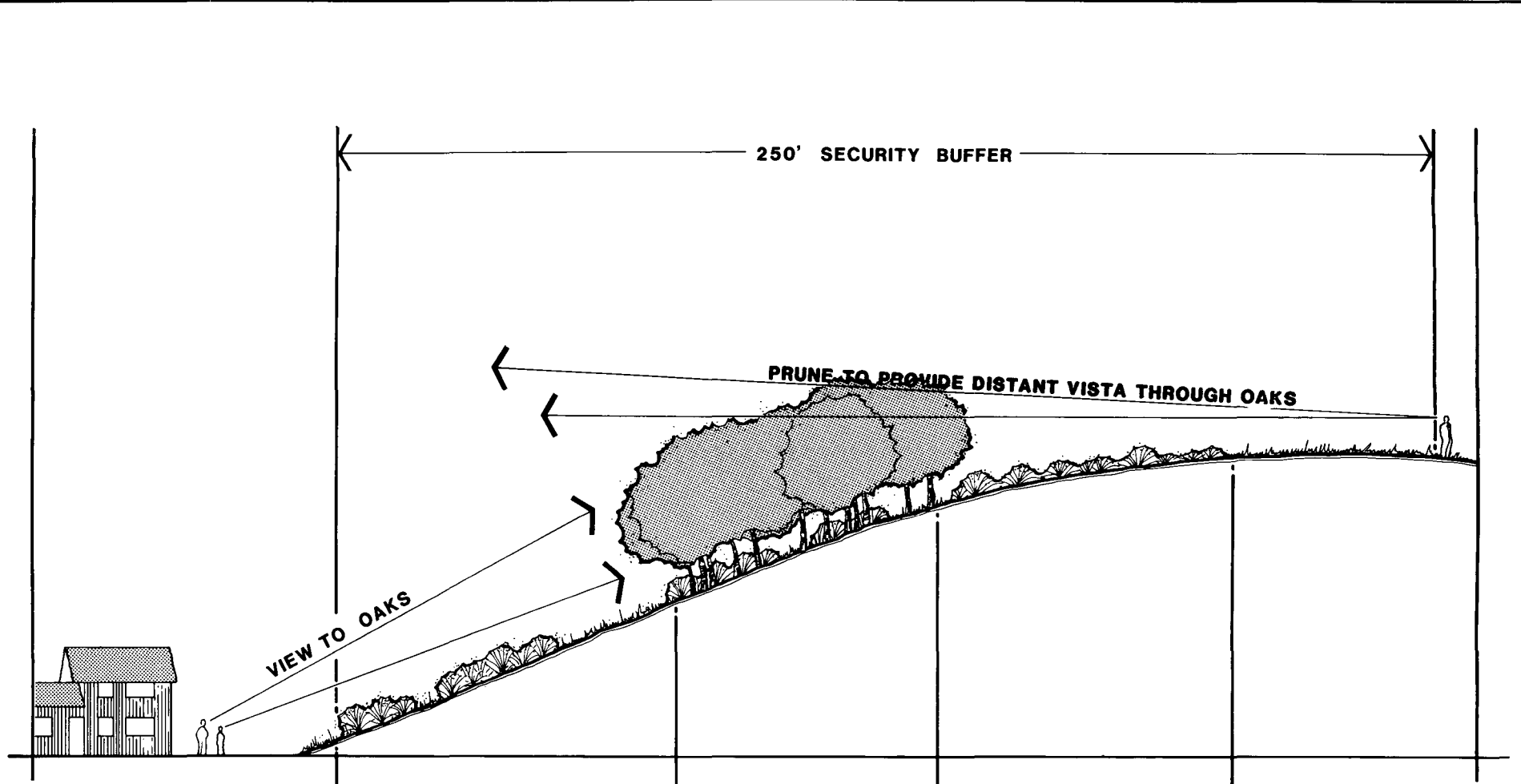
#### B. Neighborhood/Recreation Area Relationships

In the past, numerous disturbances and types of vandalism have taken place within the immediate neighborhoods surrounding the Recreation Area. The rate of incidences has fallen since the Area has been closed to general public use after dark and since the gate off Terrace Drive has been locked. However, isolated acts of nuisance still take place. These typically involve the noise created by group activities and minor property damage by individuals. Additionally, the privacy of residences is often invaded as recreation use of Coonskin Cap and the existing trail system often has a direct line-of-sight into backyards abutting the Recreation Area.

Table 1

NEIGHBORHOOD/RECREATION AREA RELATIONSHIPS

NEIGHBORHOOD ISSUES	NEIGHBORHOOD GOALS	COUNTY/RECREATION USE GOALS	DESIGN RECOMMENDATIONS
<ul style="list-style-type: none"> <li>o Public Access to Recreation Area From:               <ul style="list-style-type: none"> <li>- Lomita Avenue (narrow street)</li> <li>- Terrace Drive</li> <li>- Helen Drive</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>o Limit public access to avoid parking problems and nuisance</li> </ul>	<ul style="list-style-type: none"> <li>o Increase public awareness of the Area</li> <li>o Encourage use, both local and regional</li> </ul>	<ul style="list-style-type: none"> <li>o No signs at any entrances</li> <li>o Walk-through control gate at Lomita Avenue and Helen Drive</li> <li>o Locked gate (except for emergencies) at Terrace Drive</li> </ul>
<ul style="list-style-type: none"> <li>o Security of Private Property</li> </ul>	<ul style="list-style-type: none"> <li>o Physically buffer residences from Area users</li> </ul>		<ul style="list-style-type: none"> <li>o Limit pedestrian use to trail system</li> <li>o Sign county policy about staying on trails</li> <li>o Plant barrier vegetation between residences and trails</li> </ul>
<ul style="list-style-type: none"> <li>o Privacy and Image</li> </ul>	<ul style="list-style-type: none"> <li>o View from homes and yards adjacent the Area should be "green" and void of facilities. Trees near the top of Coonskin Cap are desirable</li> <li>o Visually buffer residences from Area users</li> </ul>	<ul style="list-style-type: none"> <li>o Avoid foreground views of rooftops from trails and use areas. Strengthen image of natural qualities for the recreation experience</li> </ul>	<ul style="list-style-type: none"> <li>o Establish vegetation to control views. Design plantings so that the recreationist and resident share views to a common area but do not see each other</li> <li>o Phase removal of eucalyptus with growth of new oak woodland so that trees are always viewed</li> </ul>
<ul style="list-style-type: none"> <li>o Vegetation and Habitat Management</li> </ul>	<ul style="list-style-type: none"> <li>o Remove tall trees near private property</li> <li>o Provide for quail habitat</li> <li>o Rehabilitate Coonskin Cap to include a variety in species mix: Trees, Shrubs, Grasslands</li> </ul>	<ul style="list-style-type: none"> <li>o Gradually remove exotic species. Replace with oak woodland or grassland communities</li> </ul>	<ul style="list-style-type: none"> <li>o Highest priority for vegetation program should be tree removal near private dwellings</li> <li>o Reestablish evergreen tree species</li> </ul>
<ul style="list-style-type: none"> <li>o Noise</li> </ul>	<ul style="list-style-type: none"> <li>o Site trails and use areas away from residences</li> </ul>		<ul style="list-style-type: none"> <li>o Provide a minimum 250' buffer between residences and trails</li> </ul>
<ul style="list-style-type: none"> <li>o Erosion Control</li> </ul>	<ul style="list-style-type: none"> <li>o Any Area development, use or management should not cause erosion onto private property</li> <li>o Hault erosion near Glen, Parkview and Scenic Courts</li> </ul>	<ul style="list-style-type: none"> <li>o Stabilize erosion processes</li> </ul>	<ul style="list-style-type: none"> <li>o Phase so that there is continuous cover on the land</li> </ul>



TYPICAL HOUSE  
TERRACE DRIVE

BRUSH / GRASSLAND  
QUAIL HABITAT

OAKS AS VISUAL  
BARRIER BETWEEN  
RESIDENTS AND  
RECREATIONISTS

BRUSHLAND  
AS PHYSICAL  
BARRIER

**Design Guidelines**  
**NEIGHBORHOOD/RECREATION AREA RELATIONSHIPS**

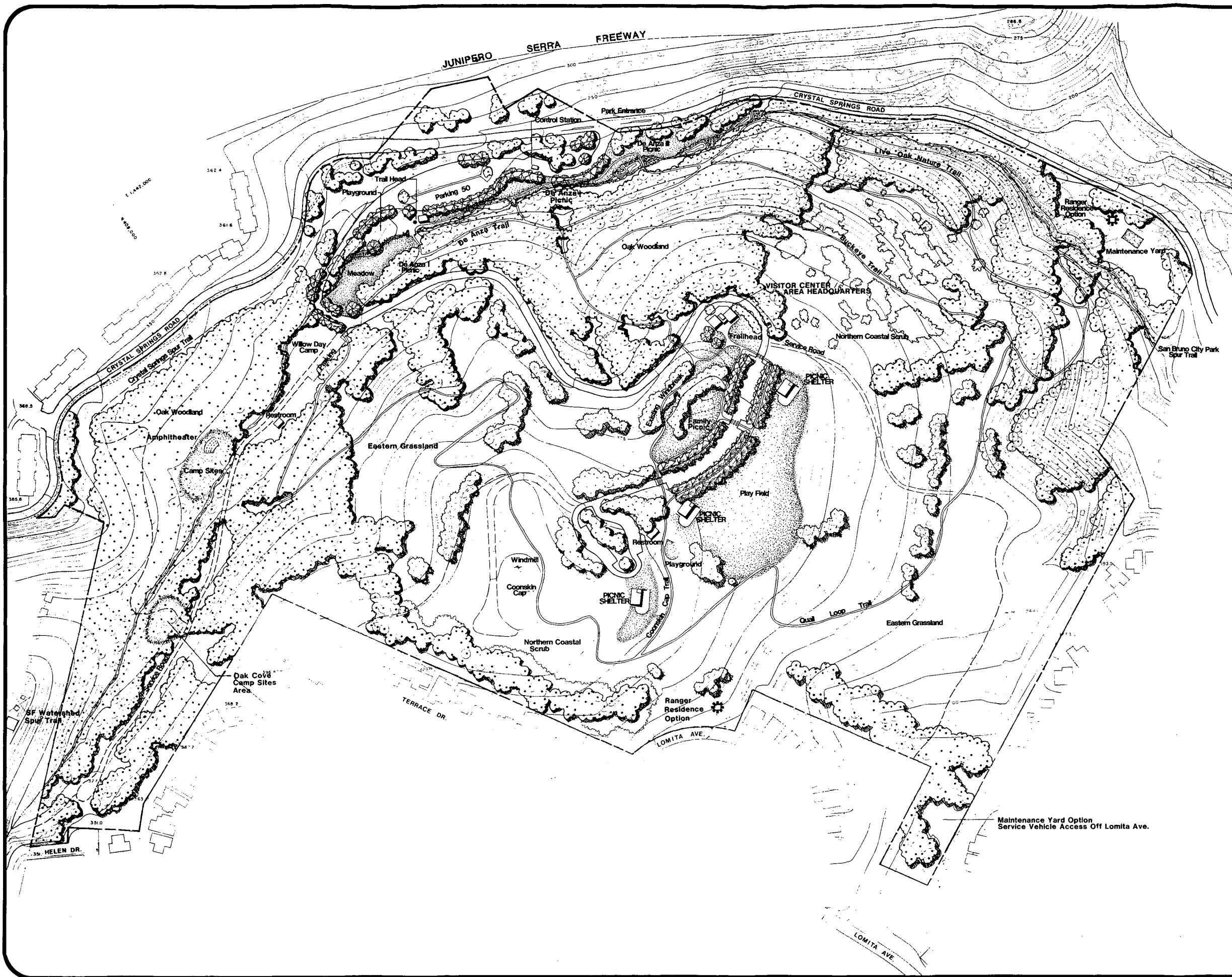
Table 1 outlines issues, goals and design recommendations for the Master Plan which address the relationship of the Recreation Area with surrounding neighborhoods in the Cities of San Bruno and Millbrae. Figure 3, Design Guidelines, Neighborhood/Recreation Area Relationships, graphically summarizes physical and visual buffer guidelines to reduce conflict between Recreation Area users and private residences. These solutions were developed in cooperation with neighborhood representatives living adjacent to the Recreation Area and the Division staff.

### C. The Development Plan

The General Development Plan has attempted to locate and design facilities that will have appeal and value to visitors while preserving the natural character and dynamics of the environmental resources. The overall recreation image should be a balance of non-structural active and passive uses stressing informal activities such as picnicking, hiking, lounging, nature study and spontaneous group games.

The following plans illustrate the proposed physical development activities for the Recreation Area. The development focuses on:

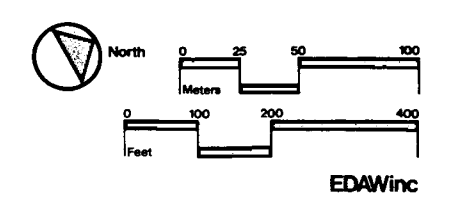
- o Relocating the Recreation Area entrance and control station
- o Providing a comprehensive interpretive trail system
- o Concentrating the parking facilities closer to the heavy use areas
- o Gradually removing exotic plant species and re-establishing native plant associations
- o Stabilizing erosion processes, especially the El Zanjon Creek channel
- o Constructing a Visitor Center at the site of the existing Maintenance Yard
- o Relocating the Maintenance Yard
- o Closing the loop road on Coonskin Cap
- o Relocating the picnic facilities on Coonskin Cap



# GENERAL DEVELOPMENT PLAN

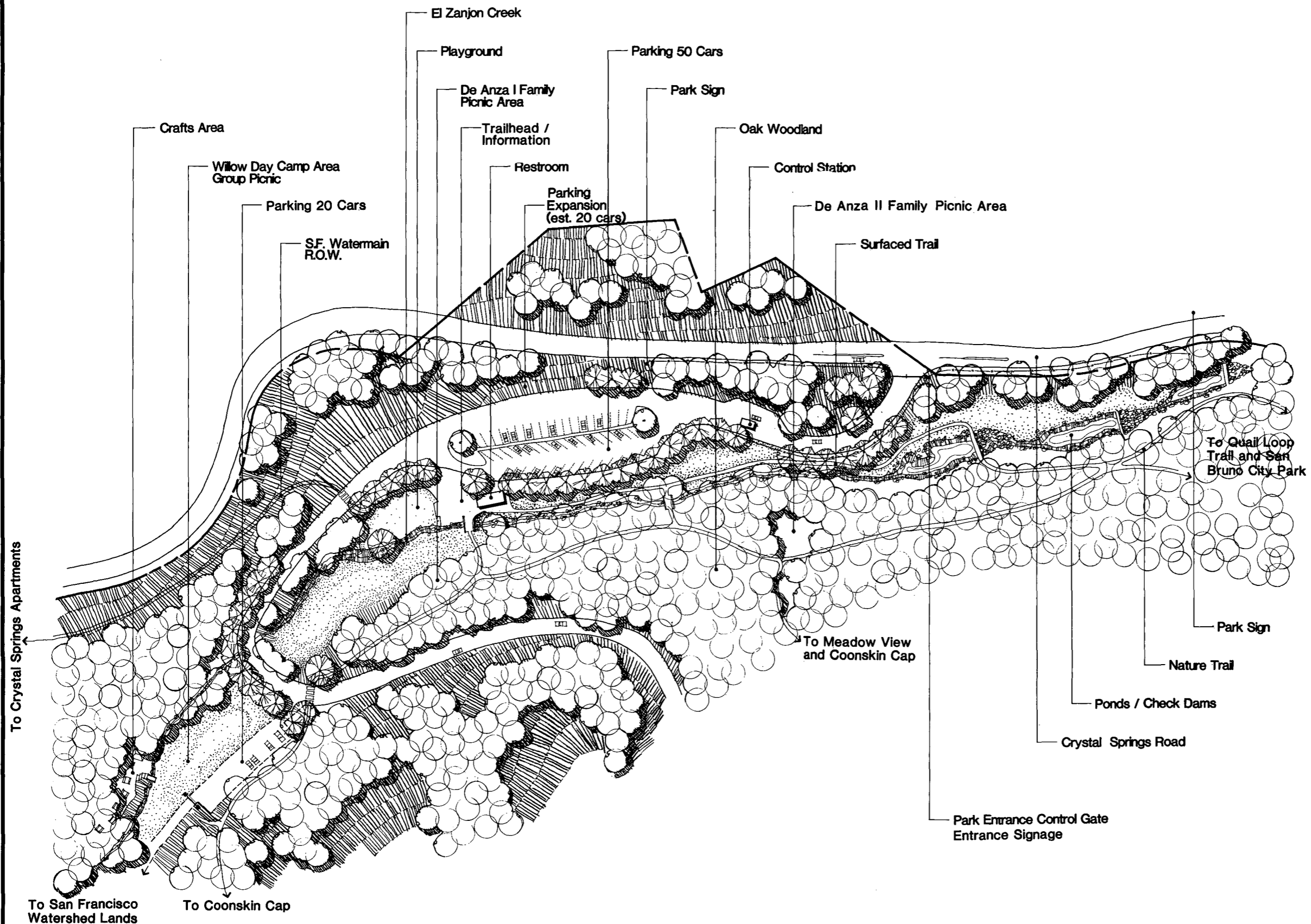
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Department of Parks and Recreation  
County of San Mateo



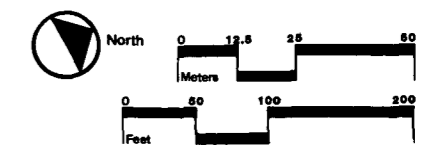
Maintenance Yard Option  
Service Vehicle Access Off Lomita Ave.

# DE ANZA DEVELOPMENT PLAN



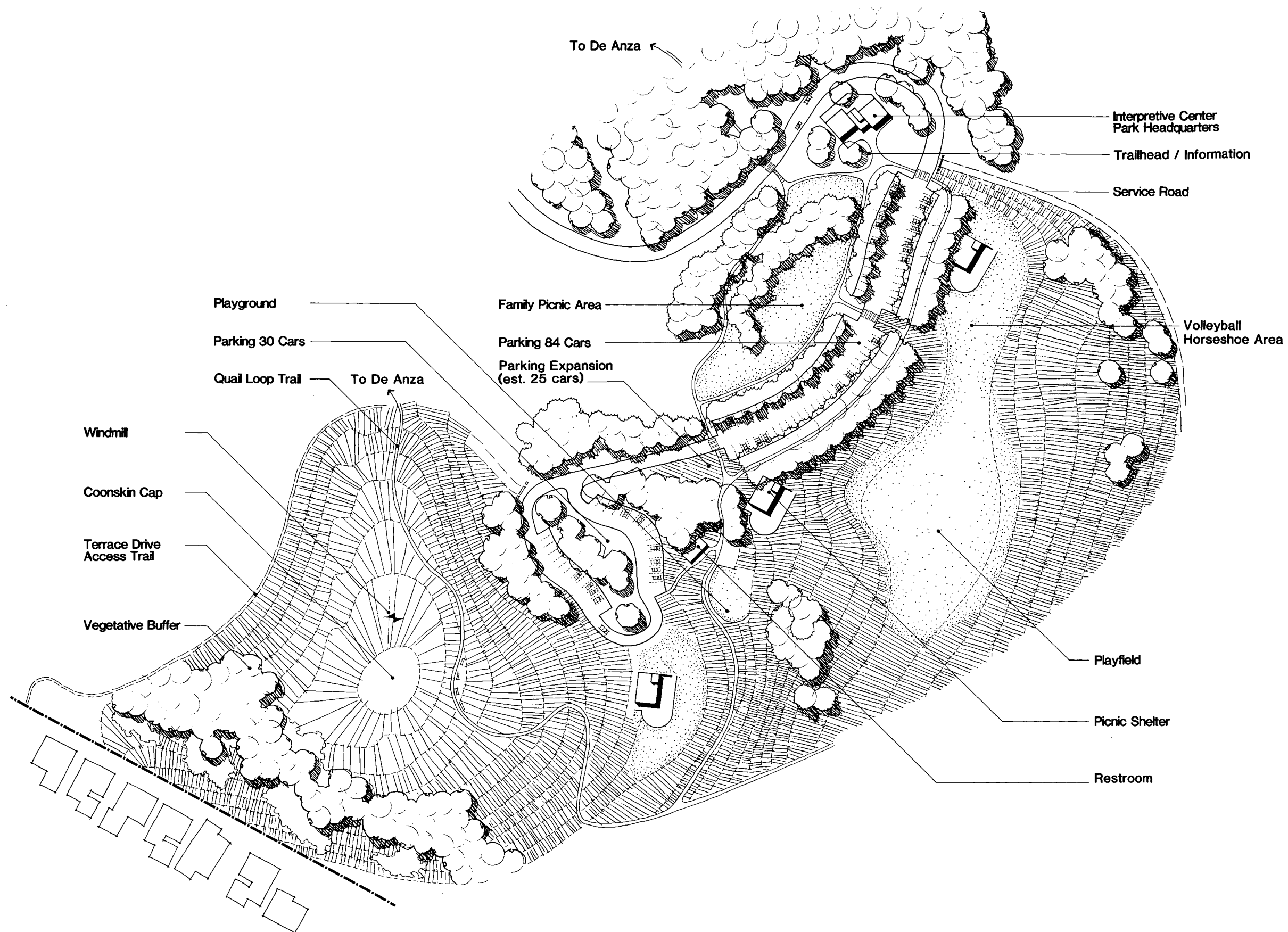
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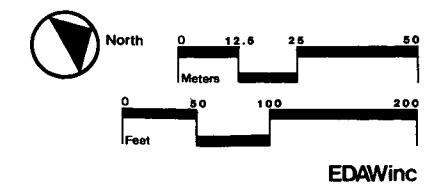
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# MEADOW VIEW DEVELOPMENT PLAN



# JUNIPERO SERRA COUNTY RECREATION AREA

Department of Parks  
and Recreation  
County of San Mateo





- o Redesigning the section of El Zanjon Creek that passes through De Anza picnic area, constructing check dams and other water features along its course to control erosion and enhance the visitor's enjoyment of the stream
- o Providing stimulating playground equipment at the De Anza and Meadow View picnic areas
- o Constructing two additional picnic shelters at the Meadow View picnic area
- o Enlarging, irrigating and maintaining the Meadow View playfield for spontaneous play

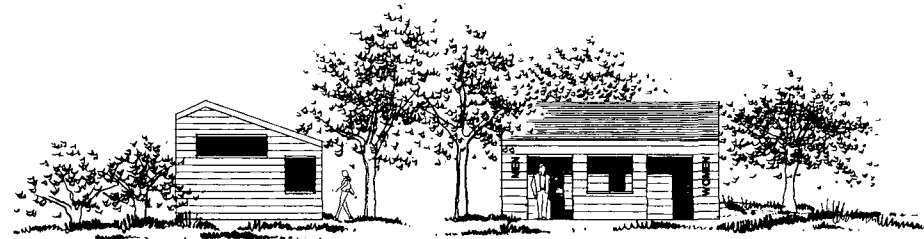
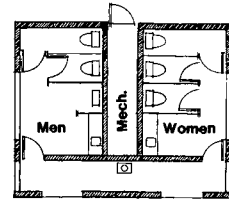
1. Structures

All new structures within the Recreation Area are designed to complement each other and present a unified design scheme. All structures will have wood exteriors, which will be allowed to weather grey with time to visually blend with the landscape.

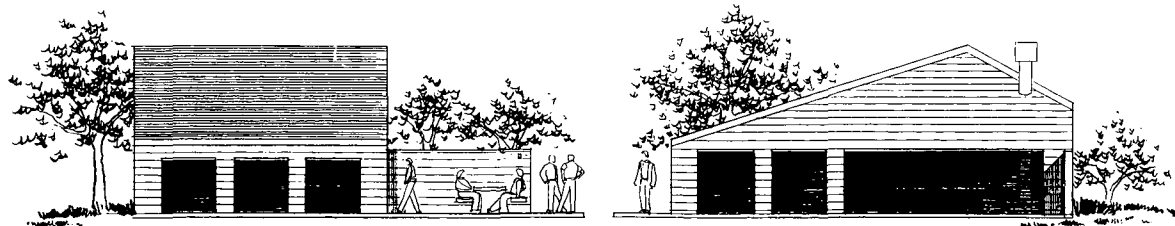
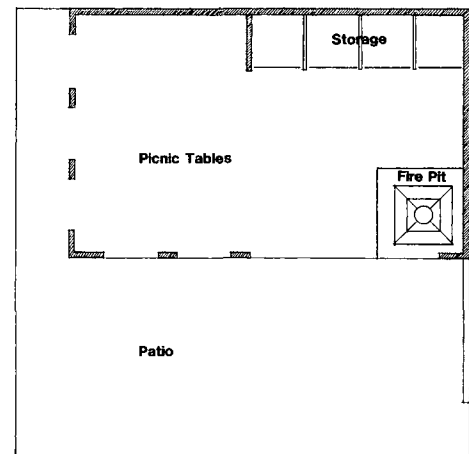
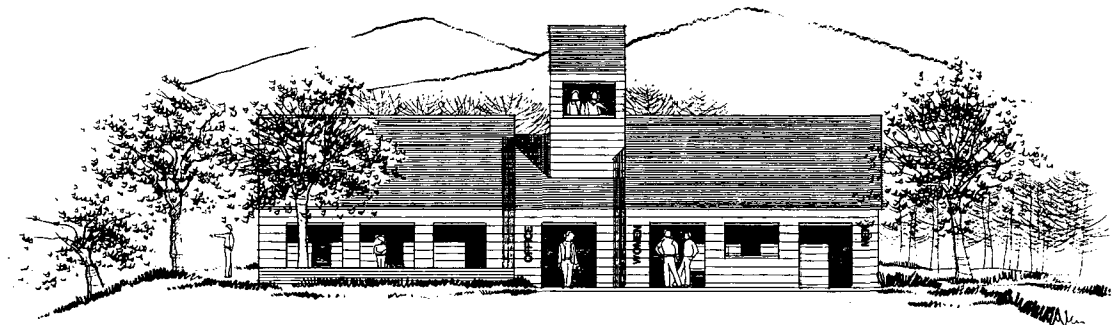
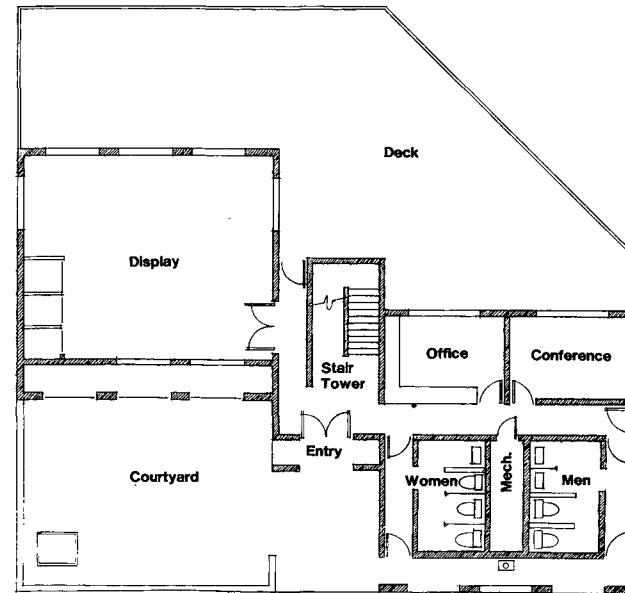
- o Area Headquarters/Visitor Center - Situated virtually in the center of the Recreation Area the building occupies a highly prominent viewpoint. Circumvented by the main access roads, the structure will be readily visible as an entrance feature to the Meadow View use area. Functioning as the Recreation Area supervisory and administrative unit, the facility includes: a ranger's office; natural and historic interpretive display room; a conference room for small group meetings; an observation room at the top of the structure allowing a 270° vista; a general purpose storage space under the observation room; exterior decks and patios, and; restrooms with exterior access.

Area/space characteristics:

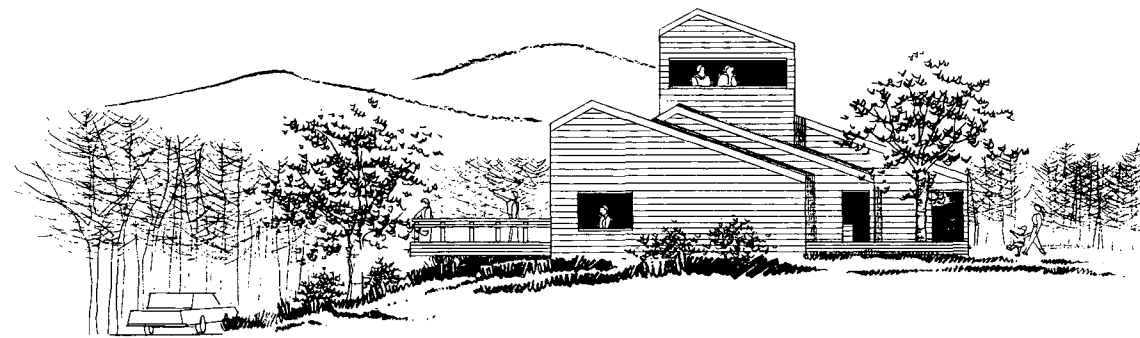
- Office	120 sq. ft.
- General Purpose/Storage	100 sq. ft.
- Interpretive Display	700 sq. ft.
- Conference Room	120 sq. ft.
- Restrooms	400 sq. ft.
- Deck	1,300 sq. ft.
- Courtyard	450 sq. ft.



**Restroom**  
1/8" = 1'-0"



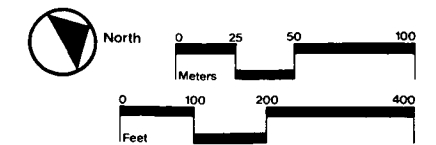
**Picnic Shelter**  
1/8" = 1'-0"



**Interpretive Center**  
1/8" = 1'-0"

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- o Restrooms - Three detached restrooms are provided for the picnic areas. Each facility contains a men's and women's room with three toilets and sink in each. An additional restroom with outdoor access is provided in the Area Headquarters/Interpretive Building. Outdoor drinking fountains are also provided.

Area/space characteristics:

- Total Area 400 sq. ft.

- o Group Picnic Shelters - Three group picnic shelters are provided in the Meadow View/Crows Nest Areas. They are sited to protect the open patio area from wind and to take advantage of the vista to the east. A wall extension provides additional wind protection.

Area/space characteristics:

- Covered Picnic Space 1,000 sq. ft.
- Patio Picnic Space 1,200 sq. ft.
- Storage Space 150 sq. ft.

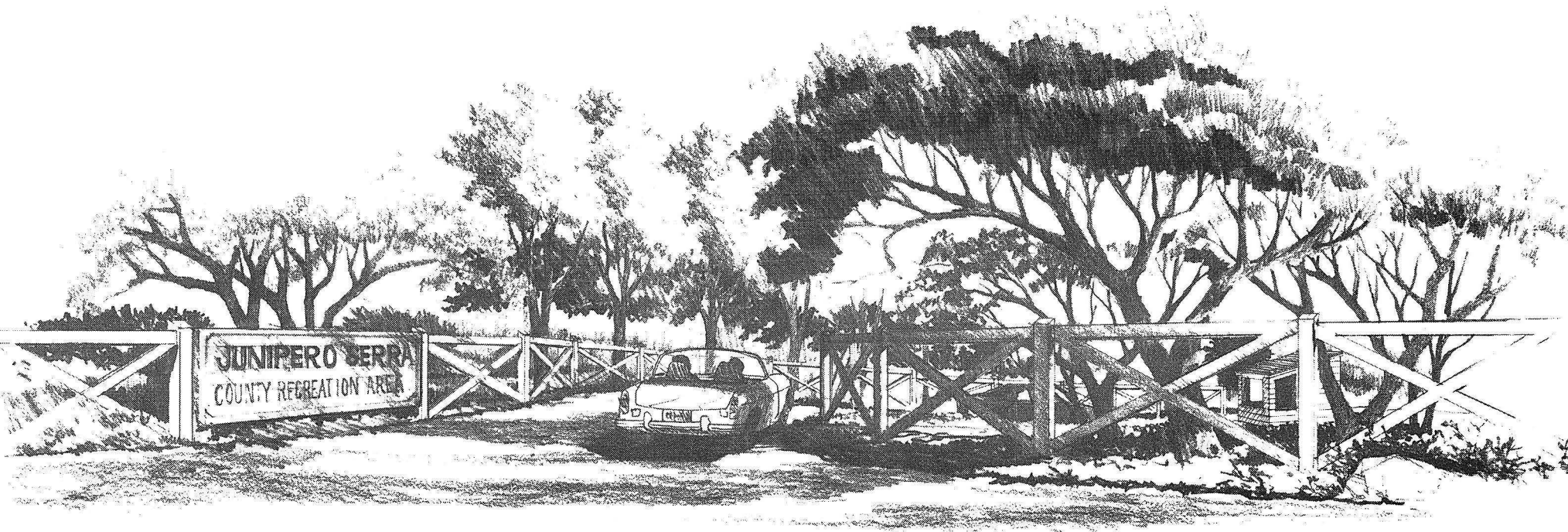
- o Entrance Control Station - The entrance station controls vehicular access to the Recreation Area. Located within a traffic island the station consists of a control booth with windows located on both sides, a small storage space, a telephone, a one-toilet restroom with sink, and a car counter. A split-rail fence starting opposite the Area entrance sign to the north along Crystal Springs Road will extend all the way to the entrance control booth. A similar fence will start from the south along Crystal Springs Road and extend only as far as the swing gates found immediately at the Area entrance. Entrance signage will be incorporated with the split-rail fence.

Area/space characteristics:

- Control Booth 40 sq. ft.
- Storage Area 30 sq. ft.
- Restroom 30 sq. ft.

## 2. Roads and Parking

The main road which connects all use areas within the Recreation Area will be a 2-lane, 22' wide asphalt pavement. It will be realigned within the Meadow View Area, following an existing service



**RECREATION AREA ENTRANCE/CONTROL BOOTH**

road, to free open the site for the Headquarters/ Visitor Center. The existing Recreation Area entrance off Crystal Springs Road will be relocated to the north end. The new entrance will provide better sight lines up and down Crystal Springs Road exiting the Area and a flatter entrance to the Area than what now exists.

Two dirt roads will be maintained for service and fire control: one running parallel to El Zanjon Creek connecting with Helen Drive, and the other running from the Headquarters/Visitor Center through the eastern grassland eventually connecting with Lomita Avenue (future option). The grade from a portion of the existing loop road around Coonskin Cap will also be left intact for fire control and maintenance of the windmills. It will be allowed to grass over after the road has been demolished to take on a more natural appearance. The remainder of the loop road will be regraded to conform to the natural contour of the land and reclaimed to grassland conditions.

There are a total of 184 parking spaces provided at the various use areas. In addition, there is expansion space capability for an addition 45 cars should demand warrant it.

### 3. Picnic Areas

Nine individual family and group picnic areas are shown in the development plans. De Anza I and De Anza II Picnic Areas will remain essentially as they exist today, but will be excluded from large group use through the County's reservation program.

The western portions of the Meadow View Area near the Area Headquarters/Visitor Center will also be developed exclusively for small groups (less than 20) and family picnicking. Each of 5 individual sites within the area will contain 3 tables, 1 fireplace and water spigot. Tables and fire pits will be relocated from Coonskin Cap.

Three group picnic shelters will exist in the Meadow View Area facing an irrigated playfield. One of these will be sited at the existing Crows Nest site. Each will be designed to accommodate 90 people comfortably. As reservation requests are made for group areas these will be used first.

Day camp activities will be removed from the upper sections of El Zanjon Creek. The Willows

amphitheater and Oak Cove Areas will then serve as multi-purpose picnic/camping areas. Priority will be given first to family picnic use of the Willows Area and walk-in picnic use of the amphitheater and Oak Cove Areas. However, if demand exists for additional group sites beyond those in Meadow View then the Willows Area will function as an open group facility.

The De Anza and Meadow View Picnic Areas will be irrigated and maintained to reduce fire hazard and surface erosion. All developed picnic sites, with the exception of the Oak Cove Area, are within 400 feet of restrooms.

#### 4. Open Play/Playground Areas

Irrigated grass meadows will be maintained for low intensity use throughout the De Anza Area. The grass will be mowed but allowed to grow high to give the appearance of a natural meadow.

Turf playfields at Meadow View Area are irrigated and mowed for spontaneous play. No formal sports facilities are to be included.

Two new playgrounds will be developed at De Anza and Meadow View Areas respectively. These will be designed for use for ages 2 through 12.

#### 5. Utilities

The existing utility infrastructure of the Recreation Area will require no major modifications to support development proposals. Pending results of wind tests atop Coonskin Cap, a windmill would be installed. This would directly service the Recreation Area with any excess power generated sold to PG&E.

#### 6. Trailheads

There are two trailheads located in the Recreation Area, one near the De Anza parking lot and the other in front of the Headquarters/Visitor Center. Drinking fountains and information boards would be located at each. Maps of the Area's trail system and interpretive trail guides would be available. Bulletin board space would be provided to post information regarding trail closures, unique flora in blossom, etc. Restroom facilities are located nearby.

## 7. Trails

There are 3.3 miles of major trails proposed within the Recreation Area boundaries. They form a series of interconnecting loops so as to provide many different route and mileage alternatives to the Area visitor. Table 2 summarizes selected trail and loop characteristics.

Typical trail treads will be 4' wide composed of natural duff, and under 10% slope. Where greater slopes are encountered steps/water bars will be used for both ease of hiking and protection against soil erosion. Where possible, eucalyptus logs from the reforestation program should be used in trail step construction. Interpretive trails will have trail markers keyed to guides available at the De Anza Meadow View trailhead kiosks.

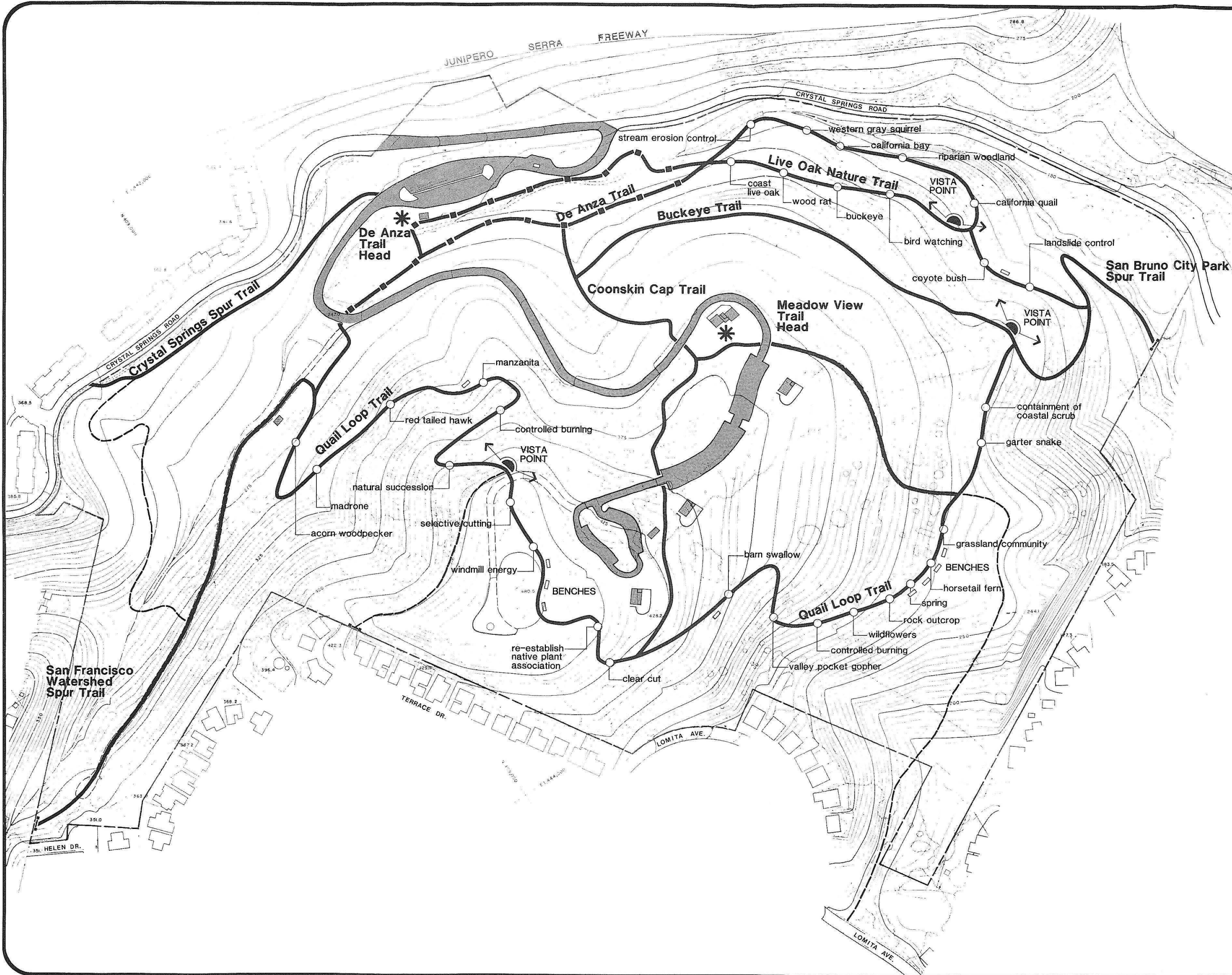
- o De Anza Trail (.3 mile) - Circulating through the De Anza Picnic Area, this trail will be 5' wide, paved, have handicapped/wheelchair access, and serve as well for access to the various picnic facilities along it. It follows the course of the existing nature trail through the Oak Woodlands and will return along the renovated El Zanjon Creek Drainage. (Interpretive Trail)
- o Live Oak Nature Trail (.3 mile) - Basically an extension of the De Anza Trail, it also follows the route of the existing nature trail through the Oak Woodland and Coastal Scrub plant communities. The Live Oak Nature Trail will be reconstructed to a 4' wide tread without steps for wheelchair access in one direction. A decked vista point overlooking El Zanjon Creek will be constructed at the half-way point along the trail. (Interpretive Trail)
- o Quail Loop Trail (1.2 miles) - The main Recreation Area loop trail, it travels through all the landscape units represented within the Area. The trail provides ideal conditions for school and special interest groups as its length would be approximately 1.5 miles if started from the Interpretive Center or 1.6 miles if started from San Bruno City Park. Decked vista points will be provided at two points along the trail: near the junction with Buckeye Trail where an excellent overview of the lower portions of El Zanjon Creek Drainage, Oak Woodlands and northern peninsula exist, and; on the west side of Coonskin Cap where an expanded

Table 2

SELECTED TRAIL AND LOOP CHARACTERISTICS




TRAIL NAME	DISTANCE	ELEVATION CHANGE	DIFFICULTY	TREAD CHARACTERISTICS
o De Anza Trail	1800' loop trail	25'	Easy	5' paved
o Live Oak Nature Trail	1800' loop trail 3600' when loop trail used with De Anza Trail	75'	Easy (Moderate for wheelchairs)	4' unpaved, no steps, overlook platforms
o Quail Loop Trail	6300' (1.2 miles) - includes sectional use of De Anza and Live Oak Trails	375'	Hard	4' unpaved, steps, benches, overlook platforms
o San Bruno City Park Spur Trail	1200' (.2 mile) (to existing San Bruno City Park Trail)	50'	Moderate	4' unpaved with steps
	8700' (1.6 miles) loop trail when used with Quail Loop Trail	425'	Hard	
	3400' (.6 mile) loop trail when used with De Anza and Live Oak Trails	125'	Moderate	
o Coonskin Cap Trail	1400'	200'	Hard	4' unpaved with steps
o Buckeye Trail	1350'	20'	Easy	4' unpaved with steps, vista point
o San Francisco Watershed Spur Trail	1700' (to Area boundary)	100'	Moderate to Easy	10' dirt access road





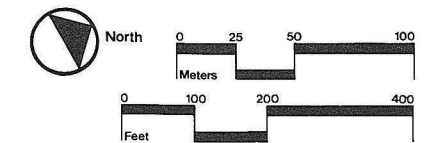
# TRAIL SYSTEM

## LEGEND

-  Surfaced Trail 5'
-  Major Trail 4'
-  Access Trail 2'
-  Trail Head
-  Overlook Platforms
-  Interpretive Features
-  Trail Gates

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view of the Recreation Area, the entire El Zanjon Creek Drainage, Junipero Serra Freeway, and the peninsula may be found. These vista points also roughly correspond to the highest and lowest sections of the trail and are ideally located to provide convenient resting places. Through the lower eastern meadows of the Recreation Area where the microclimate is particularly sheltered from wind by the form of the hill behind, a series of benches will be placed along the trail where excellent vistas eastward to San Francisco International Airport and Mount Diablo exist. In the springtime this section of trail also exposes the hiker to outstanding displays of wildflowers. Additionally, benches will be placed atop Coonskin Cap, the highest point in the Recreation Area. (Interpretive Trail)

- o Coonskin Cap Trail (.25 mile) - Connecting the De Anza and Meadow View use areas with the Headquarters/Interpretive Center, this trail serves two additional functions. First it provides for a series of trail loop alternatives to the use of the entire Quail Loop Trail. Second, it provides a quiet, pedestrian alternative to walking along the Area road for recreationists in the De Anza or Oak Grove Areas wishing to visit the Interpretive Center. The trail between De Anza and the Interpretive Center is, however, very steep and will require stepping and rails.
- o Buckeye Trail (.25 mile) - A virtually level trail which offers the hiker an excellent journey through the Recreation Area's prime example of Coastal Scrub.
- o San Bruno City Park Spur Trail (.2 mile) - This major trail would terminate at the existing automobile circle in the westernmost portion of San Bruno City Park. A walk-through gate and bulletin board for current Recreation Area programs, closures, etc. would be installed at the Area's boundaries.
- o San Francisco Watershed Spur Trail (.4 mile) - From the parking lot for the Willows/Oak Grove Area, this trail tread is 10' wide and follows the existing service road. Outside the Recreation Area this trail would use an existing San Francisco Water District service road under Junipero Serra Freeway to connect with the existing network of regional trails. A walk-

through pedestrian gate and information bulletin board would be placed at the Recreation Area boundary.

- o Meadow View Trail (.2 mile) - This trail follows an old service road and is 10' wide. It would be used as the most direct route to the Interpretive Center from San Bruno City Park. The distance between the City Park and the Interpretive Center is .5 miles.
- o Crystal Springs Spur Trail (.25 mile) - To be developed along the edge of the San Francisco Water District pipeline right-of-way, this trail would link the Crystal Springs Apartments to the De Anza Area trailhead.
- o Access Trails - Low-key access trails with a maximum 2' wide tread will be maintained to Helen Drive, Terrace Drive, and Lomita Avenue. No signage would be placed at these streets to discourage other than neighborhood residents from using them. Where they connect with the major trail system of the Recreation Area, low guard barriers will be placed to discourage other area users from wandering into the neighborhood.

## 8. Maintenance/Corporation Yard

In order to reduce aesthetic conflict and to provide additional picnic space in the Meadow View Area, the Maintenance/Corporation Yard will be relocated to the fringes of the Recreation Area. This will be a full-service facility with employee restrooms and showers, vehicle storage, stockpile areas and storage bins, pipe and lumber storage areas, gas pump, vehicle washing area, and offices. Security lighting, fencing, and alarms will be included.

Two realistic alternatives exist within the Area for siting the Maintenance Yard: (1) off Crystal Springs Road at a location referred to as the "green dump," and; (2) off Lomita Avenue in the southeast corner of the Recreation Area. Table 3 compares the advantages and disadvantages of each.

## 9. Signage

One difficulty with the Recreation Area is that many do not know where it is. Many of the users of

Table 3

COMPARISON OF ALTERNATIVE SITES FOR MAINTENANCE/  
CORPORATION YARD

	<u>Advantages</u>	<u>Disadvantages</u>
<u>Off Crystal Springs Road (Preferred Site)</u>	<ul style="list-style-type: none"> <li>o Ease of surveillance by police</li> <li>o Ease of access for materials delivery</li> <li>o Remote--no surrounding land uses</li> </ul>	<ul style="list-style-type: none"> <li>o Use of Crystal Springs Road for access to facilities</li> </ul>
<u>Off Lomita Avenue</u>	<ul style="list-style-type: none"> <li>o Additional service access/entrance to Recreation Area</li> <li>o Direct access to Area facilities</li> </ul>	<ul style="list-style-type: none"> <li>o Incompatible with surrounding residential land use</li> <li>o Noise of service vehicles going up and down service road to Meadow View Area</li> <li>o Use of residential streets for materials delivery</li> <li>o Need to acquire City of Millbrae property or right-of-way easement to Recreation Area</li> <li>o Visual Impact--need to develop road-cut through eastern grasslands</li> </ul>

the Area come from the north. It is recommended that signage to the Recreation Area be placed on the southbound exit to Crystal Springs Road of the Junipero Serra Freeway (to be done in cooperation with the California Transportation Department). Additionally, directional signs should be placed on El Camino Road and at San Bruno City Park to direct traffic from the east.

#### D. The Management Plan

##### 1. General Management Activities

Table 4, Management Activities Program, lists those management functions which will take place in the Recreation Area. Also shown are individual techniques to be employed, the general location, timing, and purpose of each activity, and the personnel responsibility for each.

##### 2. Revegetation Program

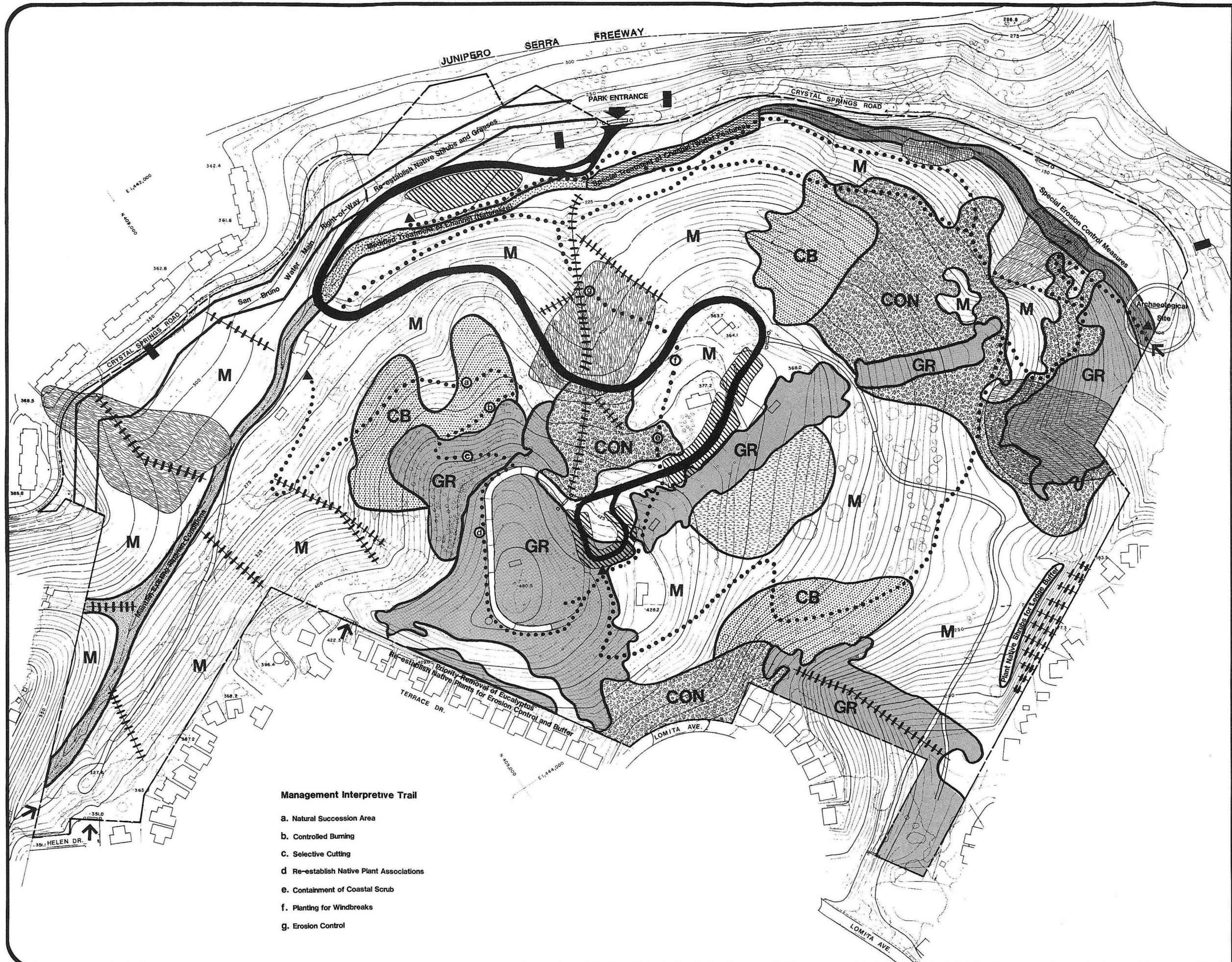
###### o Removal of Eucalyptus

One of the primary recommendations of the 1979 Natural Resource Area Management Plan for the Recreation Area is the gradual removal of exotic species, particularly Blue Gum (Eucalyptus globulus) and replacement with native oak/coastal scrub/grassland communities. Eucalyptus is extremely invasive. It grows and spreads rapidly, chokes out nearly all native trees and understory except Poison Oak. It presents a serious threat to native communities throughout the Recreation Area. The trees create a hazard by dropping branches and large pieces of bark, sometimes unannounced during the dry summer months, and the dense accumulation of slash and litter under the trees makes walking difficult and increases the fire hazard. Trees resprout readily from stumps, so eradication can be laborious. The following guidelines for removal should be used:

Step 1 - After felling tree recut stump as close to ground surface as feasible.

Step 2 - Scrape loose soil away from base of stump.

Step 3 - Strip all bark from the stump and any exposed roots to below the soil

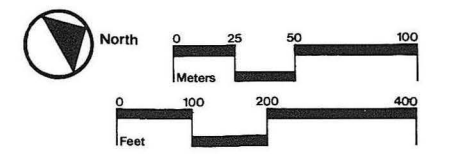


# MANAGEMENT PLAN

- LEGEND**
- Public Road
  - Service Road
  - Control Gate
  - Parking
  - Major Trail
  - Management Interpretive Trail
  - Trail Marker
  - Road Sign
  - Pedestrian Entrance (Daytime Only)
  - Gradual Removal of Exotics/ Re-establish Native Plant Associations
  - Containment of Coastal Scrub
  - Maintain Existing Conditions with Limited Alterations to Remedy Specific Conditions
  - Possible Controlled Burning Area
  - Landslide Area
  - Gully Erosion

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- Management Interpretive Trail**
- a. Natural Succession Area
  - b. Controlled Burning
  - c. Selective Cutting
  - d. Re-establish Native Plant Associations
  - e. Containment of Coastal Scrub
  - f. Planting for Windbreaks
  - g. Erosion Control

Table 4

MANAGEMENT ACTIVITIES PROGRAM

MANAGEMENT ACTIVITY	METHODS EMPLOYED	LOCATION	TIMING	PURPOSE	PERSONNEL RESPONSIBILITY
- Haying Program	Mowing or greenchopping	o Grasslands	May-July	o Fire Control	o Staff
- Noxious Weed Control	1. Mechanical 2. Biological 3. Chemical (in order of priority)	o Areawide	Off Season	o Control of Poison Oak, Scotch Broom, etc.	o Staff o Contract o Volunteer
- Public Use Monitoring	o Registration o Carcounters o Electric Eye* o Photographs	o Main Gate o Trail Entrances o Use Areas	o Random	o Document and control effects of visitor use o Carrying Capacity	o Staff
- Fire Control		o Areawide	o As Needed	o Public Safety	o (1) City of San Bruno and (2) Milbrae (both to have keys) under Joint Powers Agreement with County
- Water Quality Control	o Sampling o Stream Flow Gauge*	o El Zanjon Creek at proposed ponds in DeAnza Picnic Area and at boundary with San Bruno City Park	o Weekly during season o Bi-Weekly during off- season	o Public Health o Habitat Maintenance	o Staff
- Water Management	o Flashboard Manipulation	o Zanjon Creek	o Before and after rainy season	o Erosion Control	o Staff
- Public Relations Program	o Lectures/Nature Walks/ Campfires o News Releases o General Information Packets	o Developed Use Areas	o Year-round	o Environmental Education	o Staff o Docents from Coyote Point Museum o Private Organizations

MANAGEMENT ACTIVITY	METHODS EMPLOYED	LOCATION	TIMING	PURPOSE	PERSONNEL RESPONSIBILITY
- Area Closures	o Vehicle Closures	o Use Areas	o As Required	o Low Use o Rehabilitate Areas	o Staff
	o Trail Closures	o Areawide		o Fire Alert o Wet Trails/Rehabilitation	o Staff
- Prescribed Burning	o Torch Small Plots	o As indicated on Management Plan	o Winter	o Maintain habitat productivity by interrupting succession	o Staff o Contract
- Trail Maintenance	o Hand Labor	o Areawide	o Semi-Annually Fall/Spring	o Erosion Control o Public Safety	o Staff o Contract o Volunteers
	o Trail Machines*				
- El Zanjon Creek Clearing	o Mechanical o Flushing	o El Zanjon Creek	o Semi-Annually Fall/Spring	o Erosion Control o Public Safety	o Staff
		o Sediment Basin	o Every 3 years		o Contract
- Solid Waste Removal	o Truck o Recycling Program	o Areawide o Parking Lots	o Weekly and as needed	o Reduce Costs/Energy Efficiency	o Staff/Contract o Staff and Public
- Gate Control o Main	o Swing Gate	o Recreation Area Entrance	o After Sunset	o Visitor Use Control	o Staff
	o Pedestrian	o Walk-through Gates o Trail to S.F. Water-Shed Lands o Trail to San Bruno City Park		o Bicycle/Motorcycle Control	
- Contain Coastal Scrub	o Mechanical	o As indicated on Management Plan	o Initially and then every 5 years	o Maintain species diversity	o Staff Contract
- Plant Community Rehabilitation	o Mechanical o Biological	o As indicated on Management Plan	o Winter/Spring	o Reestablish Native Plant/ Habitat Associations	o Staff o Contract
- Wildlife Monitoring Program	o Record Sightings	o Areawide	o Anytime	o Resource Inventory	o Staff o Volunteers o Interns
	o Live Trapping	o El Zanjon Creek	o Semi-Annually		



MANAGEMENT ACTIVITY	METHODS EMPLOYED	LOCATION	TIMING	PURPOSE	PERSONNEL RESPONSIBILITY
- Preventive Maintenance o Major Facilities o Tables and Pits o Roads o Equipment o Utilities	o As Prescribed o As Prescribed o As Prescribed o As Prescribed o As Prescribed	o Areawide o Areawide o Areawide o Areawide o Areawide	o Winter/Annually o Winter/Annually o Semi-Annually o As Scheduled o Winter/Annually	o Upkeep	o Staff o Staff o Staff/Contract o Staff o Staff/Contract
- Staffed Gatehouse		o Park Entrance	April-October Weekends/Holidays	o User Fee Collection o Monitor Use	o Staff
- Staffed Interpretation Program		o Interpretive Center	o April-October Weekends/Holidays (8-5) o All Year As Scheduled		o Staff o Docents from Coyote Point Museum
- Wind Monitoring	o Anemometer*	o Coonskin Cap	All Year	o Estimate appropriateness of Windmills	o Staff
- Boundary Survey			One Time	o Establish Recreation Area Boundaries to Avoid Encroachment	o Contract

\* San Mateo County Parks system-wide equipment

level. This should prevent sprouting from the root crown.

Step 4 - Replace soil around the base of the stump. This will help promote the rotting of the stump.

Step 5 - If stump sprouts appear, repeatedly remove sprouts physically before they reach 6" in length. This process will ultimately exhaust stored food reserves and stop resprouting. This procedure may take more than a year.

Step 6 - If stump sprouting persists, as a last resort, consider treating stumps and/or sprouts with chemicals recommended by the County Agriculture Commissioner.

There are generally two techniques recommended for the long-range elimination of eucalyptus groves in the Recreation Area. The first, clear cutting in large blocks, should be employed where the desired replacement community will be either grassland or coastal scrub. The species of these communities require direct sun to become established and are fairly shallow-rooted, hence, more susceptible to competition from any nearby eucalyptus roots and litter. Grasses should be reseeded annually until well established.

The second method is gradual thinning of groves where the replacement community would be oak woodland or other species used for windbreaks in and around the Meadow View use area.

The four phases for eucalyptus removal shown on the Management Plan map should begin immediately. For instance, the windbreak hedgerows of eucalyptus along the existing Meadow View parking area should be immediately topped to encourage sprouting until which time the redevelopment of the recreation facilities is programmed. At that time, selective thinning might commence with a second and final thinning completed sometime after construction.

o Removal of Monterey Pine and Monterey Cypress

These species should also be phased out of the Recreation Area. An exception is those young trees planted in the past 15 to 20 years as a windbreak around the existing Ranger Residence. These should be preserved to provide protection to the family picnic facilities programmed for that site.

o Landslide, Gully, and Trail Rehabilitation

Landslide areas shown on the Management Plan map should be revegetated as quickly as possible. As the hillsides of the Recreation Area slump and slide, vegetation is uprooted which reduces its effectiveness in checking erosion.

Eroded gullies and random trails which are not part of the proposed trail system should also be rehabilitated.

Appendix A, Availability of Native Plant Materials, outlines species found within the plant communities at the Recreation Area. It identifies which of them may be available commercially either as seed or container stock as well as which are native to the site or introduced species.

At a time when meager remnants of California grasslands are being sought for preservation, it is pleasing to find unplowed grasslands yet in existence in the Recreation Area. A little less than half of the Area falls in this community, though much has been disturbed. A number of perennial native grasses are well represented in the east grassland area and surprisingly so in the northerly smaller area. Even along the trails where water has stood early in the year, perennials, California Wild Oatgrass (Danthonia californica) and Meadow Barley (Hordeum brachyantherum) are extensive. The south grasslands below the highest knoll and west grasslands show a much higher percentage of introduced species. It is recommended that grass seed be collected from the east and north grassland areas to be planted in the south and west sections in the fall, prior to the rainy season. With the greater root system of the

native perennials, less erosion would be expected. Note should be made that native grass seed should be utilized in the seeding project. All of the grasses recommended in the 1979 Natural Resource Management Plan are introduced, such as Hardinggrass (Phalaris aquatica), Orchardgrass (Dactylis glomerata) and Alta, or Tall Fescue (Festuca arundinacea), and should be avoided. Recommended ones growing in the Recreation Area are Pine Bluegrass (Poa scabrella), California Wild Oatgrass (Danthonia californica), California Hairgrass (Deschampsia caespitosa, ssp. holciformis) and California Brome (Bromus carinatus). For damp sites, Alkali Rye Grass (Elymus triticoides), Branched Alkali Rye Grass (Elymus triticoides var. multiflorus), and Meadow Barley (Hordeum brachyantherum) are recommended. Seed of these species are also available in the Recreation Area.

o Park View Drive Hillside Stabilization

The existing cut on the east boundary of the Recreation Area presents a liability for the recreationist and image concerns to the downslope residents. The barren slope can clearly be seen from the San Francisco Airport. Though no major instability problems have occurred in the recent past, it is slowly eroding. Neighborhood children often play on the slope and precipitate additional runoff/erosion problems. The slope should be stepped back. An overall slope ratio of 1 to 1 would require cutting into the park well up the scenic meadows which provide the magnificent visual backdrop for San Bruno. A step ratio of 1 to 2 with 4' horizontal planting beds is recommended. Uphill drainage tile should be installed to move hillside runoff and water from the uphill spring around to the sides.

o Invasive Shrubs

Three invasive shrubs currently grow within the Recreation Area which should be eradicated. These are:

- (1) Italian Thistles (Cardus pycnocephalus) - should be removed by use of herbicide under the advice of the County Agriculture Commissioner.

(2) Pampas Grass (Cortaderia sp.) - located at the northeast corner and western end of old service road, below the existing playground in the Meadow View area, and at the southwest corner of the Recreation Area near Helen Drive.

(3) Broom (Cytisus spp., Spartium sp.)

### 3. El Zanjon Creek

The rehabilitation of El Zanjon Creek to both check the pace of erosion and enhance the amenities of the De Anza use area is a high priority. Much of the water in the drainage is from irrigation runoff or runoff from Junipero Serra Freeway during storms. It is typically runs clear which increases its erosion capability.

The upper end of the Creek channel within the Recreation Area is in relatively stable condition. Some side down drain structures to the Creek have been installed. These should be extended to the Creek bed with additional structures installed where gully erosion is occurring. Small rock and log check dams should be placed intermittently along the Creek to dissipate the flow of water.

The concrete channel now in the De Anza Area does prevent erosion but also allows the water to speed up as it flows downstream. This only exasperates erosion conditions in the lower channel. A new culvert sufficient in size to handle runoff under the main access road should be installed (the current drainpipe is undersized and water constantly backs up and overflows the road). At the north end of the concrete channel, three checkdams are proposed. The last would include concrete energy dissipaters where the water enters the lower Creek section. The ponds behind the dams would be no more than 4' deep. Flashboards would be included in the design of the dams so that the pools could be drained and cleared annually of any aquatic vegetation which may root. The channel itself, between the access road and the first pond would be camouflaged with 3" to 6" round river-rock adhered directly to the channel and larger boulders on the outside edge of all turns. Random boulders would be placed elsewhere along the channel,



**EL ZANJON CREEK EROSION CONTROL PONDS**

infilled with soil, and planted with riparian species. This alternative would be less than half the price of undergrounding the entire channel. It also has the advantage of providing an additional amenity to the picnicking experience of De Anza facilities.

The lower sections of El Zanjon Creek present the most serious erosion and stability problems. Check dams and Gabion bank protection would be built along the channel where conditions warrant. A concrete spillway and energy dissipater for the downdrain from Junipero Serra Freeway (see gully erosion symbol near Crystal Springs Road in the northern corner of the Management Plan Map) would also be built. This condition is extremely serious and requires immediate remedy. Finally, a sediment basin would be installed near the edge of the Recreation Area boundary. A more ideal location for the sediment basin may exist just downstream, technically in San Bruno City Park. The County and City should jointly evaluate all potential locations.

#### E. Future Options

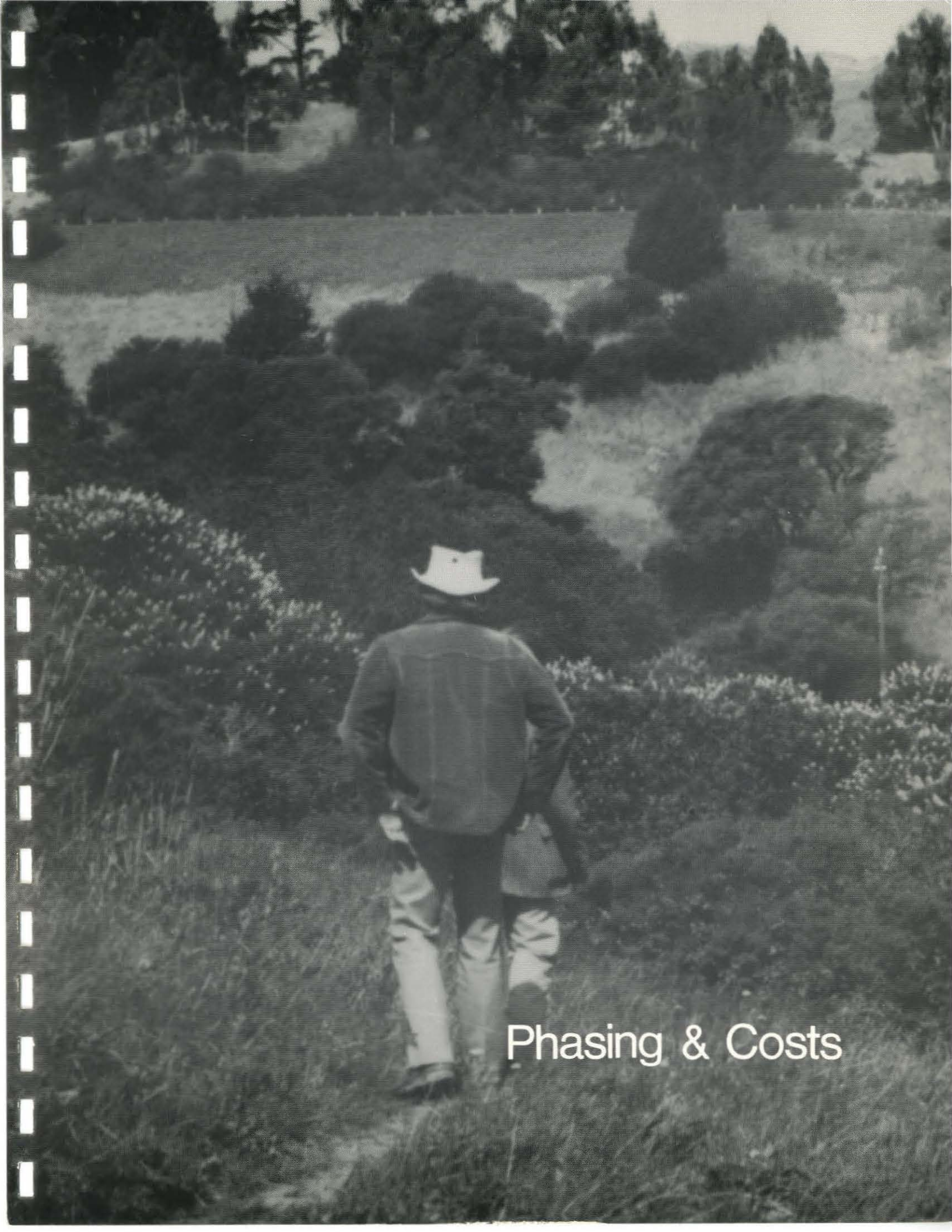
Future options are proposals which could happen at any time. Typically, these consist of development proposals which would require special consideration because of: (1) expense; (2) relationship with existing County policy, or; (3) required cooperation with other agencies. The implementation of other development and management proposals could be carried forward with or without these options.

- o Ranger Residence - The existing Ranger Residence occupies an approximately 1-acre level site. Its presence provides a sense of security to the Area recreationists as well as to residents from the surrounding neighborhoods. Development proposals for the Meadow View Area could generally be implemented without the removal of the house by sacrificing some family picnic facilities. However, the Residence is an incongruous element and does limit use within the Recreation Area. Ideally, it should be removed and a new facility constructed elsewhere. Two potential locations exist. The first would be in conjunction with the proposed Corporation Yard off Crystal Springs Road. This is the preferred site as it would provide additional security for that facility. An alternative location for a residence would be on Lomita Avenues. Its advantage is that the Ranger would still be within

eyesight of the Meadow View Area and Coonskin Cap and also be one of the neighborhood residents. It would be an ideal location to build a strong "good neighbor" policy between the Recreation Area management and the community.

- Area Headquarters/Visitor Center - This proposal will require special funding consideration by the Parks and Recreation Commission prior to implementation.
- Coonskin Cap Windmill - Once all eucalyptus have been removed from Coonskin Cap and assuming that wind monitoring program points towards feasibility, a windmill(s) will be erected to provide the Recreation Area with electricity.
- Road Rehabilitation - The main Recreation Area road from De Anza to Meadow View would be upgraded to a 22' two-lane road with curbs.
- San Francisco Watershed and Crystal Springs Spur Trails - Both these trails will require agreement with the San Francisco Water District for their implementation. The extension of the trail system through the District's filtration plant will require special security measures. The Crystal Springs Spur Trail, which will offer immediate pedestrian entrance to the Area and a more natural alternative to the sidewalk which no exists, will use the District's easement through the Recreation Area.
- Willow/Oak Cove Use Area - The renovation of the use area for picnicking will follow the transfer of existing day camp use to other units of the County Park System.





Phasing & Costs

### III. PHASING AND COSTS

Development of the Recreation Area has been separated into four phases. Generally, these are:

Phase 1 - consists of erosion control measures along El Zanjon Creek which require immediate attention and which should be completed prior to any other physical development activities. In addition, the entrance to the Recreation Area would be relocated, a new control station and parking rehabilitation for the De Anza Picnic Areas would be developed. Signing to the Recreation Area from the surrounding freeways and El Camino Real would be installed.

Stands of eucalyptus along the Area's boundaries which present a hazard to neighborhood residences will be removed and used as necessary in trail construction. The existing eucalyptus hedgerow at Meadow View Picnic Area should be topped to encourage sprouting and effectiveness as a windbreak for the Meadow View area until which time the area is rehabilitated.

Phase 2 - development activities focus on rehabilitating the De Anza use area and expanding group use of the Meadow View area by adding a new shelter building.. Channel renovation of El Zanjon Creek through the De Anza area will be completed.

The major loop trails of the Recreation Area will start to be developed while the numerous makeshift trails which exist and which are creating potential erosion problems would be rehabilitated/revegetated back to the pattern of the surrounding landscape unit.

Phase 3 - represents a major effort at expanding recreation opportunities in the Meadow View/Crows Nest/Coonskin Cap Areas. The Area's Corporation Yard will be relocated, the area rehabilitated, and a major connecting trail (Coonskin Cap Trail) developed between De Anza and the hilltop.

It is envisioned that the long-range effort of returning Coonskin Cap to a native grassland/oak woodland landscape would commence in this phase.

Future Options - include removing and relocating the Area's Ranger Residence, constructing the Headquarters/Visitor Center, establishing windmills on Coonskin Cap to power Area facilities, renovating the Willows/Oak Cove use area, regrading the Park View Drive hillside, and rehabilitating the main park road between De Anza and Meadow View use areas.

A summary and detailed breakdown of development costs follows in Table 5.

Projected annual staffing needs and costs which would ultimately be needed for the Recreation Area are shown in Tables 6 and 7 respectively. Levels shown assume that all development proposals are complete and that the Recreation Area is fully operational.

Average annual water costs for irrigation of turf areas would be approximately 8,000/year if drought tollerant grasses combined with conservative irrigation program were employed.

Table 5

DEVELOPMENT COSTS/PHASINGSUMMARY

	Total All Phases	Phase 1 (Year 1)	Phase 2 (Years 2-3)	Phase 3 (Years 4-10)	Future Option
o DE ANZA USE AREA	387,400	52,400	300,000	35,000	
o WILLOWS/OAK COVE USE AREA	141,250			20,000	121,250
o MEADOW VIEW/CROWS NEST/COONSKIN CAP USE AREA	1,060,900		50,000	806,900	204,000
o EL ZANJON CREEK EROSION CONTROL/RESTORATION PROGRAM	226,500	159,000	67,500		
o AREA-WIDE TRAIL SYSTEM	83,850	7,600	33,350	41,500	1,400
o MISCELLANEOUS FACILITIES/MANAGEMENT PROGRAMS					
- Corporation Yard	400,000			400,000	
- Ranger Residence	200,000				200,000
- Park View Drive/Hillside Stabilization	208,500				208,500
- Revegetation Program	153,850	14,000		139,850	
- Signage	5,000	3,000	1,000	1,000	
<b>SUB-TOTAL</b>	<b>2,867,250</b>	<b>236,000</b>	<b>451,850</b>	<b>1,444,250</b>	<b>735,150</b>
Contingencies @ 20%	573,450	47,200	90,370	288,850	147,030
	<b>3,440,700</b>	<b>283,200</b>	<b>542,220</b>	<b>1,733,100</b>	<b>822,180</b>
A/E @ 10%	344,000	28,300	54,200	173,300	88,200
<b>TOTAL</b>	<b>3,784,700</b>	<b>311,500</b>	<b>596,420</b>	<b>1,906,400</b>	<b>970,380</b>

DE ANZA USE AREA

Item Description	Quantity	Price	Phase 1 (Year 1)	Phase 2 (Years 2-3)	Phase 3 (Years 4-10)	Future Option
Entrance Station with bathroom, storage, car counter, control gates	1	35,000	35,000			
Restroom Rehabilitation	1	20,000		20,000		
Landscape Rehabilitation						
o Turf Fields w/Irrigation	2-1/2 acres	187,500		187,500		
o Site Grading, Mass Excavation, Culverts, Area Trails	lump sum	50,000		50,000		
Tree Planting	75 trees	7,500		7,500		
Paving for roads and parking - Parking Bumpers, Curbs, Gutters, Striping	30,000 sq. ft.	45,000	10,000	35,000		
Playground	1	35,000			35,000	
Road/Parking Lot Demolition	8,000 sq. ft.	2,400	2,400			
Entrance Signing	lump sum	5,000	5,000			
	<b>SUB-TOTAL</b>	<b>387,400</b>	<b>52,400</b>	<b>300,000</b>	<b>35,000</b>	

WILLOWS/OAK COVE USE AREA

Item Description	Quantity	Price	Phase 1 (Year 1)	Phase 2 (Years 2-3)	Phase 3 (Years 4-10)	Future Option
Paving for parking area - Striping, Parking Bumpers, Curbs and Gutters	5,000 sq. ft.	7,500				7,500
Amphitheater/Campfire Ring	1	15,000				15,000
Walk-in Picnic/Group Camping Areas	2 group sites	20,000			20,000	
Restroom	1	75,000				75,000
Building Demolition	2	5,000				5,000
Turf Field/Irrigated	1/4 acre	18,750				18,750
	<b>SUB-TOTAL</b>	<b>141,250</b>			<b>20,000</b>	<b>121,250</b>

MEADOW VIEW/CROWS NEST/COONSKIN CAP USE AREA

Item Description	Quantity	Price	Phase 1 (Year 1)	Phase 2 (Years 2-3)	Phase 3 (Years 4-10)	Future Option
Picnic Shelters	3	150,000		50,000	100,000	
Restrooms	1	75,000			75,000	
Headquarters/Interpretive Center	1	150,000				150,000
Landscape Rehabilitation						
o Turf Fields w/Irrigation	5 acres	375,000			375,000	
o Site Grading, Mass Excavation, Culverts, Headwalls, Area Trails	lump sum	80,000			80,000	
Paving: Roads and Parking Areas, Headers, Striping, Parking Bumpers	6400 sq. ft.	96,000			96,000	
Playground	1	35,000			35,000	
Volleyball/Horseshoes Area	1	15,000			15,000	
Windmills and Electrical Hookup	1	35,000				35,000
Road Demolition	28,000 sq. ft.	8,400			8,400	
Building Demolition	4	11,500			7,500	4,000
Relocate Picnic Facilities from Coonskin Cap		15,000			15,000	
Rehabilitate De Anza to Meadow View Road		15,000				15,000
	<b>SUB-TOTAL</b>	<b>1,060,900</b>		<b>50,000</b>	<b>806,900</b>	<b>204,000</b>

EL ZANJON CREEK EROSION CONTROL/RESTORATION PROGRAM

Item Description	Quantity	Price	Phase 1 (Year 1)	Phase 2 (Years 2-3)	Phase 3 (Years 4-10)	Future Option
Upper Creek						
o Side Downrain Structures to Creek	1000'	15,000	15,000			
De Anza						
o Channel renovation, riprap lining, boulders, riparian planting	1500'	37,500		37,500		
o Check dams/grouted rock and earth fill, riprap, flashboards, and concrete energy dissapators	3	45,000	15,000	30,000		
o Side downrain/erosion control measures	600'	9,000	9,000			
Lower Creek						
o Check dams/flashboards and concrete energy dissapators	4	60,000	60,000			
o Sediment Basin	1	10,000	10,000			
o Gabion Channel Bank Protection	200 yds.	30,000	30,000			
o Streamside Revegetation		5,000	5,000			
o Concrete spillway or energy dissapator for downrain from Junipero Serra Freeway	1	15,000	15,000			
<b>SUB-TOTAL</b>		<b>226,500</b>	<b>159,000</b>	<b>67,500</b>		

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AREA-WIDE TRAIL SYSTEM

Item Description	Quantity	Price	Phase 1 (Year 1)	Phase 2 (Years 2-3)	Phase 3 (Years 4-10)	Future Option
De Anza Loop Trail (5' paved)	1800'	9,000	4,000		5,000	
Live Oak Native Trail (4' duff)						
o Trail	1800'	3,600	3,600			
o Overlook Platform	1	10,000		10,000		
Quail Loop Trail (4' duff with steps)						
o Trail	5400'	13,500		13,500		
o Overlook Platforms	2	20,000			20,000	
o Benches	10	7,000			7,000	
Buckeye Trail (4' duff)	1350'	2,700			2,700	
Coonskin Cap Trail (4' duff with steps)	1400'	4,200			4,200	
Crystal Springs Spur Trail (4' duff)	150'	600				600
San Bruno City Park Spur Trail (4' duff with steps)	1200'	3,600		3,600		
San Francisco Watershed Spur Trail (4' duff)	400'	800				800
Minor Access Trails (2')	1100'	1,100			1,100	
Trail Demolition and Rehabilitation	2500'	2,500		2,500		
Trail Gates	7	5,250		3,750	1,500	
	<b>SUB-TOTAL</b>	<b>83,850</b>	<b>7,600</b>	<b>33,350</b>	<b>41,500</b>	<b>1,400</b>

MISCELLANEOUS FACILITIES/MANAGEMENT PROGRAMS

Item Description	Quantity	Price	Phase 1 (Year 1)	Phase 2 (Years 2-3)	Phase 3 (Years 4-10)	Future Option
Corporation Yard (including security lighting, fencing, alarms)	1	400,000			400,000	
Ranger Residence	1	200,000				200,000
Park View Drive/Hillside Stabilization						
o Grading, Strip and Stock Pile, Excavation, Hauling	15,000 cu. yds.	200,000				200,000
o Planting/Hydromulch	1 acre	8,500				8,500
Revegetation Program						
o Remove Existing Eucalyptus	13 acres	70,000	6,000		64,000	
o Clear and Grade	13 acres	68,000	6,000		62,000	
o Trees (seedlings)	6 acres	600			600	
o Brush/Grassland (seedlings and hydromulch)	7 acres	15,250	2,000		13,250	
Miscellaneous Area Signage		2,500	500	1,000	1,000	
Freeway/City Signage		2,500	2,500			
	<b>SUB-TOTAL</b>	<b>967,350</b>	<b>17,000</b>	<b>1,000</b>	<b>540,850</b>	<b>408,500</b>

Table 6

ULTIMATE ANNUAL STAFFING NEEDS

	Month											
	<u>J</u>	<u>F</u>	<u>M</u>	<u>A</u>	<u>P</u>	<u>J</u>	<u>J</u>	<u>A</u>	<u>S</u>	<u>O</u>	<u>N</u>	<u>D</u>
Ranger/ Part Staff <sup>1</sup>	5	5	6	6/7	7	7	7	7	7	7/6	6	5
Ranger Aids/ Interns <sup>2</sup>					1	1	1	1	1			
Interpretive Center <sup>3</sup>				1/4	1/4	1/4	1/4	1/4	1/4	1/4		

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<sup>1</sup> Prime recreation season is from April 15 through October 15. Many maintenance activities occur in the spring and fall, just before and after the prime seasons. Levels shown may fluctuate on an as-needed basis.

<sup>2</sup> Weekends and holidays--assumes two interns working 1/2 time each.

<sup>3</sup> Weekends and holidays--assumes that one full-time position will be needed to manage Interpretive Center with 50% of that position filled by docents.

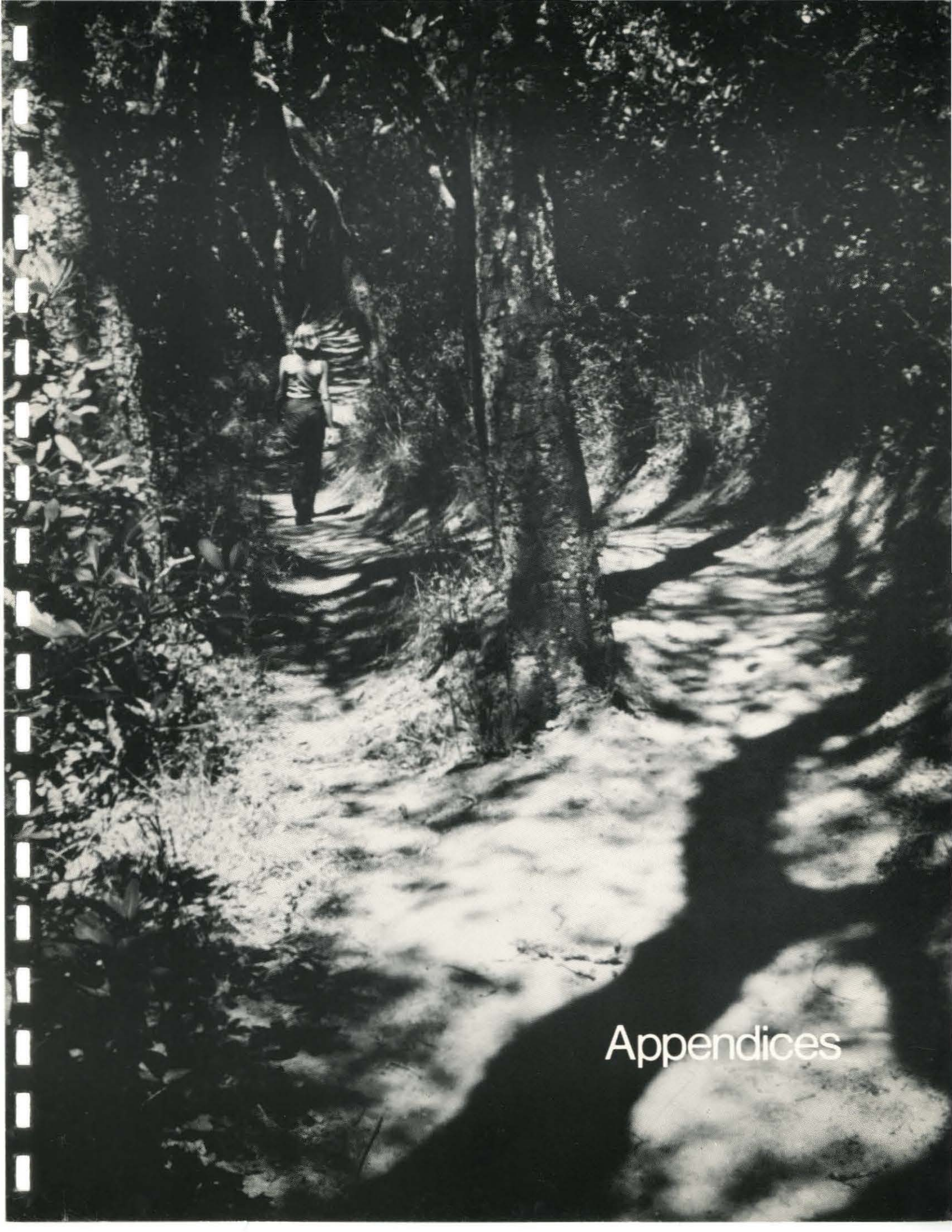
Table 7

ULTIMATE ANNUAL STAFFING COSTS

	<u>Number</u>	<u>Average Annual Salary</u>	<u>Annual Cost</u>
Full Time Ranger Staff	5	30,000*	150,000
Part Time Ranger Staff	1 for 9 mos.	30,000*	22,500
	1 for 7 mos.	30,000*	17,500
Ranger Aids	2 at 1/2 time for <u>5 mos.</u>	<u>8,500</u>	<u>3,600</u>
TOTAL			190,000

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\* Salary and fringe benefits package



Appendices

APPENDIX A

Plant Species of Junipero Serra County Recreation Area  
and  
Commercial Availability of Native Plants

AVAILABILITY OF NATIVE PLANT MATERIALS\*\*

Oak Woodland Species

	Agrostis (Grass)	<u>Agrostis sp.</u>
	Bedstraw	<u>Galium aparine</u>
	California Bee-Plant	<u>Scrophularia californica</u>
C	California Buckeye	<u>Aesculus californica</u>
C	California Laurel	<u>Umbellularia californica</u>
C	California Lilac	<u>Ceanothus sp.</u>
C	California Live Oak	<u>Quercus agrifolia</u>
	California Polypody Fern	<u>Polypodium californicum</u>
	California Strawberry	<u>Fragaria californica</u>
C	California Wild Rose	<u>Rosa californica</u>
	Coastal Wood Fern	<u>Dryopteris arguta</u>
	Common Snowberry	<u>Symphoricarpos albus</u> var. <u>laevigatus</u>
	*English Ivy	<u>Hedera helix</u>
	*German Ivy	<u>Senecio mikanioides</u>
C	Hairy Honeysuckle	<u>Lonicera hispidula</u>
S	Iris	<u>Iris sp.</u>
C	Madrone	<u>Arbutus menziesii</u>
	Miner's Lettuce	<u>Montia perfoliata</u>
	Pacific Blackberry	<u>Rubus ursinus</u>
	Pacific Sanicle	<u>Sanicula crassicaulis</u>
	Poison Oak	<u>Toxicodendron diversiloba</u>
	Rigid Hedge Nettle	<u>Stachys rigida</u> ssp. <u>quercetorum</u>
	Santa Barbara Sedge	<u>Carex barbarae</u>
	Torrey's Melica (Grass)	<u>Melica torreyana</u>
C	Toyon	<u>Heteromeles arbutifolia</u>
	White Globe Lily	<u>Calochortus albus</u>
	Wild Cucumber	<u>Marah fabaceus</u>
	Woolly Paintbrush	<u>Castilleja foliosa</u>
	Yerba Buena	<u>Satureja douglasii</u>

Legend

\* = Introduced species

\*\* = Does not mean that species are immediately available but that nurseries have capacity to supply them given advanced notice.

C = Container Stock

S = Seed

## Grassland Species

### Grasses:

Alkali Rye Grass	<u>Elymus triticoides</u>
*Annual Poa	<u>Poa annua</u>
*Bermuda Grass	<u>Cynodon dactylon</u>
*Big Quaking Grass	<u>Briza maxima</u>
Big Squirreltail	<u>Sitanion jubatum</u>
Branched Alkali Rye Grass	<u>Elymus triticoides</u> var. <u>multiflorus</u>
*Branched Italian Ryegrass	<u>Lolium multiflorum</u> var. <u>ramosum</u>
California Brome	<u>Bromus carinatus</u>
California Hair Grass	<u>Deschampsia caespitosa</u> ssp. <u>holciformis</u>
California Wild Oat Grass	<u>Danthonia californica</u>
*Canary Grass	<u>Phalaris canariensis</u>
*Darnell	<u>Lolium temulentum</u>
*English Ryegrass	<u>L. perenne</u>
*Farmer's Foxtail	<u>Hordeum leporinum</u>
*Harding Grass	<u>Phalaris aquatica</u>
*Hedgehog Dogtail Grass	<u>Cynosurus echinatus</u>
*Italian Ryegrass	<u>Lolium multiflorum</u>
June Grass	<u>Koeleria macrantha</u>
*Little Quaking Grass	<u>Briza minor</u>
Meadow Barley	<u>Hordeum brachyantherum</u>
*Mediterranean Barley	<u>H. geniculatum</u>
Nodding Stipa	<u>Stipa pulchra</u>
*Orchard Grass	<u>Dactylis glomerata</u>
*Pampas Grass	<u>Cortaderia</u> sp.
Pine Bluegrass	<u>Poa scabrella</u>
*Kentucky Bluegrass	<u>Poa pratensis</u>
*Rabbit's Foot Grass	<u>Polypogon monspeliensis</u>
*Rattail Fescue	<u>Festuca myuros</u>
*Red Brome	<u>Bromus rubens</u>
Red Fescue	<u>Festuca rubra</u>
*Ripgut Grass	<u>Bromus diandrus</u>

\* = Introduced species.



Grassland species - grasses, cont....

*Silvery Hair Grass	<u>Aira caryophyllea</u>
*Six-weeks Fescue	<u>Festuca dertonensis</u>
*Slender Wild Oat	<u>Avena barbata</u>
*Soft Chess	<u>Bromus mollis</u>
*Velvet Grass	<u>Holcus lanatus</u>
*Water Bent Grass	<u>Agrostis semiverticillata</u>
Western Rye Grass	<u>Elymus glaucus</u>
Western Six-weeks Fescue	<u>Festuca megalura</u>
*Wild Oat	<u>Avena fatua</u>

\* = Introduced species

Additional Grassland Species:

	*Bellardia	<u>Bellardia trixago</u>
	*Blue Field Madder	<u>Sherardia arvensis</u>
	Bolander's Horkelia	<u>Horkelia bolanseri</u> ssp. <u>parryi</u>
	*Broad-leaved Filaree	<u>Erodium botrys</u>
	Bush Lupine	<u>Lupinus arboreus</u>
	California Acaena	<u>Acaena californica</u>
	California Blackberry	<u>Rubus ursinus</u>
S	California Blue-eyed Grass	<u>Sisyrinchium bellum</u>
	California Buttercup	<u>Ranunculus californica</u>
	California Hedge Nettle	<u>Stachys bullata</u>
	California Maidenhair Fern	<u>Adiantum jordanii</u>
	California Plantain	<u>Plantago erecta</u>
	California Polypody Fern	<u>Polypodium californicum</u>
S	California Poppy	<u>Eschscholzia californica</u>
	Checker Bloom	<u>Sidalcea malviflora</u>
S	Clarkia	<u>Clarkia purpurea</u>
	*Common Chickweed	<u>Stellaria media</u>
	Common Pacific Pea	<u>Lathyrus vestitus</u>
	*Common Plantain	<u>Plantago major</u>
	Common Rush	<u>Juncus patens</u>
	*Common Soliva	<u>Soliva sessilis</u>
	Common Wood Rush	<u>Luzula multiflora</u>
	Common Yarrow	<u>Achillea borealis</u> ssp. <u>californica</u>
	Cotton-batting Plant	<u>Gnaphalium chilense</u>
	Coyote Mint	<u>Monardella villosa</u>
	*Curly Dock	<u>Rumex crispus</u>
	*Cut-leaved Geranium	<u>Geranium dissectum</u>
S	Davy's Bush Lupine	<u>Lupinus arboreus</u> var. <u>eximius</u>
S	Dense-flowered Platycarpus	<u>Lupinus densiflorus</u>
	Dwarf Brodiaea	<u>Brodiaea terrestris</u>
	Dwarf Orthocarpus	<u>Orthocarpus pusillus</u>
	*English Plantain	<u>Plantago lanceolata</u>

\* = Introduced species.

Additional grassland species, cont....

	*Fuller's Teasel	<u>Dipsacus fullonum</u>
	Goldenback Fern	<u>Pityrogramma triangularis</u>
	*Hairy Cat's Ear	<u>Hypochaeris radicata</u>
	Harvest Brodiaea	<u>Brodiaea elegans</u>
	Hill Morning Glory	<u>Convolvulus subacaulis</u>
	Hirsute Grindelia	<u>Grindelia hirsutula</u>
	Horsetail	<u>Equisetum</u> sp.
	*Indian Melilot	<u>Melilotus indicus</u>
S	Iris	<u>Iris</u> sp.
	*Italian Thistle	<u>Carduus pycnocephalus</u>
S	Ithuriel's Spear	<u>Brodiaea laxa</u>
	Meadow Lupine	<u>Lupinus affinis</u>
	*Milk Thistle	<u>Silybum marianum</u>
	*Mouse-ear Chickweed	<u>Cerastium viscosum</u>
	Naked-stemmed Eriogonum	<u>Eriogonum nudum</u>
	*Narrow-leaved Filago	<u>Filago gallica</u>
	Narrow-leaved Mule Ears	<u>Wyethia angustifolia</u>
	Owl's Clover	<u>Orthocarpus densiflora</u>
	*Poison Hemlock	<u>Conium maculatum</u>
	Purple Cudweed	<u>Gnaphalium purpureum</u>
	*Red-stemmed Filaree	<u>Erodium cicutarium</u>
	*Scarlet Pimpernal	<u>Anagallis arvensis</u>
	*Sheep Sorrel	<u>Rumex acetosella</u>
	Slender Tarweed	<u>Madia gracilis</u>
	*Small-flowered Flax	<u>Linum bienne</u>
	*Smooth Cat's Ear	<u>Hypochaeris glabra</u>
	Sneezeweed	<u>Helenium puberulum</u>
	Soap Plant	<u>Chlorogallum pomeridianum</u>
	*Spring Vetch	<u>Vicia sativa</u>
	Summer Lupine	<u>Lupinus formosus</u>
	Thistles	<u>Cirsium</u> spp.
	*Wild Radish	<u>Raphanus sativus</u>
	*Windmill Pink	<u>Silene gallica</u>
S	White Brodiaea	<u>Brodiaea hyacinthe</u>
	*White-stemmed Filaree	<u>Erodium moschatum</u>
	*Woolly Vetch	<u>Vicia villosa</u>
	*Yellow Star Thistle	<u>Centaurea solstitialis</u>

\* = Introduced species.

Coastal Scrub or Soft Chaparral Species

C	Coyote Brush	<u>Baccharis pilularis</u> var. <u>consanguinea</u>
	Coyote Mint	<u>Monardella villosa</u>
	*French Broom	<u>Cytisus monspessulanus</u>
	Naked-stemmed Eriogonum	<u>Eriogonum nudum</u>
S	Ocean Spray	<u>Holodiscus discolor</u>
	Poison Oak	<u>Toxicodendron diversiloba</u>
	*Scotch Broom	<u>Cytisus scoparius</u>
	*Spanish Broom	<u>Spartium junceum</u>
C S	Sticky Monkey Flower	<u>Mimulus aurantiacus</u>

Riparian, Riparian-Woodland Species

	American Brooklime	<u>Veronica americana</u>
	Arroyo Willow	<u>Salix lasiolepis</u>
	Horsetail	<u>Equisetum</u> sp.
	Rigid Hedge Nettle	<u>Stachys rigida</u> ssp. <u>quercetorum</u>
	Santa Barbara Sedge	<u>Carex barbarae</u>
	*Water Cress	<u>Rorippa nasturtium-aquaticum</u>

\* = Introduced species.

## Disturbed Area Species

*Annual Poa	<u>Poa annua</u>
*Bristly Ox Tongue	<u>Picris echioides</u>
*Bull Mallow	<u>Malva nicaeensis</u>
*Bur Clover	<u>Medicago polymorpha</u> var. <u>vulgaris</u>
*Calla Lily	<u>Zantedeschia aethiopica</u>
Common California Aster	<u>Aster chilense</u>
*Common Knotweed	<u>Polygonum aviculare</u>
*Common Soliva	<u>Soliva sessilis</u>
*Common Sow Thistle	<u>Sonchus oleraceus</u>
*Curly Dock	<u>Rumex crispus</u>
*Cut-leaved Plantain	<u>Plantago coronopus</u>
*English Daisy	<u>Bellis perennis</u>
*English Plantain	<u>Plantago lanceolata</u>
*Eucalyptus seedlings	<u>Eucalyptus</u> sp.
*Fiddle Dock	<u>Rumex pulcher</u>
*Forked Nightshade	<u>Solanum furcatum</u>
*Italian Ryegrass	<u>Lolium multiflorum</u>
*Italian Thistle	<u>Carduus pycnocephalus</u>
*Lesser Wartcress	<u>Cornopus didymus</u>
*Milk Thistle	<u>Silybum marianum</u>
Pineapple Weed	<u>Matricaria matricarioides</u>
*Pine seedlings	<u>Pinus</u> sp.
*Poison Hemlock	<u>Conium maculatum</u>
*Prickly Sow Thistle	<u>Sonchus asper</u>
*Red-stemmed Filaree	<u>Erodium cicutarium</u>
*Sheep Sorrel	<u>Rumex acetosella</u>
*Spurry	<u>Spergula arvensis</u>
*White-stemmed Filaree	<u>Erodium moschatum</u>

\* = Introduced species.

Trees Planted in Disturbed Area

	*Birch	<u>Betula sp.</u>
	*Black Acacia	<u>Acacia melanoxylon</u>
C	*Coast Redwood	<u>Sequoia sempervirens</u>
	*Eucalyptus	<u>Eucalyptus spp.</u>
	*Green Wattle	<u>Acacia decurrens</u>
C	*Incense-Cedar	<u>Calocedrus decurrens</u>
C	*Monterey Cypress	<u>Cupressus macrocarpa</u>
C	*Monterey Pine	<u>Pinus radiata</u>
	*Weeping Willow	<u>Salix babylonica</u>
	*White Fir	<u>Abies concolor</u>

\* = Introduced species.

Species of Plants Not Observed During This Study, But Recorded  
In Ranger's List of Plants In Junipero Serra Park:

Trees:

	Douglas Fir	<u>Pseudotsuga menziesii</u>
	Hazel	<u>Corylus rostrata</u>
C	Valley Oak	<u>Quercus lobata</u>

Wildflowers & Shrubs:

C	Thimbleberry	<u>Rubus parviflorus</u>
S	Blue & White Lupine	<u>Lupinus bicolor</u>
C	Coffeeberry	<u>Rhamnus californica</u>
C	Chaparral Whitehorn	<u>Ceanothus leucodermis</u>
C	Manzanita	<u>Arctostaphylos manzanita</u>
S	Yellow Monkey Flower	<u>Mimulus guttatus</u>
	Brownie Thistle	<u>Cirsium quercetorum</u>
	Cobweb Thistle	<u>Cirsium occidentale</u>
	Gooseberry	<u>Grossularia sp.</u>
	Hound's Tongue	<u>Cynoglossum grande</u>
	Malva Rose	<u>Lavatera assurgentiflora</u>
	Field Bindweed	<u>Convolvulus arvensis</u>
	Johnny-Jump-Up	<u>Viola pedunculata</u>
	Sun Cups	<u>Camissonia ovata</u>
	False Tidy-tips	<u>Leptosyne douglasii</u>
	Chinese Houses	<u>Collinsia heterophylla</u>
S	Owl Clover	<u>Orthocarpus purpurascens</u>

Ferns:

	Bracken	<u>Pteridium aquilinum var. pubescens</u>
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References:

- Munz, Philip A. 1973. A California Flora and Supplement.  
(In collaboration with David D. Keck.) University of  
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- Thomas, John H. 1961. Flora of the Santa Cruz Mountains of  
California. Stanford University Press, Stanford, Calif.













APPENDIX B

Environmental Setting Map Package



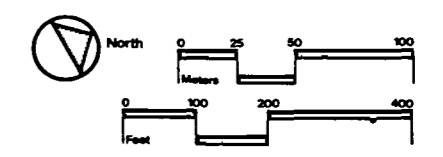


# EXISTING FACILITIES

-  Park Boundary
-  Public Road
-  Service Road
-  Nature Trail
-  Foot Trails (not maintained)
-  Public Parking
-  Picnic Areas
-  Structures
-  Recreation Facilities
-  Erosion Control Facilities
-  Electric Lines
-  Telephone Lines
-  San Bruno Water Main
-  Water Pipes and Irrigation

# JUNIPERO SERRA COUNTY RECREATION AREA

Department of Parks and Recreation  
County of San Mateo



EDAWinc

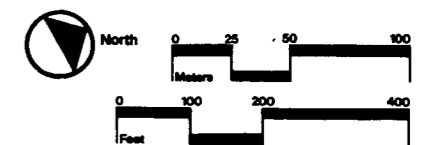


# VEGETATION

- OW Oak Woodland
- CS Coastal Scrub
- G Grassland
- R Riparian
- D Disturbed

# JUNIPERO SERRA COUNTY RECREATION AREA

Department of Parks  
and Recreation  
County of San Mateo



EDAW/Inc

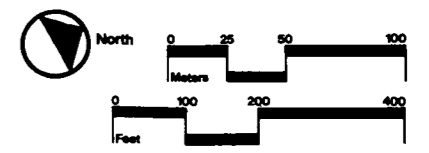


# SLOPES

- 1** 0 - 10%
- 2** 10 - 20%
- 3** 20 - 40%
- 4** 40% and above

# JUNIPERO SERRA COUNTY RECREATION AREA

Department of Parks  
and Recreation  
County of San Mateo



EDAWinc

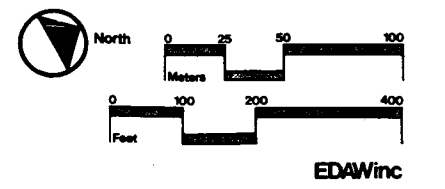


# MICROCLIMATE

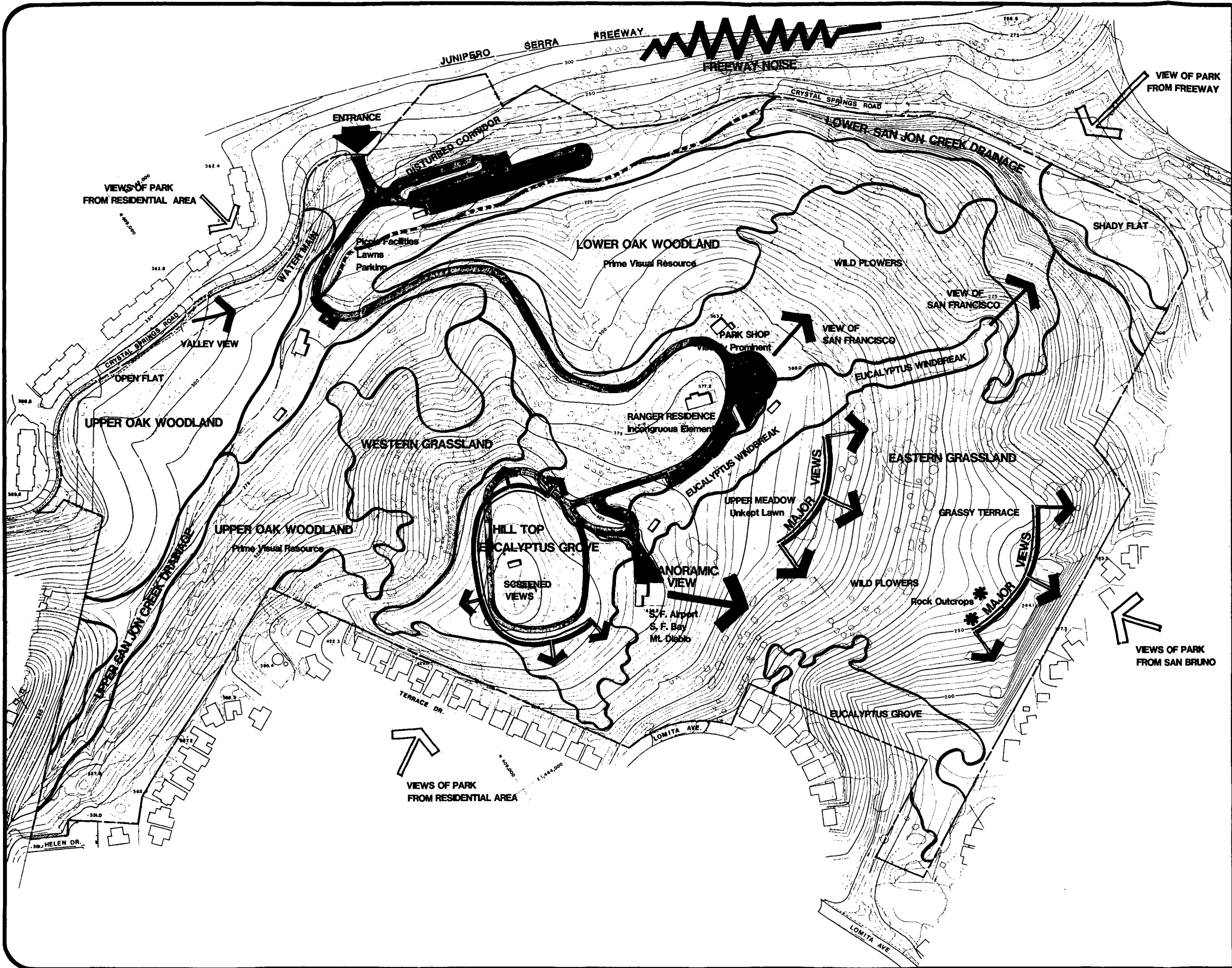
- 1** Sunny and Protected
- 2** Sunny and Windy
- 3** Sunny and Very Windy
- 4** Shady and Protected
- 5** Shady and Windy
- 6** Shady and Very Windy

# JUNIPERO SERRA COUNTY RECREATION AREA

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and Recreation  
County of San Mateo



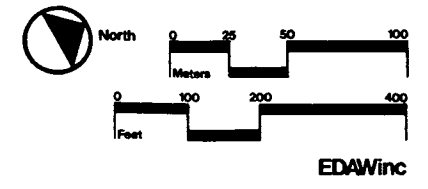
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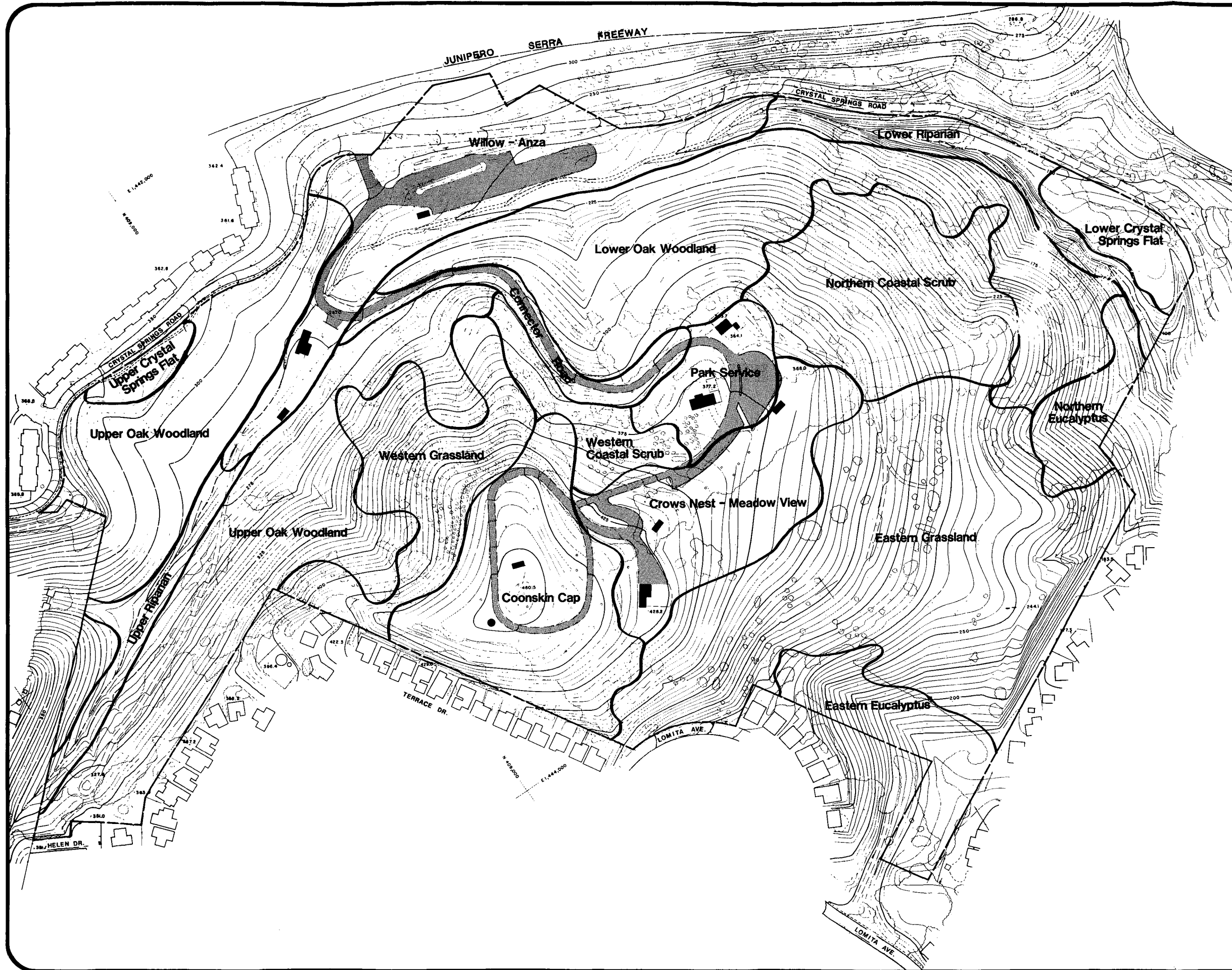
# VISUAL / AESTHETICS

## JUNIPERO SERRA COUNTY RECREATION AREA

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County of San Mateo



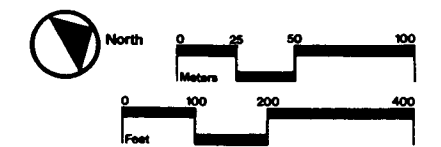
EDAW/Inc



# LANDSCAPE UNITS

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