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Pescadero
Creek
Park

Master
Plan



**Pescadero Creek Park
Master Plan**

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**Prepared for the
County of San Mateo,
California**

**by
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Sausalito, California**

July 1975

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I. Prologue

San Mateo County can be considered one of the most sophisticated counties in the United States in providing parks and open space for its citizens. Early in the 1960's, the National Outdoor Recreation Resources Review Commission completed its studies and published a landmark series of reports. These reports were the first comprehensive survey of America's outdoor recreation resources and the first to recognize that "...the conventional approach to providing outdoor recreation is not adequate for present needs, and it will certainly not be for the future. ...demand is large and growing. ...the kind of recreation people want most of all is relatively simple. ...people want things where they live. ...we are running out of land." At about the same time, the San Mateo County Board of Supervisors had invited a group of County citizens, the Regional Planning Committee, to take an in-depth look at the parks and open space needs of the future. The result, after two years and many meetings, was truly a citizens' plan for parks and open space, developed in response to the call for nation-wide planning for outdoor recreation.

II. Introduction

The growth in park and recreation demand is ascending at a geometric rate, estimated as increasing four times faster than the population. Fifty percent of the nation's 213 million people are under 25 years and represent, with the increasing number of elderly persons, the most avid recreationalists.

Discretionary income is a highly important factor affecting recreation. Participation in recreational activities which require expenditures for unique gear is growing, as is the engagement in simpler recreational pursuits in areas of great natural beauty far removed from urban places. Projections indicate that due to the continuing rise in family income, the money available for all leisure activities will increase markedly. Mobility has been increasing rapidly for the past several decades.

However, the recent energy crisis imposed severe limitations on travel to parks and recreation areas. It is still not known what impact the present fuel situation and other pervasive economic uncertainties will have on the mobility of the American population. Residents of the San Mateo County area will be subjected to these limitations perhaps as much as any population concentration in the State of California or in the country. Early indications estimate a 15 percent or higher overall

reduction in travel to distant recreation areas, if fuel becomes scarce again. This reduction in mobility, coupled with shorter work weeks, greater vacation periods, and extended weekends will, undoubtedly, lead to an increased utilization of already heavily used local and regional parks.

In light of the above, the San Mateo County Citizens' Plan entitled "Charter for Parks" was an action of great foresight. In response to this Charter the San Mateo County Parks and Recreation Department, in addition to other acquisitions throughout the county, purchased the 5,700 acre Pescadero Creek Park lands. The following master plan is intended to take this resource and help make it available for use by the citizens of San Mateo County in a sensitive and responsive manner.

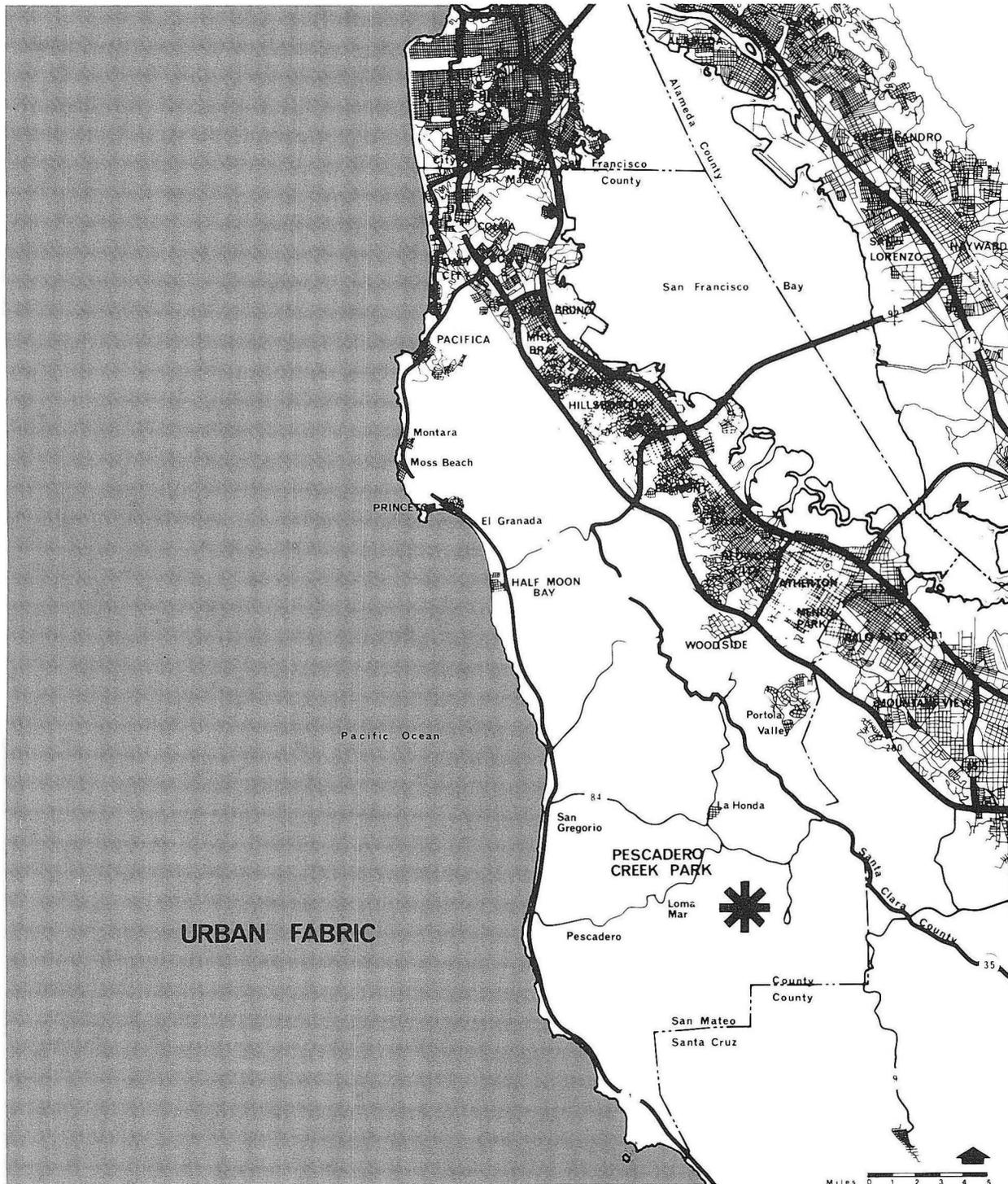
III. The Park General

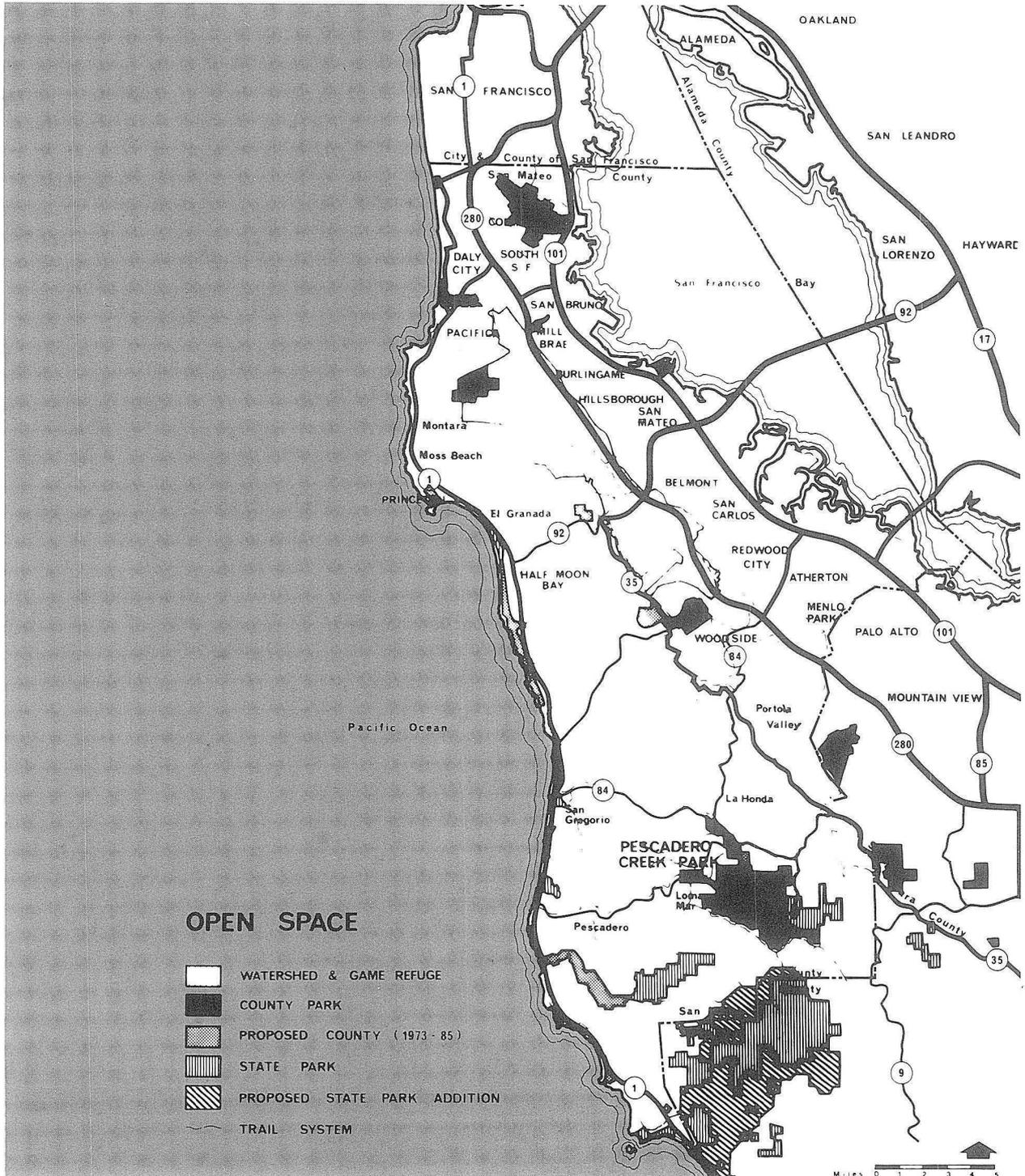
Pescadero Creek Park is located in the southern part of San Mateo County and has difficult access at best. To the west of Pescadero Creek Park is Memorial County Park, the oldest established county park; to the east is Portola State Park.

As can be seen on the accompanying open space map for the county, Pescadero Creek Park is the largest county park, 5,700 acres of redwood lands with a vast array of other natural and cultural resources. The study area is but a segment of the total mosaic of parks and other public lands administered by all levels of government serving the local citizenry. This map defines patterns, existing and proposed, of recreation lands which tie the urbanized eastern corridor to the Pacific Ocean.

Vehicular access to Pescadero is presently available from the east and west via Alpine and Pescadero Roads, respectively. Alpine Road is a narrow two-lane road, limited in its capacity to accommodate great numbers of private vehicles. Pescadero Road, however, provides better access from the west. These two highways, in turn, connect to relatively high-speed interstate and state highways.

The urban complex in the eastern portion of the county, astride U.S. Highway 101 and Interstate 280, is identified on the time distance map as being within a one hour time zone of Pescadero Creek Park. Population within this zone was estimated recently by ABAG as being about 2¼ million persons. The two hour time zone, embracing communities as far north as Novato and a large portion of the East Bay area, contains approximately 4½ million people.

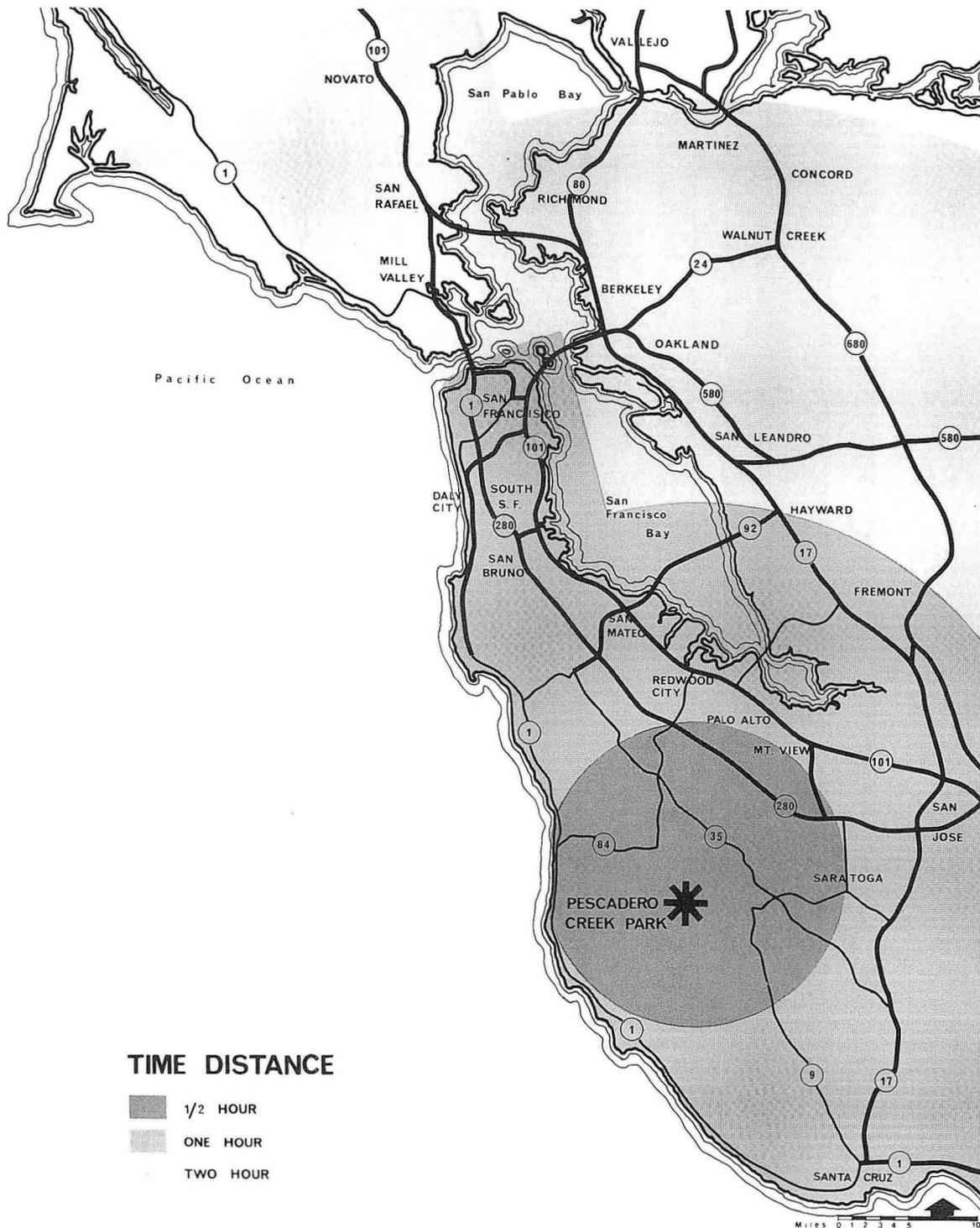




OPEN SPACE

-  WATERSHED & GAME REFUGE
-  COUNTY PARK
-  PROPOSED COUNTY (1973 - 85)
-  STATE PARK
-  PROPOSED STATE PARK ADDITION
-  TRAIL SYSTEM





TIME DISTANCE

- 1/2 HOUR
- ONE HOUR
- TWO HOUR

Miles 0 1 2 3 4 5 6

Existing facilities at Memorial County Park receive approximately 200,000 user days per year. Portola State Park, which includes similar park activities such as camping, picnicking, nature walks, trails, and sightseeing, is experiencing approximately 100,000 user days per year.

The accompanying land ownership map (Fig. 1) shows how public, quasi-public and private lands surround Pescadero Creek Park. Planning for this park must take into consideration the uses of these surrounding lands.

A plan must also consider the existing administrative and visitor services available within Memorial County Park, Pescadero Creek Park and Portola State Park, so that opportunities for creating a contiguous and viable planning unit are not overlooked. For this reason the following resource investigations and plans deal in large part with these three park areas and potential linkages to other nearby areas, such as Big Basin State Park and Sam McDonald County Park. The results define the need for cooperative efforts with other public and quasi-public agencies in resource management and park management.

Purpose, Objectives and Methodology

Pescadero Creek Park is a unique resource of water and redwoods. The land is fragile and beautiful in a timeless sense. Natural resources, as opposed to cultural and social resources, retain this quality until the forces of nature modify them; evolutionary stages, over thousands of years, may create an entirely new ecosystem. The San Mateo County Board of Supervisors, the San Mateo County Parks and Recreation Commission, and groups and individuals in support of the Pescadero Creek Park, are aware of this unique resource, but at the same time, are aware of the need for recreational facilities for citizens. Thus, the Board of Supervisors requested that the master plan for Pescadero Creek Park be developed in a sensitive manner, with respect for the value of the resource but, at the same time, providing the greatest and most diverse recreational opportunities possible.

To achieve this purpose, planning for the management and development of the Pescadero Creek Park is guided by the following:

- A. Insure the conservation of superlative old-growth redwood groves and Pescadero Creek, which possess the aesthetic quality for which the park was established.
- B. Protect the park resources from incompatible outside activities.
- C. Perpetuate the mosaic of ecosystems in the park, including the forests, streams, soils, and their associated plant and animal life.

D. Maintain the wild character of the extensive area to the south of Pescadero Creek, extending to Butano Ridge.

E. Establish concern and sensitivity for the environment as the norm of human conduct in the park. This will help assure healthy environmental conditions for present and future generations.

Objectives to serve the visitor should also be established and are recommended as follows:

A. Provide visitors the widest possible range of opportunities to experience the many moods and aspects of the redwood forests, the streams, and the open grasslands as complex communities of living things.

B. Offer a variety of uses to meet human needs for outdoor recreation, including camping, picnicking and other more active day use pursuits, as well as the opportunity for solitude, understanding of the environment, and communion with nature.

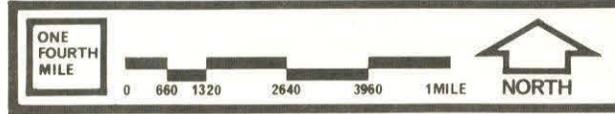
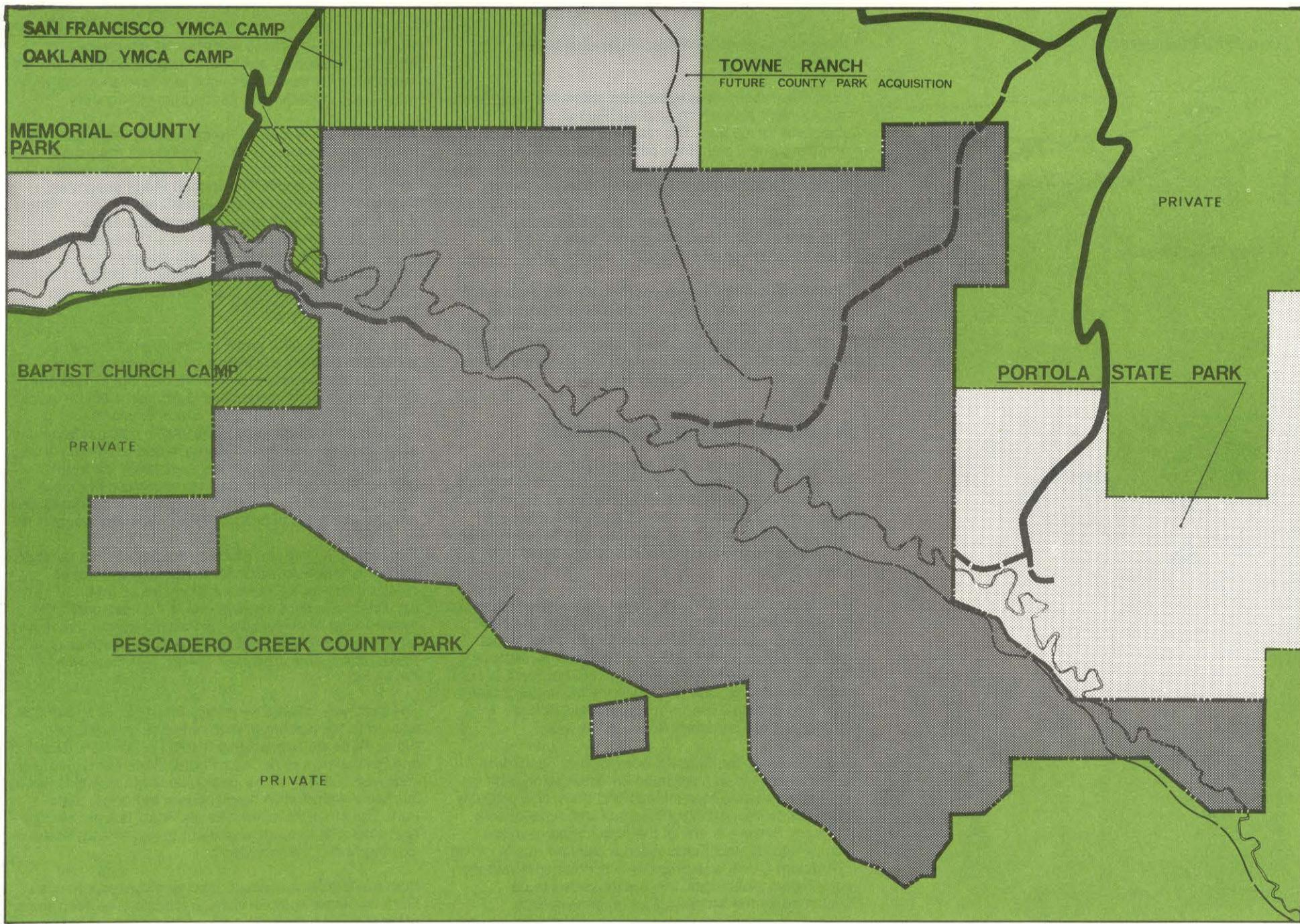
C. Explain the significance of park resources in such a way that the visitor can feel a part of the environment and experience a new awareness, appreciation and concern for it.

D. Provide visitors with sufficient background information on Pescadero Creek Park to plan an enjoyable park visit.

E. Encourage the development of visitor services within the park to meet visitor needs and direct the most proper use of the park area; seek appropriate means to encourage the use of park resources by visiting scientists and students and initiate an exchange of information with them on the resources of the park.

F. Develop cooperation between the San Mateo Park and Recreation Department, the adjacent coastal region, and the State Department of Parks and Recreation as a necessity for the successful operation of Pescadero Creek Park as a benefit to the county and the state.

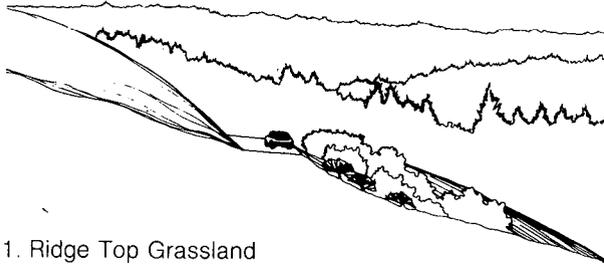
Planning for Pescadero Creek Park consisted of four interrelated steps that afforded a basis for developing comprehensive guidelines to the management, design, use, and perpetuation of the area. The process began with the development of a *resource analysis*, an in-depth examination of the resources and their sensitivities, both cultural and natural, within the study area. Upon defining sensitive areas where the impact of man could readily alter important land and water features (see "A Look at Resources"), *conceptual alternatives* were generated, as a second step, which showed varying



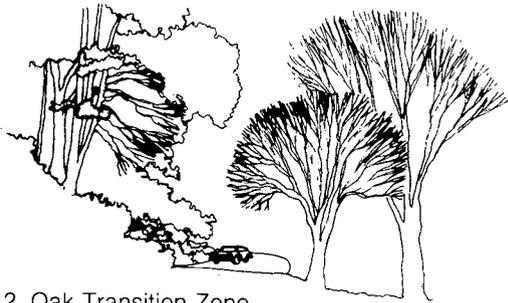
PESCADERO CREEK PARK
 SAN MATEO COUNTY, CALIFORNIA

LAND OWNERSHIP

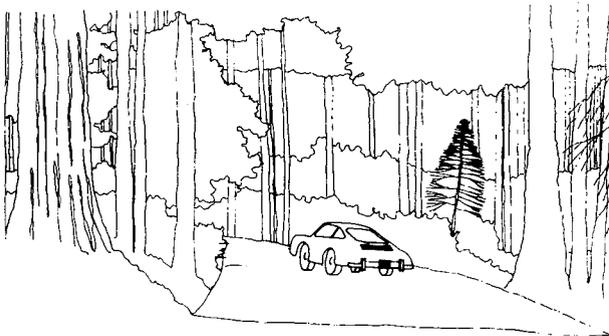
Entry Road Experience



1. Ridge Top Grassland



2. Oak Transition Zone



3. Valley Redwood Forest

intensities of land use for recreational activities and facilities.

From these alternatives emerged a recommended general development plan which best satisfied all of the objectives for the park. The resource inventory, coupled with the general plan, then provided all of the necessary information to develop the third step—a *Draft Environmental Impact Report*. The fourth step was the development of a *Resource Management Plan* which set forth guidelines for the management of the resources of Pescadero Creek Park so that future generations will have the same opportunity to use and enjoy this diverse area.

The following maps and supportive text will describe in more detail the natural and cultural resource considerations which provided a basis for the development of a park master plan. Additionally, the *Draft Environmental Impact Report* contains complete descriptions and analyses of the resources within the study area.

A Look At Cultural Resources

The cultural resources of an area include such items as the visual and physical characteristics of the landscape and man-made elements such as buildings, access, roads, trails, archeological and historic sites, and adjacent land uses. As noted earlier, the study area discussed below will include Portola State Park, Pescadero Creek Park, and Memorial Park.

Pescadero Creek Park is located in the southern part of the county between Memorial Park and Portola State Park, astride beautiful Pescadero Creek. Major visual features are presented in Fig. 2. The park is relatively isolated in this undeveloped part of the county; it is not readily accessible. The only public vehicular accesses presently available are from Alpine Road on the northeast and Pescadero Road on the west.

"Pescadero" is the Spanish word for fish. Pescadero Creek is reputed to have been an outstanding fishing stream, abounding in steelhead and trout. This probably accounts for the naming of the creek and, subsequently, the town. Since it is one of the major streams in the county and no doubt possessed a plentiful supply of fish, Pescadero Creek was probably a popular spot with the early Indian inhabitants; this theory seems to be supported by the archeological reconnaissance.

In the middle of the nineteenth century the search for redwood logs brought the first sawmill to the area. The mill was located about four miles upstream from the town of Pescadero (see Fig. 3). Logging has continued intermit-

tently somewhere on the stream or its tributaries ever since. Inaccessibility and sparse population, however, are responsible for the preservation of a few remaining virgin groves and considerable second growth conifers.

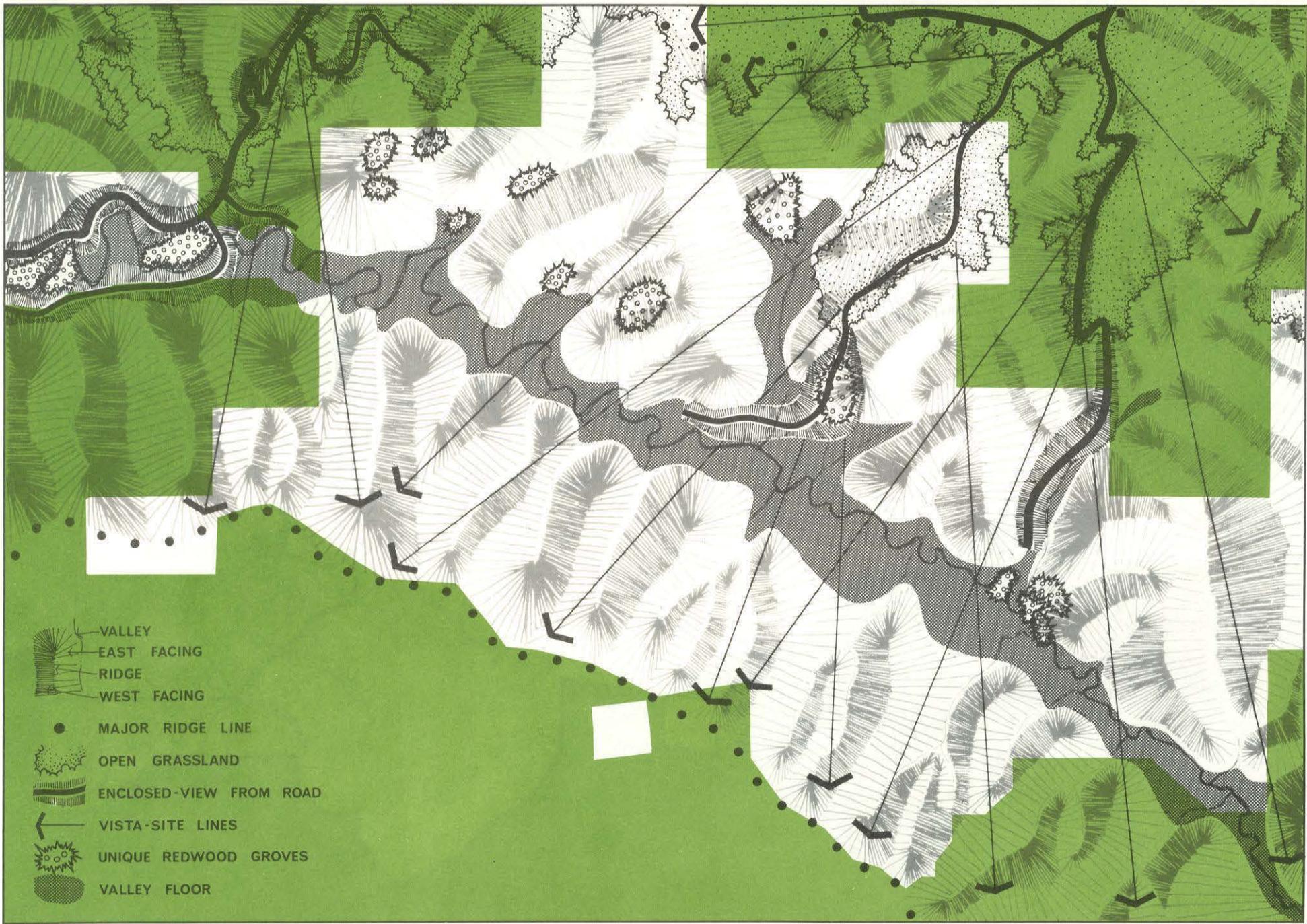
Pescadero Creek Park is essentially the upper canyon of Pescadero Creek (see Fig. 4). The creek meanders through a relatively steep-sided canyon, varying from 20 to 40 feet in depth. The Butano Ridge separates Pescadero Creek from the Butano Creek drainage. This is a high, fairly straight ridge running northwest to southeast in an almost parallel line with Pescadero Creek. Its northernmost slope falls steeply down to the creekbed and is laced with a number of small but deep gullies running generally in a northerly direction into Pescadero Creek.

The north side of the creek is characterized by a somewhat different physiography with fewer steep slopes and three rather prominent drainages, Tarwater Creek, Parke Gulch and Jones Gulch, all of which run into Pescadero Creek. Tree cover is predominantly redwood forest, with mixed Douglas fir, oak, madrone and associated species. All of the area has been cut over at one time or another, except for the specifically designated groves which were set aside for preservation purposes. These groves are scattered throughout the park area and are fine examples of old growth redwood and Douglas fir.

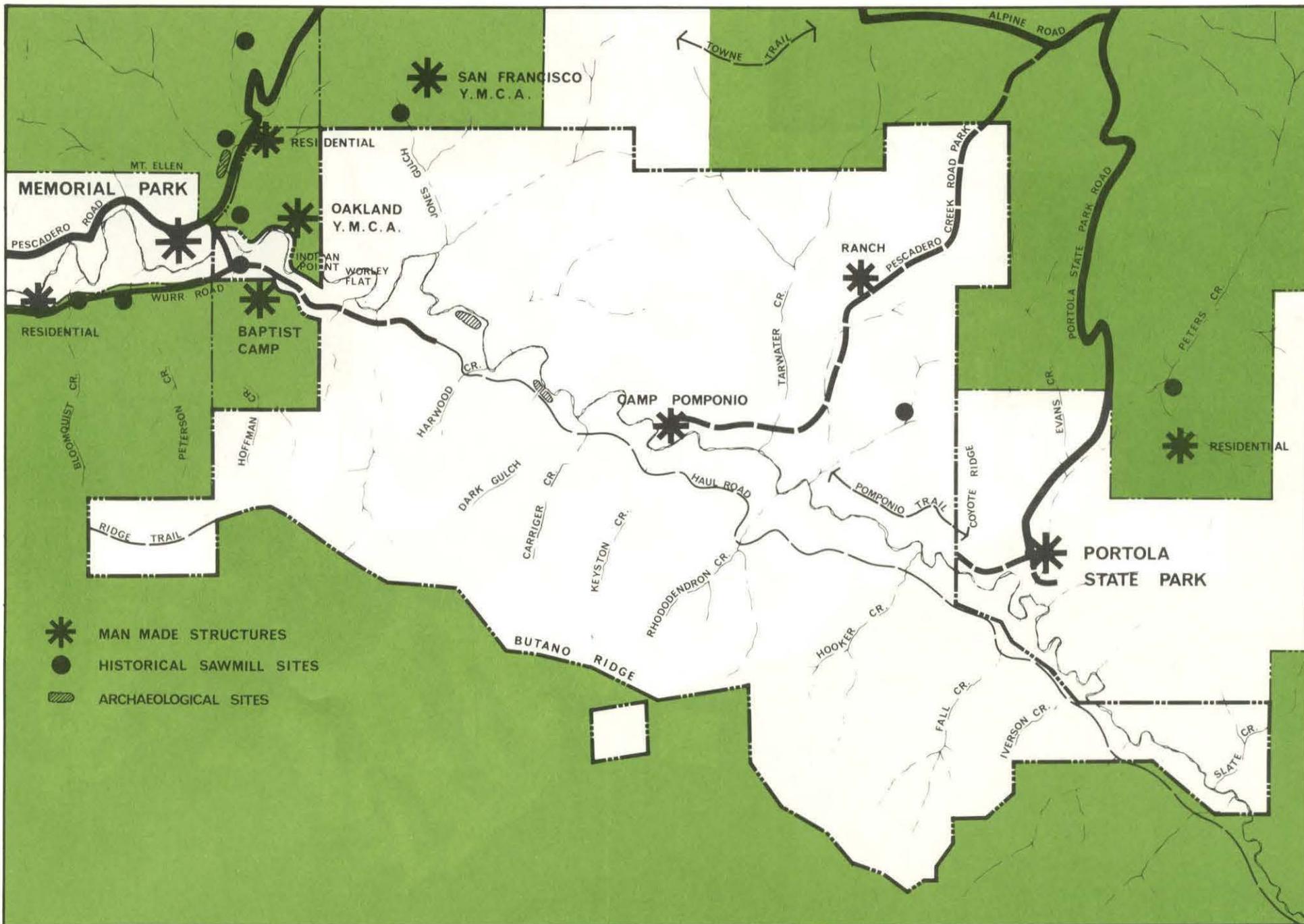
The recent logging operation by the Santa Cruz Lumber Company made provision for the preservation of all redwoods below 24 inches in diameter so that significant numbers of redwoods in that category still remain. Most of these occur on flats or terraces above and along the creek and at the intersections of Jones Gulch, Parke Gulch and Tarwater Creek with Pescadero Creek.

The summary cultural sensitivity map (Fig. 5) shows that access to the eastern portion of the study area is off Alpine Road via two existing roads, Portola Park Road and Pescadero Creek Road. Portola State Park Road is an improved highway of low design speed from Alpine Road into the administrative headquarters at Portola State Park. The other, Pescadero Creek Road, is a narrow, one-lane road with tortuous alignment to its terminus at the existing Sheriff's Honor Camp.

Both roads offer a series of diverse visual experiences. From the upper portions of these roads can be seen some of the most beautiful rolling grasslands along the coast of California. Views are distant and capture the spectacle of the Pacific Ocean to the west. The total visual experience of moving through these rich, pastoral hillsides, past grazing cattle and with distant vistas of the ocean and



-  VALLEY
-  EAST FACING
-  RIDGE
-  WEST FACING
-  MAJOR RIDGE LINE
-  OPEN GRASSLAND
-  ENCLOSED-VIEW FROM ROAD
-  VISTA-SITE LINES
-  UNIQUE REDWOOD GROVES
-  VALLEY FLOOR



PESCADERO CREEK PARK
SAN MATEO COUNTY, CALIFORNIA

SOCIAL - HISTORIC SENSITIVITY



ONE
FOURTH
MILE

0 660 1320 2640 3960 1MILE



PESCADERO CREEK PARK
SAN MATEO COUNTY, CALIFORNIA

**ORIENTATION &
LANDMASSING**

4

the bay is uplifting. As visitors travel on these access roads into the study area, the forest edges encroach until finally an enclosed vegetative canopy dominates the visual scene. Immediately the experience becomes more secluded and more internal. Arriving at the valley floor the creek environment dominates. Moods have changed; the temperature is cooler. Sunlight, distant vistas and a warm, perhaps nostalgic, pastoral scene have been replaced by the lush cool towering redwood forest and the verdant environment of the creek.

Portola Area Use

In Portola State Park there are opportunities for overnight auto camping, as well as day use picnicking and hiking. At present 60 campsites and 106 picnic sites are provided for visitors. This park area has its own administrative headquarters and maintenance area. Use areas are clustered around the administrative headquarters site and provide a nucleus for hiking and day use within the Portola State Park area. Sewerage and other utilities are all handled on-site, off of the existing entrance road.

Pescadero Area Use

Use in Pescadero Creek Park is embryonic and is limited at present to hiking and self-interpretation. Presently there exists along the Pescadero Creek Road, the old McKee ranch, now abandoned and in disrepair. This ranch, including several outbuildings along the higher grassland portions of the area, has great visual value, and is in contrast to the groves of old growth redwoods and Pescadero Creek.

The terminus of Pescadero Road within the park is the site of the old Boy Scout Camp Pomponio, now being used as a Sheriff's Honor Camp. A series of prefabricated metal buildings occupy the area and all are within walking distance of one another.

A historic mill site exists on Tarwater creek where three men, Moore, Fisher, and Troupe, were engaged in sawmilling railroad ties. This site has interpretive possibilities. The summary cultural-sensitivity map (Fig. 5) indicates where distant vistas occur and also identifies the points along the entrances into the study area where the vegetative canopy changes and envelopes the land. The map shows the valley floor in a darker tone on both sides of the creek, indicating where the floor broadens out and where it narrows.

Memorial Area Use

Memorial Park, the oldest in the county system, presently provides, as does Portola State Park, opportunities for overnight camping, day use picnicking, and interpretation of the redwoods located within its boundaries. There are 140 camp sites existing, including four group camp sites as well as individual sites, and 174 family picnic sites. All of these are associated with the Memorial Interpretive Center which provides interpretation for those wishing a deeper understanding of the redwoods and their associated ecosystem. There are also scattered structures within the existing Memorial Park area and in the corridor between Memorial Park and Pescadero Creek Park. These can be seen on the schematic plans presented later in this master plan.

Topographically the Memorial area is gentle and provides some access to Pescadero Creek. In particular, the topography has made Memorial Park one of the more popular areas in the county park system and evidence of heavy use can be seen throughout the area. As a result of this use and the acquisition of Pescadero Creek Park, visitor facilities here should be reevaluated.

An archaeological reconnaissance of portions of Pescadero Park was conducted in an effort to locate any prehistoric sites which may be impacted as a result of developments proposed in Pescadero Creek Park.

Two archaeological resource areas were identified as a result of this reconnaissance. One area is an apparent habitation site located along the south side of Pescadero Creek and to the west of the Parke Gulch area. This site is approximately 50 x 50 meters in area. The second archaeological resource area relates to the discovery of an ambiguous obsidian flake, possibly from an arrowhead, on the south side of the creek.

Existing Utilities

Utilities within the complex, including Pescadero Park, Memorial Park and Portola State Park, are generally in good condition and serve present use levels adequately. Utilities will necessarily be expanded to serve planned higher use levels, but this should be done with minimum environmental impact.

Sewerage

Three sewage treatment plants exist in the study area, with varying degrees of efficiency.

Sewage at Memorial Park receives treatment by twin



15,000 gallons per day (gpd) capacity tanks located side-by-side, which provide extended aeration, secondary treatment. Effluent is pumped across Pescadero Road and up the hill to a combination leaching and evaporation pond. When effluent production exceeds the capacity of this pond the effluent is chlorinated and sprayed on the ground in an adjacent area. Also, six comfort stations are served by individual septic tanks.

The Sheriff's Honor Camp is served by 15,000 gpd, extended aeration, secondary treatment plant which discharges to a spray field. There have been problems with the operation of the spray field. Effluent absorption breakdowns occur during wet weather due to the inability of the ground to absorb the spray effluent when in a saturated condition.

Portola State Park has a 100,000 gpd capacity secondary treatment plant, and effluent from this plant is disposed of in a spray field. One-half of this field at a time is used, affording the other half a chance to dry out between periods of use. Due to the favorable characteristics of this disposal site, and low usage, the park has never had a problem with the high water table affecting its disposal capacity.

The secondary treatment presently given sewage effluents in the park complex is sufficient to meet Water Pollution Control Board standards. The problems encountered with high water tables limiting disposal to the ground have been primarily associated with the Honor Camp system. This system, with a high average peak flow year-round, presents a more difficult disposal problem than the parks' high summertime peaks which occur when the ground is nearly dry.

Water Systems

Critical to the development of Pescadero Creek Park is the evolution of a water system and a strategy that will insure adequate water to serve the projected peak use with minimum impact. At present, Memorial Park and Portola State Park receive water through appropriated water rights on the Pescadero Creek watershed. A spring in the Carriger Creek watershed serves the Sheriff's Honor Camp.

California state law controls the diversion of naturally flowing water to protect the rights of other users in watersheds; therefore, each use, such as the park, must apply to the State Water Resources Control Board for equitable water allocations. Water rights, therefore, are granted by the state, and are subject to its review. Table 1 summarizes these rights as they currently pertain to Pescadero Creek. This summary indicates the withdrawals from Pescadero Creek presently serving Memorial

Park and Portola Park's diversion on Peters Creek.

Of course, the exercising of water rights is subject to the availability of water in Pescadero Creek relative to supply demands. Table 2, which shows the historical mean monthly discharge of Pescadero Creek, indicates that during August and September there is usually less flow available than that already granted to the water rights holders.

As to water storage, Memorial Park has one 547,000 gallon water storage tank adjacent to Pescadero Creek. The Honor Camp has a 90,000 gallon capacity in several small storage tanks. Portola State Park has 190,000 gallons of storage adjacent to Peters Creek in four locations.

Solid Wastes

There is now no facility to receive wet, solid wastes in coastside San Mateo County. While Memorial Park hauls its refuse to the Pescadero dump, all refuse from Portola Park is hauled to the county dump on Marsh Road in Menlo Park. In the interest of efficiency, Portola Park has a 30 cubic yard trash box and a compactor with an 11 to 1 compaction ratio. This allows the collection of about 330 cubic yards of garbage prior to transporting it to Marsh Road. The Sheriff's Honor Camp hauls dry garbage to the Pescadero dump and buries wet refuse on-site.

All these measures are either economically or environmentally unsound. The county plans to develop an acceptable land fill facility for both wet and dry refuse near the town of Pescadero, which is considered a more desirable solid waste disposal solution.

A Look at Natural Resources

The accompanying graphics presenting the natural resource data define the parameters for sensitivity so that an ultimate park plan can be as responsive to the environment as possible. The maps define areas, qualitatively, of highest (darkest) to lowest (lightest) resource sensitivity. The resultant pattern indicates areas where development can take place which will do the least harm to the natural environment. A composite of these sensitivities, coupled with the cultural sensitivities, results in a logical and relevant framework for planning the use and perpetuation of Pescadero Creek Park and its resources.

The following are short descriptions of each of the resource maps and are meant to be highlights. Details can be found in the Environmental Impact Statement.

**Table 1 - Appropriated Water Rights
Pescadero Creek Watershed**

Permittee	Sources	Amount, Cfs
Portola State Park		
Patricia Gray	Peters Creek	0.028
Patricia Gray	Unnamed Stream	0.03
	2 Unnamed Streams	0.03
County of San Mateo		
Skyline Ranch Incorporated	Pescadero Creek	0.5
Skyline Ranch Incorporated	Unnamed Stream	0.061
J G, Pietro & Eva Nunziati	Unnamed Stream	0.041
J G, Pietro & Eva Nunziati	Pescadero Creek From	1.6
J G, Pietro & Eva Nunziati	Pescadero Creek To	1.6
J G, Pietro & Eva Nunziati	Pescadero Creek	0.035
County of San Mateo		
Raymond W Alves & Joseph Capps	Pescadero Creek	0.011
Long Ridge Ranch Incorporated	Unnamed Stream	0.068
San Francisco Y M C A	Peters Creek	0.014
San Francisco Y M C A	McCormick Creek	0.021
San Francisco Y M C A	Unnamed Stream	0.007
San Francisco Y M C A	Jones Gulch	0.014
San Francisco Y M C A	Jones Gulch	0.021
American Baptist Churches of the West	Hoffman Creek	0.007
American Baptist Churches of the West	Unnamed Stream	0.007
American Baptist Churches of the West	Unnamed Stream	0.05
	Total	4.145 cfs

From State of California, Water Resources Control Board Summary, January 15, 1974

**Table 2
Pescadero Creek Flows and Water Rights**

Month	Mean Monthly Discharge cfs. (1)	Total Granted Water Rights cfs. (2)	Deficits, cfs.
January	120	4.145	
February	100	4.145	
March	75	4.145	
April	65	4.145	
May	20	4.145	
June	10	4.145	
July	5	4.145	
August	3	4.145	(1.145)
September	2	4.145	(2.145)
October	10	4.145	
November	10	4.145	
December	90	4.145	

(1) Pescadero Creek Near Pescadero, California, 1951- 1968, from U.S. Department of the Interior.

(2) See Table 1.

Natural Resource Data

A. Soils and Geological Sensitivity-Figures 6 and 7 identify the topography of the area, indicating elevation and degree of slope, respectively. The sensitivities map (Fig. 8) has been constructed to represent areas in which development on designated soil and geologic materials would be inadvisable, either because site location would be difficult, costly, and/or dangerous, or would create adverse environmental impacts which could not be mitigated. Included in the determination of high, medium, and low sensitivities are such factors as the geologic hazard of landslides, limitations for site location on shallow soils, and those sensitive soils which are subject to erosion and compaction.

For general planning purposes, the map suggests areas to be considered as well as avoided in locating facilities. In some instances it serves to locate areas in which construction activities would not be prohibited, but would require special precautionary measures to avoid undesirable affects. As an example, some geologic and soil constraints, including landslide hazards, are located in the southern portion of the study area and are identified as being of critical sensitivity. Ultimate plans indicating development in these areas will require specific design and engineering solutions in site planning phases.

B. Hydrology-The hydrology map of the area (Fig. 9) shows the natural drainage areas and streams. To the greatest extent possible, entire watersheds ought to be examined, since events such as changes in land use, which occur in one part of the watershed, will have an effect on downstream portions of the same watershed. Of great concern here is the maintenance of high water quality standards in Pescadero Creek so that domestic uses downstream will not suffer with the development and use of the park area. High sensitivities can include such factors as high water tables, groundwater recharge areas, stream channels, flood plains, and riparian zones. Alterations or impacts in these areas may affect water quality and/or channel geology (cross-sectional shape). Constricting the flow, such as in the approaches to a bridge, may increase water velocities resulting in rapid downcutting of the stream channel. This will alter the suspended sediment concentrations of the stream, resulting in a lowered water quality. The hydrologic pattern within the study area is a major resource consideration in developing a plan.

C. Vegetation-Vegetative sensitivities (Fig. 10) are determined by a number of considerations, including the ability of a vegetation type to withstand and/or recover from disturbances, the ease of regeneration by artificial means, relative abundance or scarcity (this also includes identification of rare or endangered species such as the

rare Cypress grove located in the isolated parcel of land to the south of Butano Ridge), and the aesthetic value of the vegetation type. The old growth redwood groves, as an example, are classed as highly sensitive because of their aesthetic value and because of the long time it takes for their regeneration. Vegetation and grassland areas, such as near the Homestead Interpretive Area, are considered highly sensitive because of their important role in maintaining the integrity of the wildlife habitat, soil stability and hydrology. Disturbing these grassland areas could cause problems in this chain of interdependencies.

D. Wildlife-The sensitivity map for wildlife habitat (Fig. 11) assigns relative values to wildlife habitat types within the planning area. The sensitivities were assigned on the basis of value to wildlife in terms of providing critical food, cover, and water requirements. Other factors, such as its relative abundance or scarcity or the importance of a habitat to rare or endangered species, are also considered. For example, grasslands are rated as highly sensitive because of the excellent food source they provide deer and other grazing animals, especially when this habitat is associated with a forest environment.

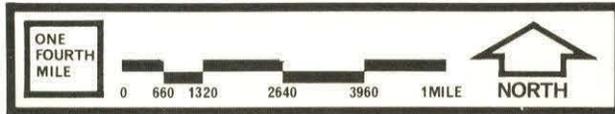
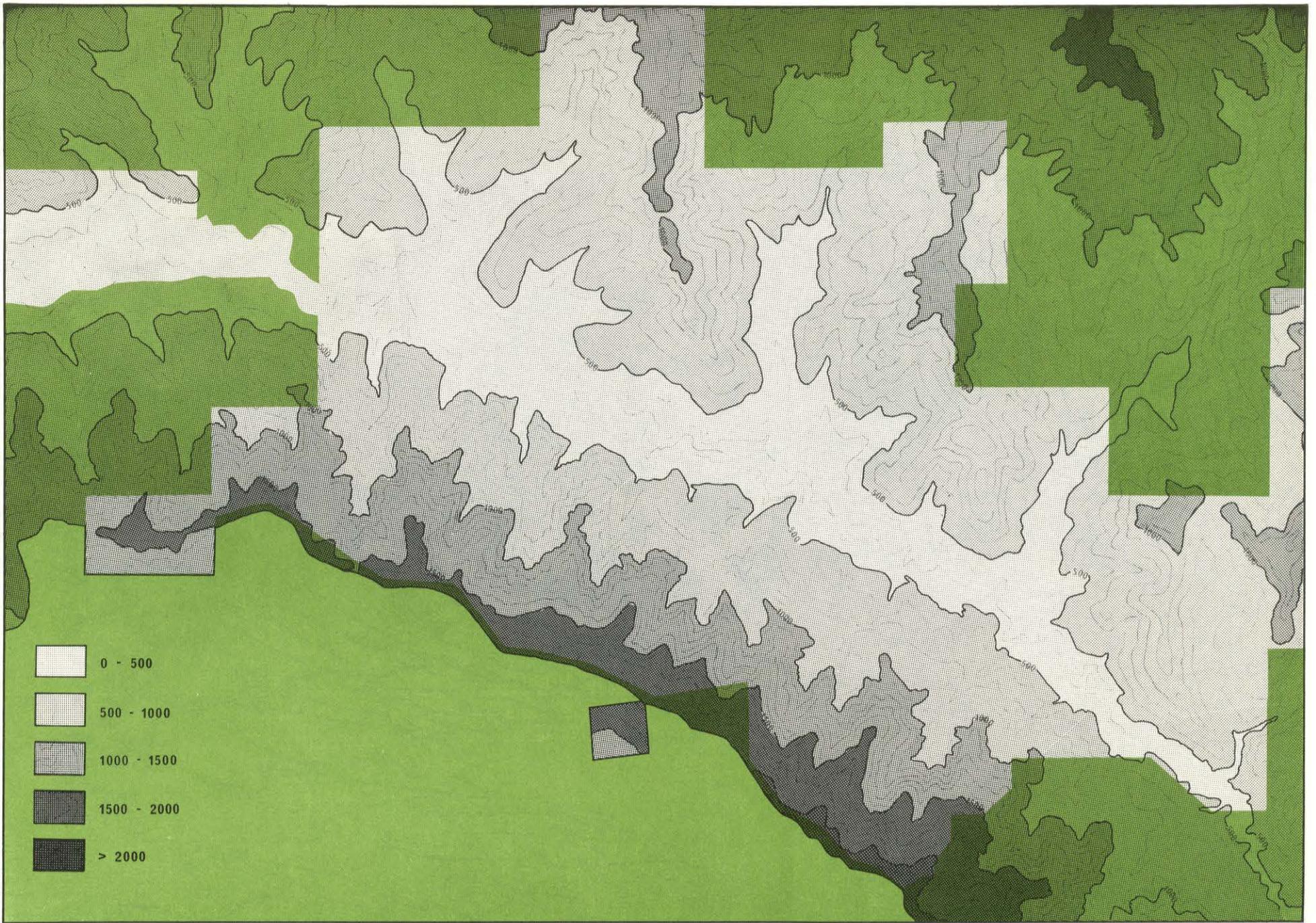
E. Composite Map-The composite-sensitivity map (Fig. 12) overlays all of the foregoing natural resource sensitivities and indicates the relative developability of lands within the study area. This map classifies most of the area as critically or highly sensitive, that is, unable to absorb development impact without substantial environmental damage.

This analysis does not impose stringent parameters, such as development vs. no development, for park purposes. It is, however, a tool for both planners and managers in making land use decisions and provides insight into the relative consequences of those decisions.

IV. Land Use Concepts

Based upon field investigations, other research, public meetings and meetings with San Mateo County Park staff, four conceptual alternatives were developed, which led to the recommended park plan presented in this report. These alternatives are represented graphically in Fig. 13.

Alternative A, indicated as "Auto-oriented," was a classical park design which allowed complete automobile penetration into the major portion of the park. This design would also have allowed the greatest number of people to use Pescadero Creek Park with a high degree of individual flexibility in moving through the park on various internal roads. Both ends of the park were connected via



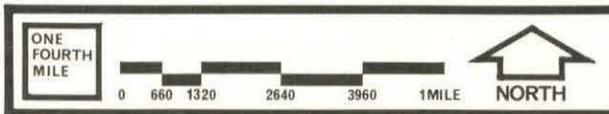
PESCADERO CREEK PARK
 SAN MATEO COUNTY, CALIFORNIA

RELIEF

6







PESCADERO CREEK PARK
 SAN MATEO COUNTY, CALIFORNIA

**SOILS & GEOLOGICAL
 SENSITIVITY**





ONE
FOURTH
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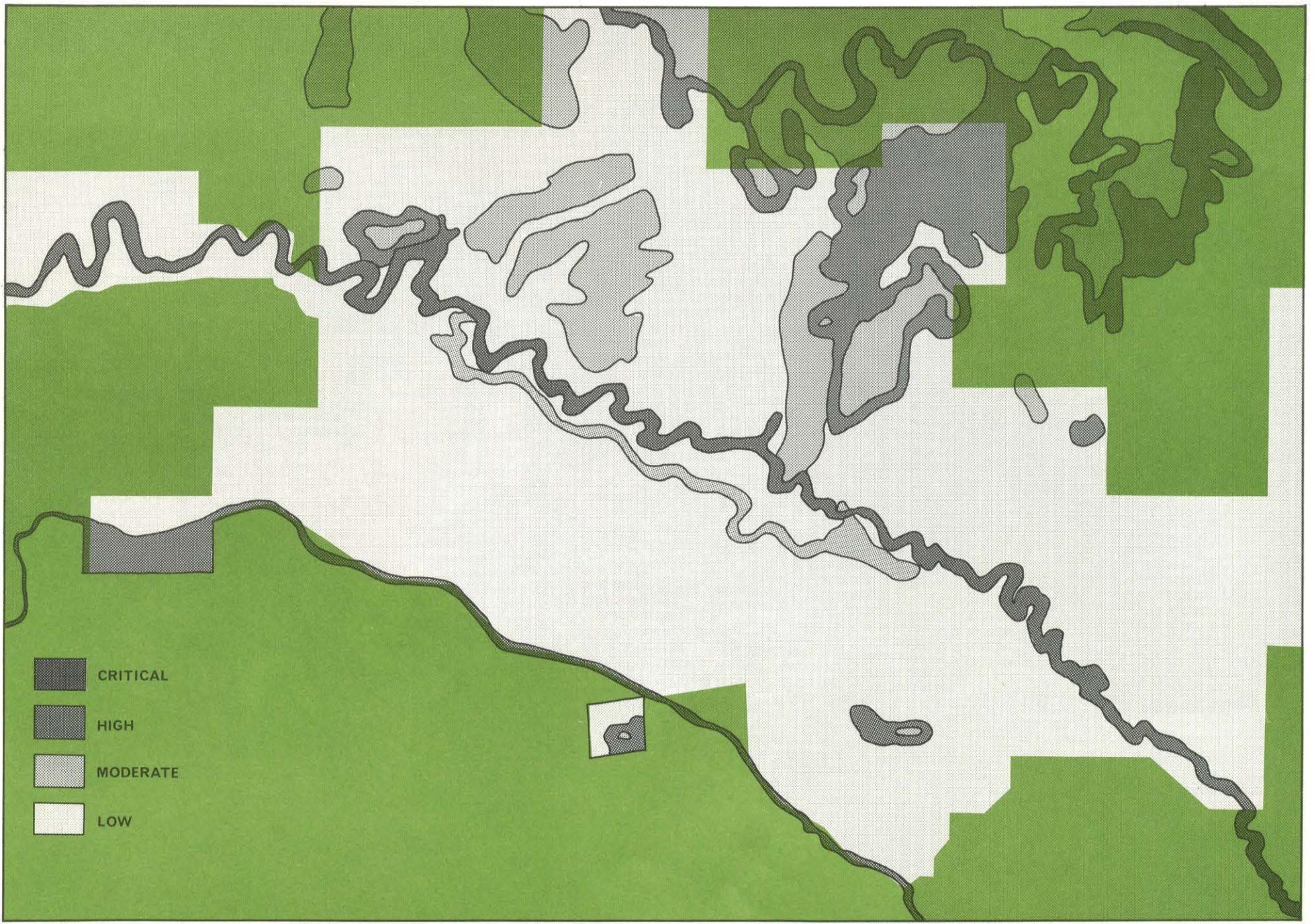
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PESCADERO CREEK PARK
SAN MATEO COUNTY, CALIFORNIA

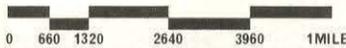
**VEGETATION
SENSITIVITY**

10



-  CRITICAL
-  HIGH
-  MODERATE
-  LOW

ONE
FOURTH
MILE



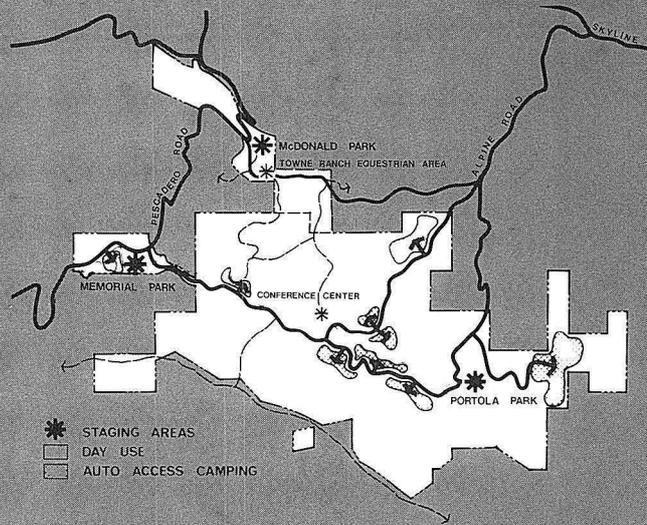
PESCADERO CREEK PARK
SAN MATEO COUNTY, CALIFORNIA

WILDLIFE SENSITIVITY



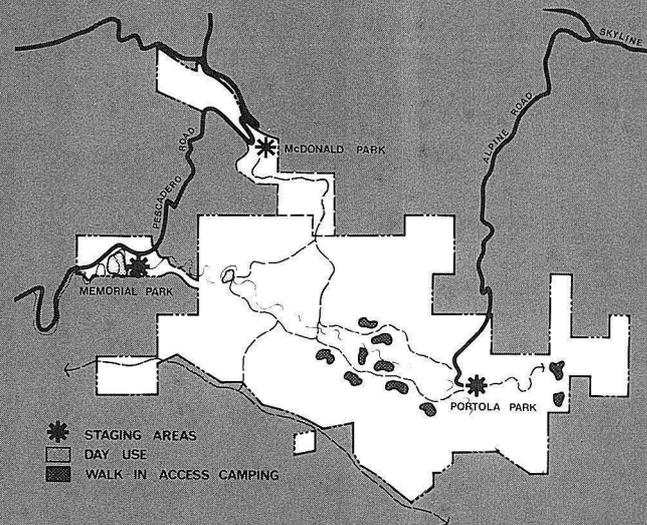
PESCADERO CREEK PARK
SAN MATEO COUNTY, CALIFORNIA

SUMMARY
NATURAL SENSITIVITIES



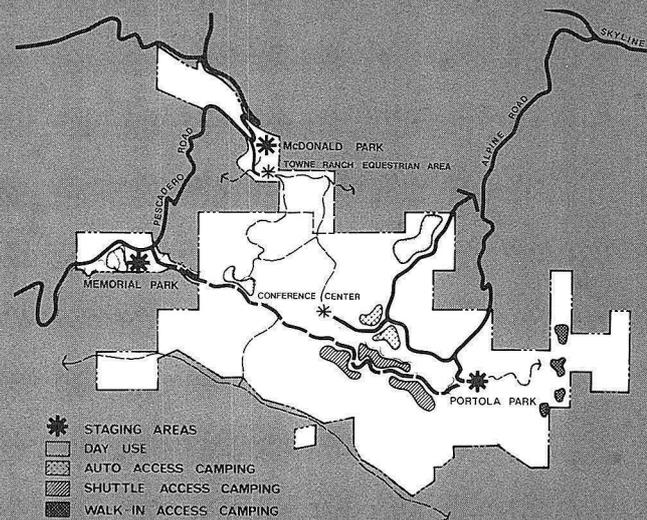
- * STAGING AREAS
- DAY USE
- AUTO ACCESS CAMPING

ALTERNATE A: AUTO ORIENTED



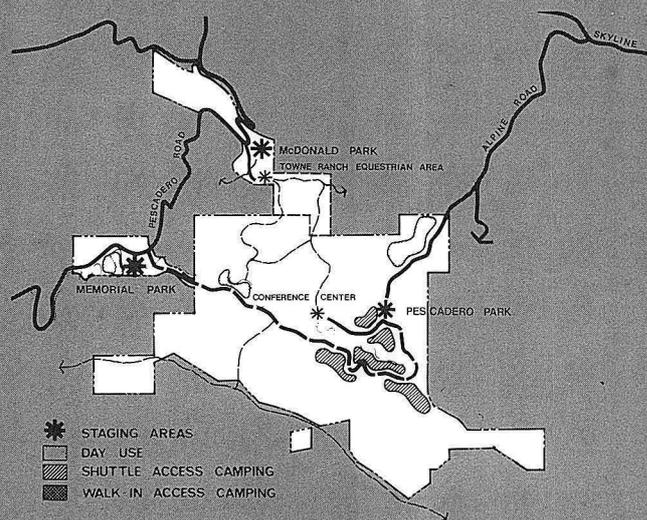
- * STAGING AREAS
- DAY USE
- WALK-IN ACCESS CAMPING

ALTERNATE B: WALK-IN ACCESS ONLY



- * STAGING AREAS
- DAY USE
- AUTO ACCESS CAMPING
- ▨ SHUTTLE ACCESS CAMPING
- WALK-IN ACCESS CAMPING

ALTERNATE C: MULTIMODAL/AUTO, SHUTTLE & WALK-IN



- * STAGING AREAS
- DAY USE
- ▨ SHUTTLE ACCESS CAMPING
- WALK-IN ACCESS CAMPING

ALTERNATE D: AUTO AND SHUTTLE WITHOUT PORTOLA

ONE MILE



PESCADERO CREEK PARK
SAN MATEO COUNTY, CALIFORNIA

CONCEPTUAL ALTERNATIVES

roads travelling along the existing Haul Road, through the Pescadero Creek Canyon, and camping and day use facilities were provided along the roads. Alternative A did not appear to satisfy the critical objective of minimizing the impact in the fragile Pescadero Creek Canyon riparian zone. Additionally, it would have contributed to air quality degradation as a result of automobile traffic moving through the park. The more sensitive portions of the park would have been impacted by vehicles moving through Pescadero Canyon; in essence, these areas would have become overlooks to the more developed portions of the park. Although this alternative readily solved the problem of providing for ample recreational use within the study area, it allowed only minimal opportunities for those wishing to hike or backpack in larger primitive zones within the park.

Alternative B, indicated as "Walk-in Access Only," was conceptually opposite from Alternative A. It provided minimal automobile penetration into the study area with a maximum amount of land for hike-in trails, hike-in campgrounds and interpretation. In addition to creating potential management and operational problems because of the separation of facilities at the Portola and the Memorial ends of the park, this alternative lacked real opportunities for recreationalists who are more automobile oriented, especially those who use vehicles for camping purposes. This concept respected the natural values of the area, but did not seem to fulfill the needs of the citizens of San Mateo County for a variety of recreational experiences. There is a need to combine both approaches to park use: minimal resource impact and maximum use of the recreational resource.

Alternative C, indicated as "Multi-Modal /Auto, Shuttle, and Walk-in," was an approach to developing Pescadero Creek Park to serve the needs of automobile-oriented campers and recreationalists, elderly and handicapped people, and also the needs of those who desire more primitive experiences close to the urban concentrations of San Mateo County and San Francisco.

Conceptually, this alternate provided for automobile access at both ends of the study area, but with termini at staging areas. Automobiles parked at these staging areas and visitor movement from there through the park was accomplished by shuttle system, hiking or bicycling. Camping and picnicking areas of varying sizes would also be available.

Alternative D, "Auto and Shuttle Without Portola," was a plan developed to indicate the opportunities for the development of Pescadero Creek Park without Portola State Park as an integrated amenity. It was necessary to consider the possibility that the State of California and the

County of San Mateo would necessarily have to operate the individual park areas themselves as opposed to developing a single administrative entity to guide the management and development of the entire study area.

After thorough investigation by the public, the county staffs and the consultants, it was determined that Alternative C had the best potential as a plan for the use, preservation, and perpetuation of Pescadero Creek Park.

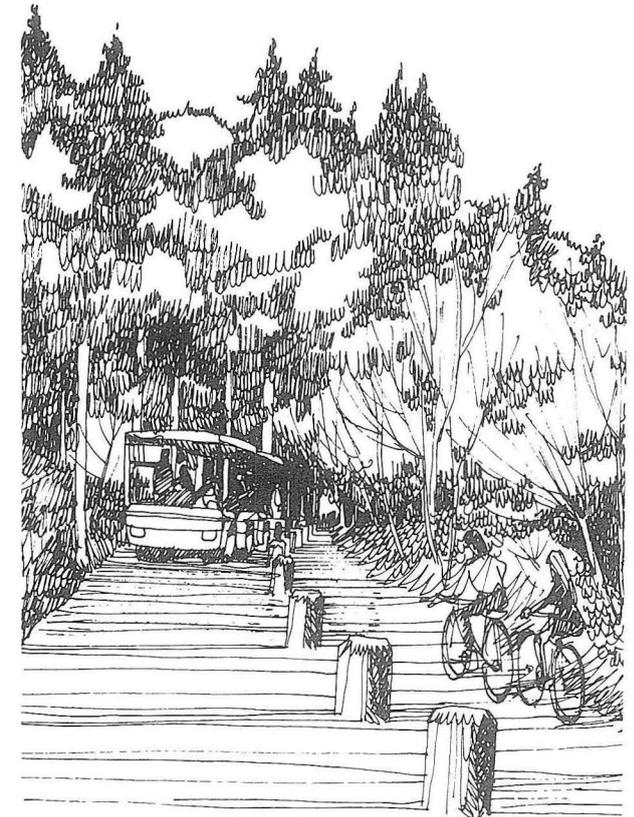
V. The Recommended Park Plan Concept

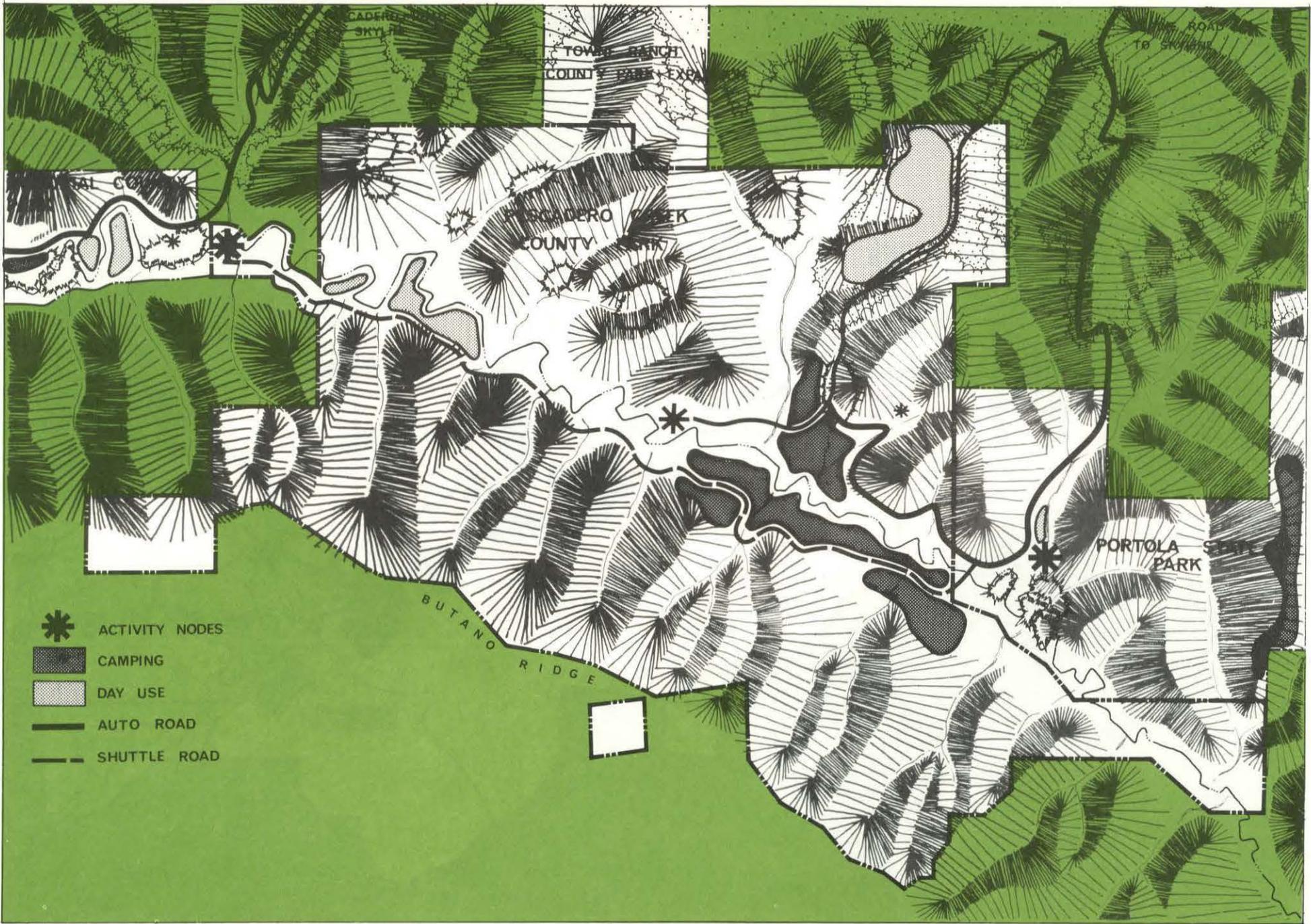
As indicated in the preceding discussion, the Pescadero Creek Park Complex is beset with many problems and potentials. Park development must be sympathetic to the prime resources, Pescadero Creek and the magnificent redwood groves. Rugged terrain, access, and the impact of users are primary considerations.

As competition increases for space and resources in our urbanized world, man has to create highly sophisticated systems to efficiently manage the flow of goods and services and the myriad activities that occur. While the plan itself is not urban in any sense of the word, it organizes activities in such a way as to maximize human use and enjoyment while protecting the environment of the park.

The concept for Pescadero Creek Park is very simple and is portrayed graphically in Fig. 14. However, the detailed planning for its implementation has employed the most sophisticated planning methodology. The plan divides the park into two major use zones: camping or overnight use in the eastern half, or the Portola State Park end, and day use as the primary activity in the western, or Memorial Park end. These two zones are connected by a public shuttle system paralleling Pescadero Creek on the Old Haul Road alignment. Details of the general development plan are presented in Fig. 15.

Each end of the park has an entrance station, a headquarters area, and an interpretive center to greet the visitor. Access to and between these centers has capitalized on the existing road network. Within the park complex many uses and activities are available. Once out of the automobile, a visitor can move about the park by shuttle or by walking, and enjoy the special interpretive facilities or experience the solitude of the redwood-creek environment. Vigorous hikes into the primitive areas, leisurely strolls on any of the park's 31 miles of trails, bike rides on the specially designed path, and horseback rides on separate equestrian trails are among the



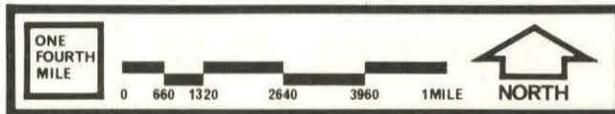
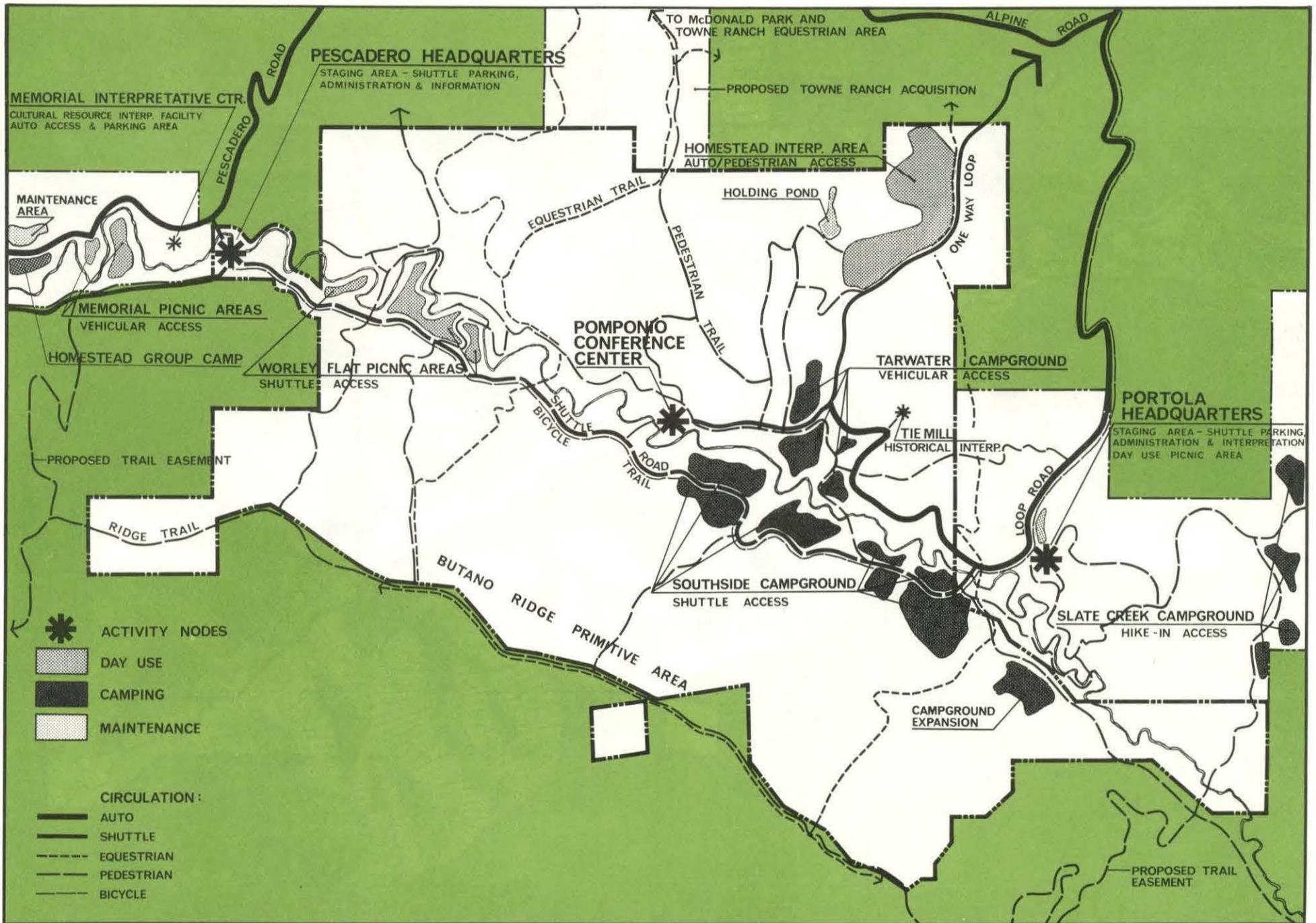


ONE
FOURTH
MILE



PESCADERO CREEK PARK
 SAN MATEO COUNTY, CALIFORNIA

CONCEPTUAL PLAN



PESCADERO CREEK PARK
SAN MATEO COUNTY, CALIFORNIA

GENERAL DEVELOPMENT PLAN

activities available to the park visitor. Other daytime activities include visiting the cultural exhibit at the Memorial interpretive center or the natural resource exhibit at the Portola interpretive center. Interpretive walks throughout the park complex, along with picnicking, fishing, and swimming will also be popular activities.

Special use areas include living history exhibits: a demonstration ranch with a reenactment of homesteading in California's coastal range, and the sawmilling of railroad ties at the Moore, Fisher and Troupe site on Tarwater Creek.

Youth-oriented activities include opportunities to use the Conference Center at old Camp Pomponio (Honor Camp site), a special group camp in Homestead Flat at Memorial Park, and swimming in designated areas along the creek.

The plan also recommends that the Towne ranch be acquired by the county, as it would fulfill three very important functions. Most importantly, it would physically connect the Memorial, Pescadero, and Portola Park complex with Sam McDonald County Park. Secondly, it would add to this park complex a grassland landscape type desirable to round out the public experience in this primarily forested environment. The Towne Ranch is also ideally situated for a recommended equestrian staging area.

There will be a diversity of camping experiences available within the park complex. There is youth group camping in Homestead Flat, and a special camping facility for horsemen at the equestrian staging area will be developed. There will be the traditional type of camping associated with the automobile at Tarwater. For those who want more tranquility, camping access will be available, via the shuttle system or by foot, at Southside Campground in the Hooker Creek area. For the backpacker, Slate Creek will offer seclusion and an opportunity for hiking remote trails to other parks in the region, like Butano and Big Basin State Parks. The total number of new camp sites exceeds the existing number of camp sites in all three study areas by about 650 units, with ample provision for camping of all types.

VI. The Park Plan Specific

There are many facilities proposed to occur within the broadly defined day use and camping zones, the two major park use zones.

There are two headquarters/interpretive nodes with associated visitor parking and services; one at Portola, and the other at Memorial-Pescadero. Four separate camping and day use development areas are provided, each with their own function and identity. The camping areas are at Homestead Flat in Memorial Park and Tarwater Creek, Southside and Slate Creek in Pescadero and Portola Parks. Developed day use areas include the Memorial Grove area, Worley Flat, and two small areas near Portola headquarters, Sempervirens and Peters Creek picnic areas.

The plan designates the upper slopes of both sides of the canyon as primitive areas-Butano Ridge and the Park Gulch, Upper Tarwater area. Special feature areas are numerous: the Equestrian area, the Homestead Ranch, the historic mill, and the Pompanio Conference Center. Service developments would include: a maintenance area on Pescadero Road in Memorial Park; three sewage treatment plants in Portola, Pescadero, and Memorial Parks; (the Honor Camp facility in Pescadero will be phased out over a period of time); and a small holding pond on the upper Tarwater to provide water services for park users.

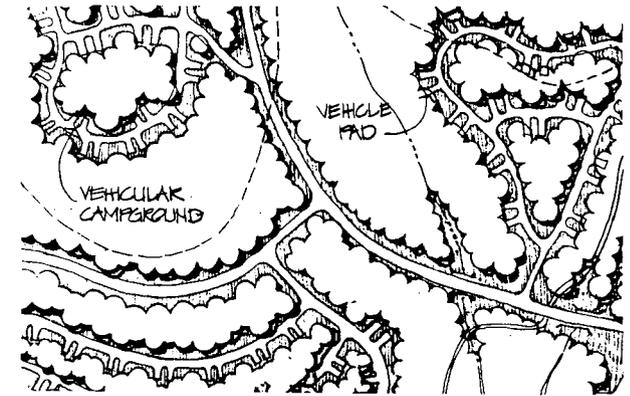
All of these use areas are interconnected by several modes of transportation, the automobile, the interpretive/shuttle system, and trails for bike, equestrian and pedestrian users.

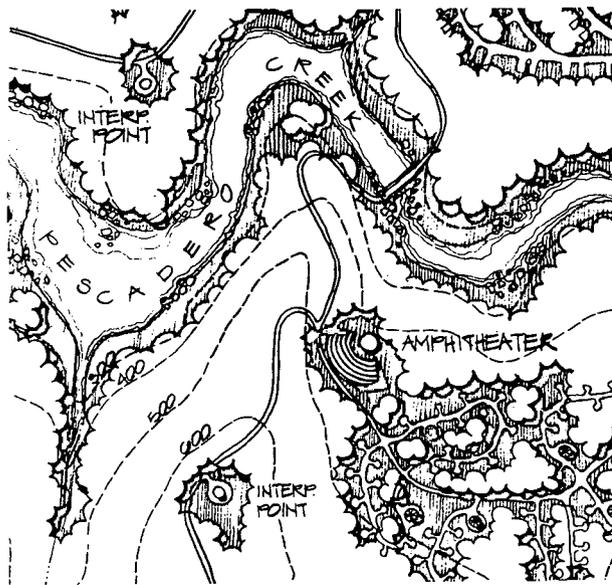
The plan concept can be more completely understood when its various geographic components are described in detail. The following are those descriptions.

Portola Use

This eastern sector of the park (Fig. 16), encompassing lands from the Pompanio Conference Center to and including Portola State Park, is served by an extension of the Portola Park road. Access to use areas and to the interpretive shuttle system is from this road.

All existing campgrounds have been removed from the sensitive redwood groves and have been replaced by a greater number of campsites in more tolerant resource areas. Three types of camping opportunities exist here. Auto-oriented campgrounds which are accessible from the loop road provide 160 units of camping. Sixty units of hike-in camping are provided in the Slate Creek area and can be reached by trail. Finally, a special type of camping on the south side of Pescadero Creek in the Hooker Creek area, which has shuttle or pedestrian access, provides a total of 280 camping units. This shuttle access will be discussed in more detail later in the plan.





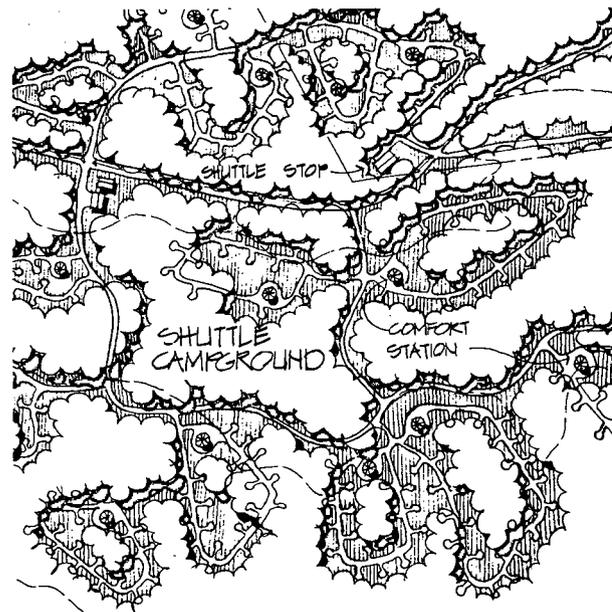
The plan includes an amphitheater to the east of Rhododendron Creek and will serve as a major interpretive facility for overnight campers at the auto and shuttle campgrounds. Each campground additionally provides a fire pit area within its sub-units which will be available for occasional gatherings of campers.

To the north of the loop road, above the intermediate campground, is the historic tie mill interpretive area, which will explain the historical utilization of the redwood resource.

In an attempt to preserve the natural resources of Pescadero Creek Park for the people, visitors are encouraged, unless they are camping in the vehicular campgrounds, to leave their automobiles just off the entrance road in the Portola Headquarters staging area, which will provide 500 parking spaces. Here a visitor has the opportunity to use the interpretive facilities, with some day use picnicking at Peters Creek and Sempervirens picnic areas. However, auto access is available for those who choose vehicular camping. Tarwater campground is accessible by automobile, as is the Pomponio Conference Center. This center will utilize the existing Sheriff's Honor Camp as a group conference center for the general public and will take advantage of the solitude of this portion of Pescadero Creek Park.

The entire Loop Road is proposed on existing or historic road alignments and does not propose new road cuts. Upgrading of certain portions of the Loop Road, in addition to re-construction of the section between Portola Headquarters and the Pomponio Conference turnoff, will be necessary. The Loop Road becomes one-way out-bound between the Conference Center turnoff and Alpine Road. In addition to being a people mover, it is intended as an interpretive road which allows users to enjoy their environment without the danger of on-coming automobiles. On this one-way road is located the Homestead Interpretive Area, with parking provided for approximately 30 automobiles. Because of extreme grades, shuttle access cannot be extended to this area. The Homestead Interpretive Area will tell the story of early California homesteading in a house or barn rehabilitated for this purpose, and will graze stock of the type that historically existed. (Stock will not exceed the natural carrying capacity of the land.) Adults and children can be made aware of the rigorous life style our forefathers chose.

Visitors, after leaving their automobiles at the staging areas, which exist in both Portola and in the western end of the study area at Memorial, can use the interpretive shuttle system which ties the ends of the park together. This system would run on the existing alignment of the old Haul Road on a scheduled basis and would provide not only



shuttle movement into the south side campground areas, but would also provide stops along the way for individuals wishing to use the various trail heads and interpretive features. The system should be an element integrated with the total interpretive plan of the park. Each of the two initial rubber tire shuttles would consist of a tractor-type unit, pulling approximately five units. This system could use propane or even electricity as a power source. In addition to providing interpretation and access, the shuttle road would also be available for pedestrians and cyclists to travel from one end of the park to the other. The five mile length would be a pleasant, relatively level walk and an enjoyable bicycle ride.

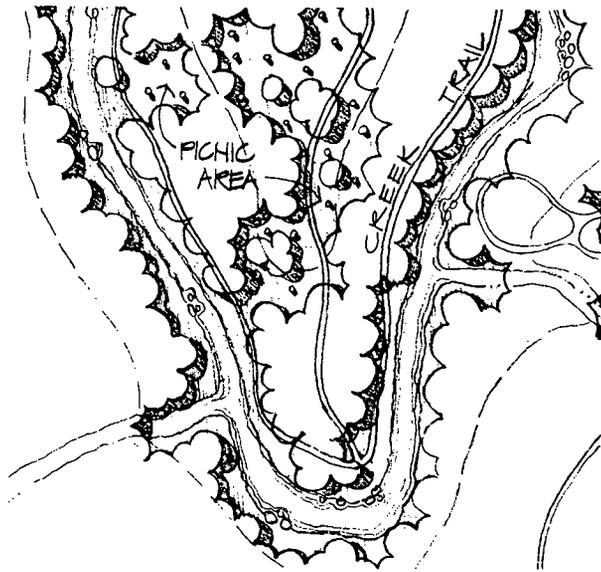
Memorial-Worley Flat Use

Toward the western end of the study area (Fig. 17), along Pescadero Creek, is the Worley Flat picnic area which will contain approximately 140 picnic sites. Visitors will reach this area either by the shuttle system, bicycles or by hiking, thus providing penetration and use of the Pescadero Creek Canyon without the negative impacts that the automobile would necessarily bring with it.

Heavy use, coupled with gentle gradients which make pedestrian movement easy in the Memorial Park area, has resulted in natural resource degradation, as discussed earlier in the report. The existing campgrounds provide for a 24 hour a day use during the heavy use periods of the year and consequently impact the resources, including water and utility systems, to a larger degree than with day use. It is necessary to reduce this impact but at the same time provide for the recreation needs of county residents to the greatest extent possible.

Campgrounds located at the Portola end of the study area are located in those areas where heavy human impact will be less detrimental to the resource. All camping within Memorial Park should be phased out and converted to day use. The lessened impact as a result of fewer visitor hours within the Memorial area, coupled with the rotation of picnic areas on an as-necessary basis, will help regenerate vegetation, and lessen soil compaction and resultant erosion.

The development focus, as can be seen on the accompanying Memorial area schematic, is the Pescadero Headquarters and associated staging and information area. Here, adjacent to the corridor between Memorial and Pescadero Parks, there is sufficient acreage to provide parking for approximately 400 automobiles. A visitor will then have the opportunity to utilize either the Worley Flat day use area via shuttle system, bicycle or foot path, or to use the closer day use area within the existing Memorial Park. Other opportunities to park automobiles in Memorial Park exist at the recently dedicated Memorial



Interpretive Center or at an area just to the north of Huckleberry Flat picnic area. Vehicular access into the Memorial Interpretive Center should include the realignment of the present acute-angle intersection with Pescadero Road to a 90 degree intersection. Consideration should also be given to the inclusion of a left turn lane with stacking distance for a few vehicles. These improvements will provide a much safer intersection with adequate sight distances. The proposed road between the Memorial Interpretive Center and the Sequoia Flat picnic areas basically follows existing alignments. Where this road crosses Pescadero Creek it will be necessary to upgrade the existing ford to a low bridge structure which will be safer during periods of high water. Pedestrian bridges will need to be constructed in areas where none exist to provide for free access throughout.

The existing concrete dam, which provides for swimming in Pescadero Creek just below the Memorial Interpretive Center, impedes the natural flow of Pescadero Creek and is out of character with this highly scenic element. The dam will be removed and alternate swimming sites developed in a more natural and sympathetic manner, in the form of swimming holes, as indicated on the accompanying schematic plan.

The only exception to total day use of this portion of the park is the existing Homestead Group Campground which will be retained as a youth camping area. This campground will connect by trail into the youth group camps at Sam McDonald Park to the north, making Homestead into one-half of a two-night camping opportunity with a variety of hiking experiences available between and adjacent to each park.

Interpretation at the Memorial Interpretive Center will focus on the cultural aspects of Pescadero Creek Park and on natural aspects at the Portola end. Information will, however, be provided on an as-needed basis with reference to the natural systems in the entire area in the form of leaflets or brochures, which could include self guiding trails. This gives the San Mateo County Park Department the opportunity to develop exhibits, programs, and presentations which are non-competitive and which do not have to be repeated at each end of the Park.

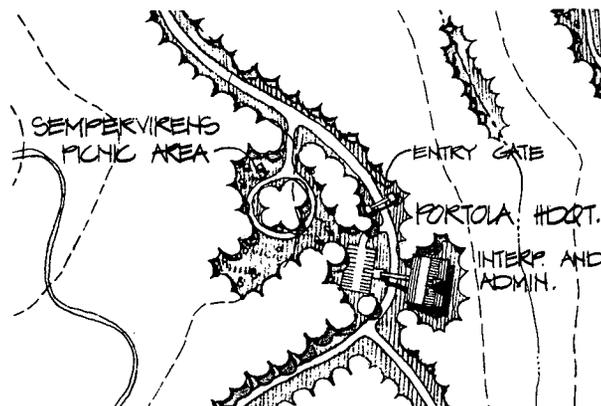
The existing trail system within Pescadero Creek Park will be retained and upgraded as necessary to control erosion. It will be necessary at each end of the park area to secure trail easements providing access to Butano Ridge. The Bloomquist Trail is an efficient access to the Butano Ridge on the west as is the road to Butano Ridge from Portola State Park on the east.

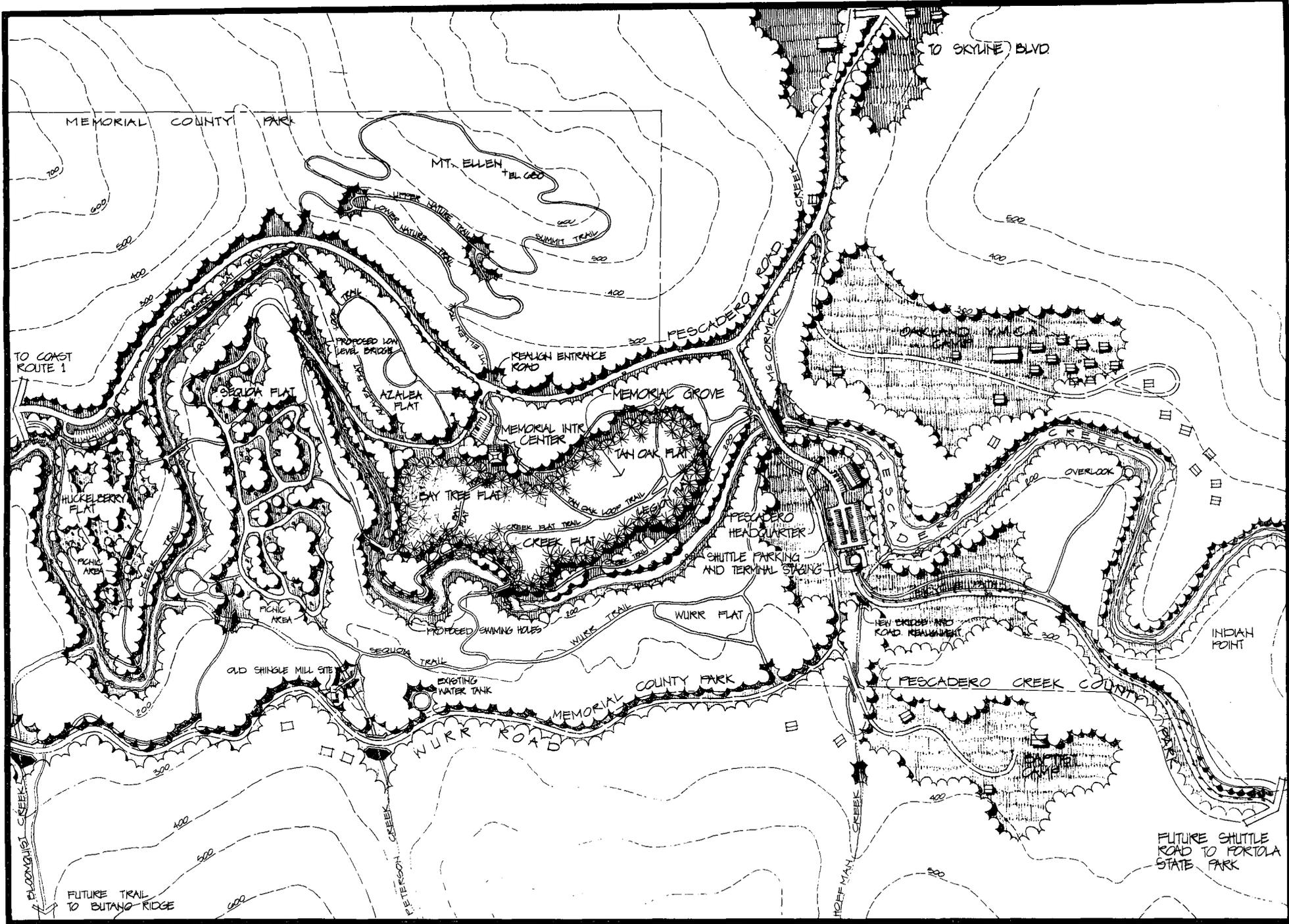
San Mateo County is a major equestrian activity area

in the Bay Region. Facilities for equestrians will be provided within the park area. A corridor of land between Pescadero Park and Sam McDonald Park is being acquired which will tie these two areas together. This acquisition will allow for the development of an equestrian area. Here, overnight equestrian camping will be provided and a new equestrian trail system constructed, with two basic trip options. One trail provides a short loop of just a few miles which descends into the northern portion of Pescadero Creek Park, above the Worley Flat area, and then loops back to the equestrian area. The other provides for a much longer trail ride of approximately 13 miles. This trail would utilize a portion of the previously mentioned short loop, but would continue on to Pescadero Creek where it would cross the creek and travel up the north slope of Butano Ridge, at which point equestrians would have the opportunity to ride the ridge trail either to the west toward the ocean along yet-to-be-acquired trail systems, or to the east toward Big Basin and Skyline. The internal trail on Butano Ridge, where it reaches an area above the southside campgrounds, will travel back down into the Pescadero Creek Canyon, across Pescadero Creek, and up through the boundary area between Portola State Park and Pescadero Creek Park until arriving back at the equestrian area. Short distances of this trail will necessarily be along easements. The trail just to the north of the existing Portola boundary, where it intersects with the Pescadero Creek boundary and the trail immediately above the Homestead Interpretive Area would both require easements for travel. If easements are unattainable the trail can be relocated within the park.

Architectural Character

The architectural character for all proposed structures should express a unified visual impression and be harmonious with the resource. This can be accomplished by using a limited and sensitive selection of building forms, materials, and colors which are responsive to orientation, light, and other design considerations. Structures should blend with their immediate surroundings and should be visually unobtrusive within the larger landscape setting. Through scale and design they should communicate a small, intimate character. Architecture, in addition to being functional, should also be visually stimulating, possessing interesting forms and intimate details which arouse curiosity upon casual observation and bring delight upon closer examination. Skylights and curtain walls of glass will provide the opportunity to use as much natural light as possible in both the management and visitor use areas of structures. Buildings also must express permanence and must seem appropriate to their location.





PESCADERO CREEK PARK
SAN MATEO COUNTY, CALIFORNIA

MEMORIAL AREA
SCHEMATIC

17



Buildings should be sensitively sited to reflect the natural pattern of the land. Both visitor and management structures should be situated so as to have pleasing views from their interiors toward natural settings.

All buildings must relate to one another in form, arrangement, color and choice of material, and reflect a unified appearance, an image of a total architectural community.

General considerations are as follows:

Building Height Limit-Structures, in order to be subdominant within the redwood setting, should be limited to approximately 40 feet.

Parking-Adequate parking space must be provided for each function introduced in association with structures. In difficult terrain or where highly sensitive resources exist, parking in structures should be a design option.

Storage and Service-All buildings are to be serviced in areas screened from public view, preferably with natural plantings as a buffer.

Landscaping-The use of appropriate native plant materials, exterior furniture, and building materials to convey the design intent of the structure should be identified in the preliminary design stages. An approved plant materials list, as well as building materials list, should be formulated and adhered to throughout the development of Pescadero Creek Park.

Emergency Access-All buildings must be readily accessible to fire fighting equipment and for other emergency procedures.

Signs-Signs should be limited in size and number to those necessary for normal orientation and direction of park visitors. Sign standards (environmental graphics) should be developed as a complete and integrated system which is harmonious with the landscape and the architectural setting. The development of a graphic system which focuses visitor use, provides signs for self-interpretation, and identifies management use areas, is of critical importance in moving visitors through the park area with ease and comprehension.

Utilities

Definitive recommendations concerning utility systems can, of course, only be made following more detailed individual studies. What follows are conceptual viewpoints based on an overview of existing conditions and the accompanying land use recommendations.

Sewerage

The sewage treatment plants in Pescadero Creek Park and Portola State Park and the plant in Memorial Park currently provide secondary treatment and meet water pollution control standards. It is the plan concept to make use of these facilities to the greatest extent possible. However, from an operational standpoint, the ultimate consolidation of small separate sewage treatment plants is desirable. With this in mind, the following is proposed.

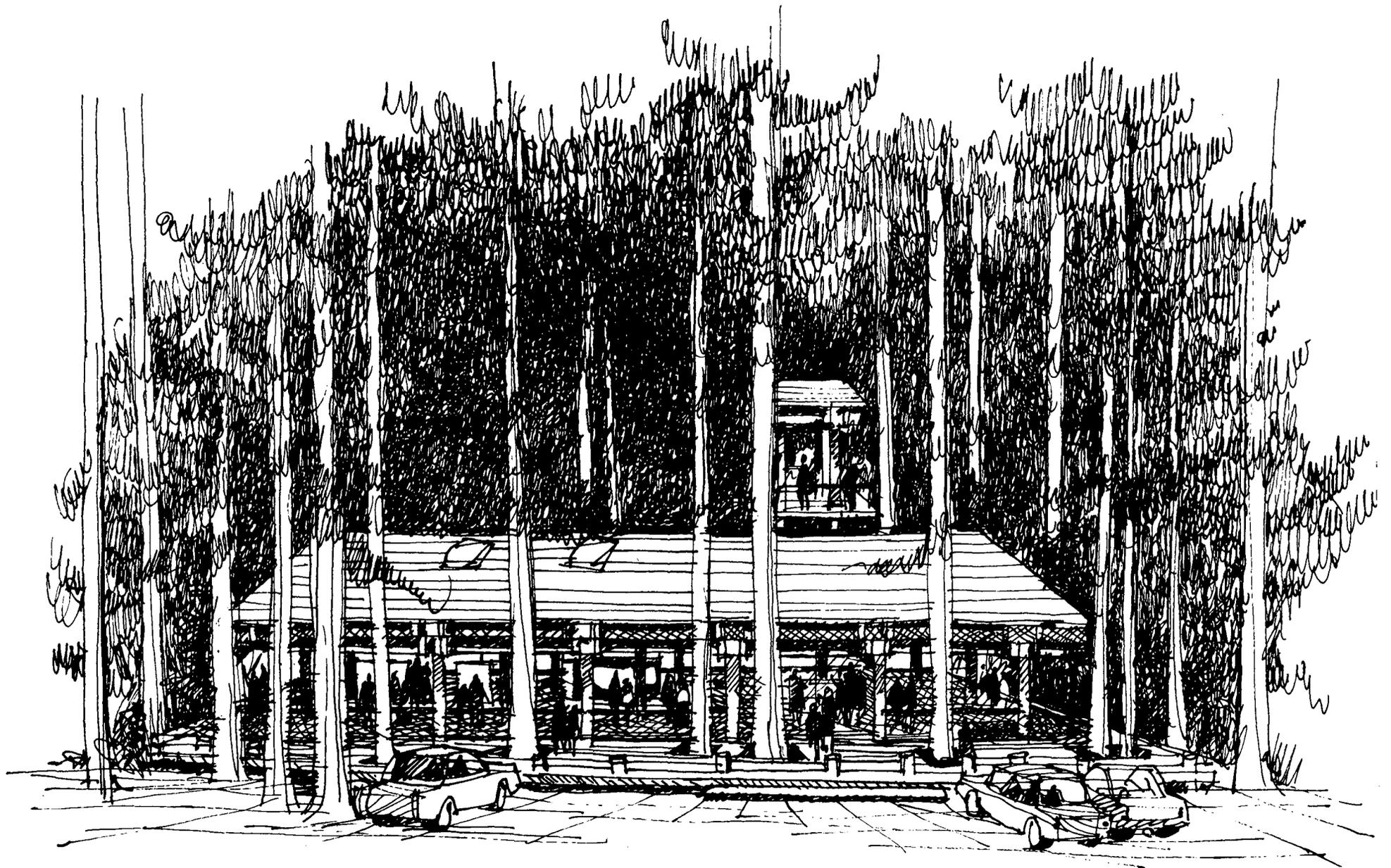
First, a detailed sewer master plan for the Pescadero and Memorial areas should be prepared. This study will deal with the entire spectrum of sewage problems in considerable detail, and will allow the Water Quality Control Board and other concerned agencies to be involved.

Second, at the Portola end of the park, an ultimate peak flow is anticipated of about 107,000 gpd (see Appendix A), seven percent above the design capacity of this facility. Based on conservative figures, this will require expansion of the plant. However, with the installation of conservation-oriented fixtures, such as toilets with low volume flush tanks, the waste generation can probably be kept within the capacity of the existing plant. This Portola plant is a sophisticated secondary treatment facility serving a part of the park quite removed from the Memorial activity area, so it is recommended that this existing sewerage system not be included in any planned treatment plant consolidations. It is likely that the park will be constructed within the capacity of the plant, as designed, and the collection systems and pump stations required to get the sewage to the plant will be the only needed improvements.

The Slate Creek Campground east of the Portola developed area will be served by minimal sanitary facilities. This campground is the only remote or primitive type campground within the park complex and development here, including sanitary facilities, should respond to that. Facilities which would require construction trenches and/or vehicular access into the Slate Creek area would be undesirable. Self-contained toilet treatment systems of the type currently available that convert sewage and garbage to compost, are in keeping with the remoteness of the area and should be used. Drinking water would not be provided in this area and would be either drawn from Slate Creek or carried in by individual users.

Sewage treatment for use areas from the conference center (Sheriff's Honor Camp) to the west limit of the park will eventually be consolidated. The Memorial and Worley Flat areas are to be converted to day-use areas (with the exception of the Homestead Group Camp)





Parking

Information & Display

Observation Tower

**Interpretive Center Elevation:
Architectural Character Sketch**

with anticipated drops in peak flows during the first years of conversion. Eventually, the capacity of the Memorial unit will be exceeded. A combination of the new day-use area at Worley Flat and the Memorial day-use area will develop an eventual flow of some 45,000 gallons per day, which is a 50 percent increase over the existing 30,000 gallon capacity at Memorial. Eventual addition of the 15,000 gallons per day generated by the conference center to this Memorial system will double the present capacity to approximately 60,000 gallons per day peak flow.

Although the existing sewage treatment plant at the conference center should be used as long as it is efficient, there will eventually be a demand for centralized sewage treatment which can accommodate all of these areas, including the conference center, Worley Flat and the Memorial day-use area.

The sewage treatment plant at Memorial can be expanded to accommodate 60,000 gallons per day, but would require more area for plant expansion and spray fields, resulting in a reduction of overall visitor use acreage. Although it appears the expansion can physically be accomplished, an area with less diverse terrain which does not infringe on the public use area in Memorial would be more desirable.

The planned San Mateo Outdoor Educational Facility, to be developed immediately west of Memorial Park along Pescadero Creek Road, will have to provide sewage treatment facilities for at least 200-300 persons. It would seem logical to consider a joint treatment facility, combining the park and the educational facility. If the solution is to combine treatment, the sewage treatment plant should be provided on a new site rather than expanding the present plant. It is recommended that it be located where planned by the educational facility, just west of the park boundary.

Regardless of the ultimate location of the sewage treatment for this portion of the park, a trunk sewer should be provided from Memorial Park roughly along the shuttle road (Old Haul Road) to serve the planned improvements at Worley Flat and eventually the Conference Center (Sheriff's Honor Camp) when the plant there is phased out. The restrooms and maintenance areas in Memorial, which are now on septic tanks, will also be connected to the main system.

Secondary treatment with spray field disposal systems are anticipated for all activities with the exception of the Slate Creek Area. The estimates in this report provide for this level of treatment plus storage of effluent through the rainy season. This storage is provided as it is anticipated that in expanding and modifying the systems,

the Regional Water Quality Control Board will add this requirement to insure that surface runoff of effluent does not reach Pescadero Creek.

Solid Wastes

In the interest of waste collection efficiency, the park should develop centralized waste handling areas at the Portola and Memorial ends of the park. The existing trash container with compactor at Portola Park appears to be an attractive element in a centralized handling solution. As these units will handle 11 times their capacity of 30 cubic yards of uncompacted garbage, it is recommended that an in-park collection system deliver loose wastes to these two facilities. Once the container is filled, it can be removed by a scavenger company or, alternatively, the park could purchase a dump truck or service vehicle that could also be used in a general maintenance program.

Regardless of the system used to handle solid wastes, it is apparent that all the garbage will have to be trucked to an acceptable dump location. At present, this might necessitate hauling to the Marsh Road facility in eastern San Mateo County. If the county develops its general purpose dump site near Pescadero, these wastes would more appropriately be disposed of at that location.

Gas, Electricity, & Telephone

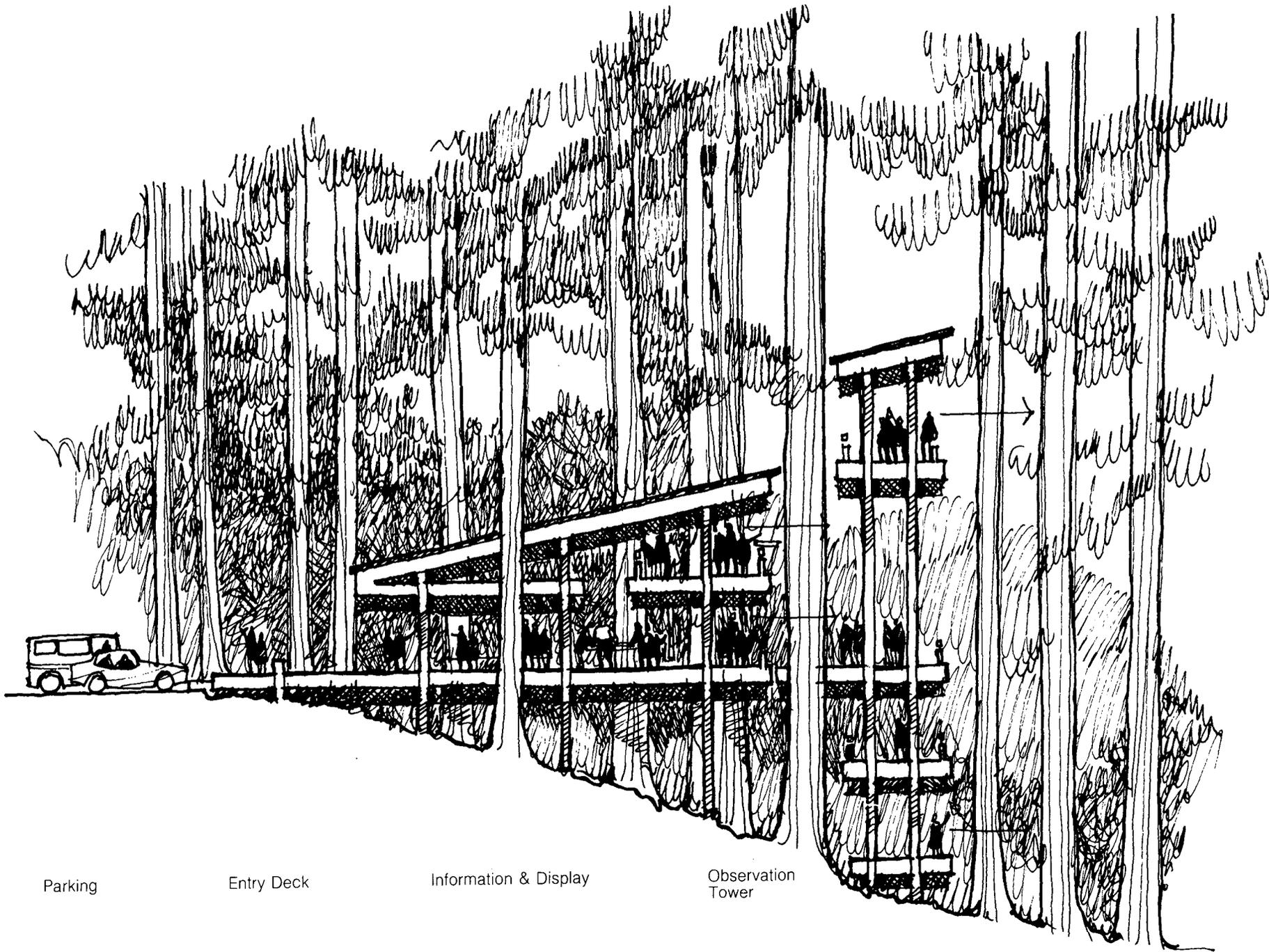
There is, at present, electrical power and telephone service to the park. There is nothing to indicate that utility company planning would preclude development of the magnitude proposed. These services would be expanded as the park's need grows.

As there is no underground natural gas service in the area, is anticipated that bottled gas service will be available, assuming liquified petroleum gases will remain an element of ready energy supply.

Water Supply

As mentioned in the section on Existing Utilities, one challenge in the planning for Pescadero Park is the development of a water supply adequate to meet projected demands. An analysis of the figures shown in the Existing Utilities section indicates that at the present time a water deficit usually will occur during August and September, the period of peak park usage. A water system must find a solution to the water supply problem that can meet the use demands while at the same time protecting downstream riparian users and the associated fishery during deficit months.

Appendix A to this report presents a model for water usage in the parks based on conservative estimates of park utilization and associated water supply requirements. The concluding table in this appendix points out that



Parking

Entry Deck

Information & Display

Observation
Tower

**Interpretive Center Section:
Architectural Character Sketch**

although on some days during the summer the peak demand will reach 171,300 gpd (or .27 cubic feet per second on a daily average basis), at no time does the monthly use exceed the granted water right. These figures show the maximum monthly demand at .23 cfs where the granted right is for almost .54 cfs. On the surface this indicates that the water right granted to the parks will serve the ultimate development plan. This is not truly the case, however, as Table 2 in the Existing Utilities section indicated that, historically, in the months of August and September, the mean monthly discharge of the creek falls below the level of water rights already appropriated. This means that the presently authorized users could completely dry up Pescadero Creek during periods of low flow.

Given that the projected demands on an average basis will not exceed the current .539 cfs water right, the development strategy then becomes one of providing sources to supplement low flows in the creek. The source of this water will naturally be from groundwater or surface water storage.

Reliable developed groundwater sources are not prevalent in the areas adjacent to the park. What have been developed consist mostly of spring fed systems. Furthermore, the geology of the area does not suggest the existence of firm groundwater aquifers. As reliable groundwater resources would most likely only be available during periods of high flows in the creeks, the plan is to develop surface resources supplemented by wells or springs if further study proves them viable.

The plan concept is to capture a portion of the high creek flows from November to May and store water for use in the low flow summer period. In the summer, water would only be taken consistent with existing water rights and the minimum flow required to support the fishery. The release of water through leakage of holding ponds and spray disposal of treated sewage effluent would actually add to the groundwater resource during this dry period.

Dry weather storage can be provided by additional tanks within the planning area or by the construction of a holding pond on one of the tributaries to Pescadero Creek. While it may be necessary to pump from Pescadero Creek to storage tanks, a holding pond on a tributary to the creek can impound high flows to help satisfy peak summer park demands with very little expenditure of electrical energy. The only alternative to this would be to construct a large number of water storage tanks throughout the area. This is not recommended, due to the nature of the topography and the resultant scarring of the landscape.

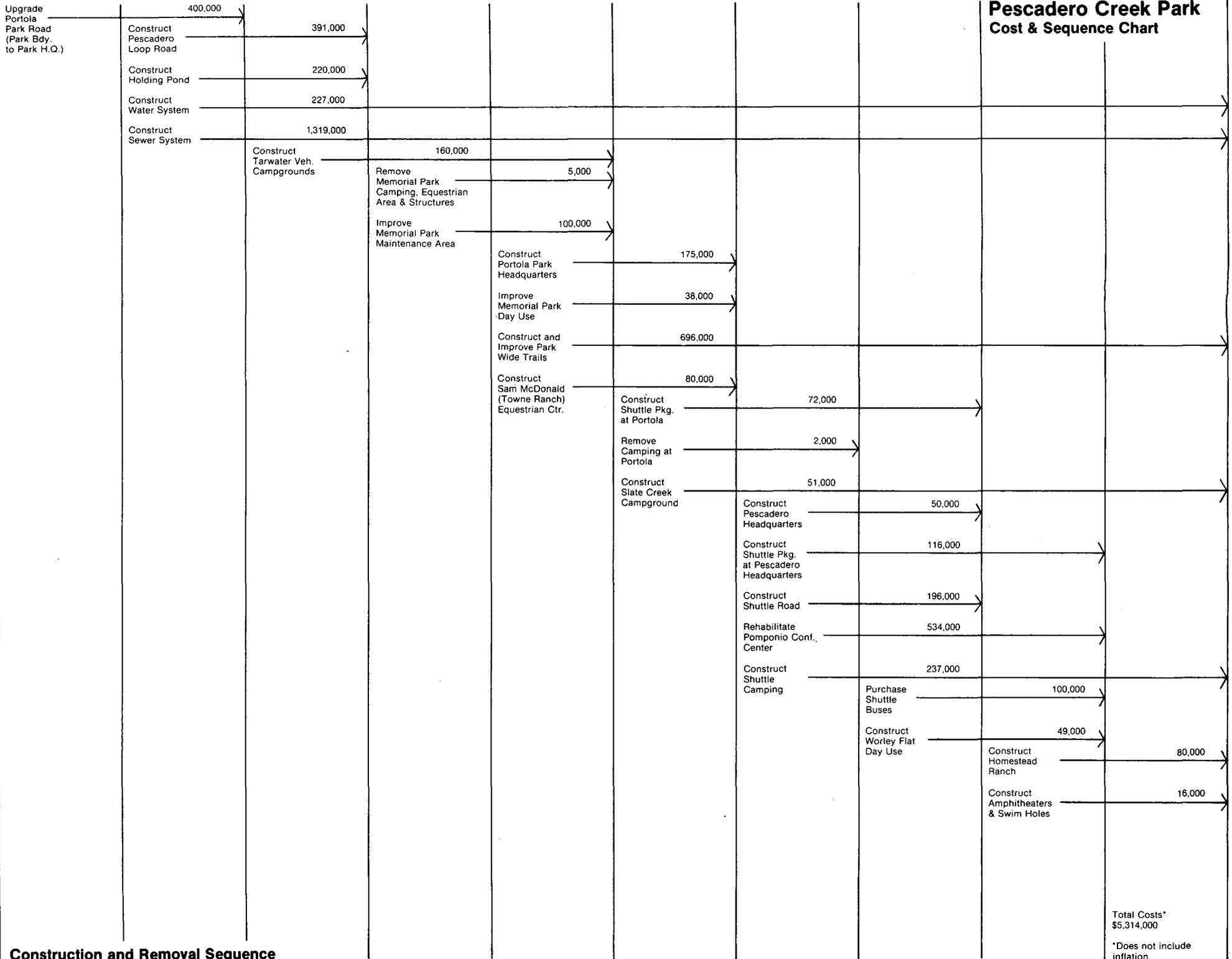
The general development plan identifies a water storage

site on Tarwater Creek, a tributary to Pescadero Creek. While the actual required capacity of this reservoir has not been identified, nor soil properties investigated in detail as required for dam construction, this type of facility will satisfy foreseeable water needs. The site identified appears to present few environmental problems as it would: 1) not involve any large redwood trees or groves; 2) only impound winter runoffs since Tarwater is an intermittent stream; 3) not negatively affect summer flow (seepage might even contribute to it); 4) not destroy any unique habitats and 5) provide for wildlife watering and an "edge" to increase wildlife diversity. It would be necessary to apply for additional water rights to impound water on this tributary stream. As it is an intermittent stream flowing only during periods of high flow, the acquisition of these rights appear to be easily attainable.

VII. Implementation

Plans become reality only through implementation of a comprehensive development program. Such a program ought to identify the major tasks to be undertaken toward the full development of a park area and must estimate conceptual costs associated with these steps. The following phasing chart, with costs, identifies work which must be accomplished, in a general order of priority. Flexibility in the number of campsites, roads, trails, and utility systems, along with other park amenities is necessary. Responding to the pressures of changing public policy, economic outlay must be dealt with as a reality. The phasing chart presented does not indicate a time frame; it does, however, suggest those tasks and subsequent studies, preliminary plans and working drawing packages which should be accomplished in order to provide a sound infrastructure for Pescadero Creek Park. A realistic appraisal of funds available for park development must be made each year in order to keep current such a phasing chart. These tasks and developments, commensurate with funding, can be accomplished in as short or as long a span of time as necessary to insure implementation. Conceptual estimates based on the plan presented in this report identify capital expenditures, over the life of the tasks represented on the chart, in today's dollars, as being approximately \$5 million.

The initial task in the implementation of the Pescadero Creek Park Master Plan should be upgrading the Portola Park Road from the park boundary to the headquarters. This should be done in order to provide for a safer road for vehicles. Completion of the loop road from Portola into Tarwater would be the next portion of implementation of the major road system. At the same time, studies on the water and sewer systems should commence, along with



Construction and Removal Sequence

first phase utility placement and followed by construction of the first public use facility, the Tarwater vehicular campground. At this point the entire park utility and transit infrastructure will be complete, allowing for subsequent construction of park facilities as funding and needs permit.

The next phase of work would involve the removal of camping, equestrian area and structures at Memorial Park and improvement of the Memorial Park maintenance area. This includes miscellaneous additions and at least one new shop building and new fencing for the area. At the end of this phase there would exist a refined park road system, a utility infrastructure including both water supply and sewer systems, and some vehicular campgrounds which can be serviced by the existing utility and road system. Additionally, there would exist maintenance areas at both Memorial and Portola which could service the entire park during the next several phases of construction. Next, improvements more visible to the general public would commence, including the construction of the Portola Park Headquarters, improvement of the Memorial day use areas, construction and improvement of the parkwide trails and construction of the Sam McDonald (Towne Ranch) equestrian center. At this point several day use and overnight facilities will be operational.

The next phase of development would include removal of camping at Portola and the construction of shuttle parking facilities. Construction of the Slate Creek campground would then be appropriate as an additional overnight use area. Subsequently, the construction of the Pescadero Headquarters and its associated shuttle parking as well as the shuttle road between the Portola and Pescadero headquarter areas can commence. At the same time the rehabilitation of the Pomponio Conference Center and the construction of shuttle camping can be completed. Thus, visitors to Pescadero Creek Park would now have an opportunity for both day use and overnight use of the entire park area including use of equestrian, bicycle, and pedestrian trails linking all areas of the park together.

The final two phases of implementation would include the purchase of shuttle buses and construction of Worley Flat day use areas and construction of the Homestead Interpretive Ranch and the amphitheaters and swimming holes associated with the camping area.

The master plan is not an end in itself. It serves as a tool for managers and planners to develop more finite plans. It presents public policy recommendations and acts as a guide to focus, in broad terms, what and where development should be, what types of support systems are necessary, and their interrelationships. The following is a list of studies and actions, in order of priority, which

should be accomplished prior to or during implementation of this master plan:

- A. Initiate funding requests for further planning and implementation of specific tasks identified in the master plan phasing chart.
- B. Develop detailed engineering studies for the development and upgrading of the internal utility systems to support the park.
- C. Implement highway improvements for the purposes of safety for that stretch of road between Alpine Road and Skyline Boulevard which will be a major access into the Pescadero Creek Park.
- D. Conduct transportation studies on the interpretive shuttle system, including research into low sensitivity methods of transportation, leading to testing and implementation of a final system.
- E. Implement a monitoring system focusing on key natural resources and social aspects of the visitor experience in Pescadero Creek Park. This will allow Management to detect and correct at an early stage, damage due to overuse or misuse of the resources.

Appendix A: Water Use Model

1. Projected Park Utilization*

Month	Weekdays	Weekends
January	10%	30%
February	10%	30%
March	20%	40%
April	20%	60%
May	40%	80%
Last week in May through first week in September.		
June		
July	80%	100%
August		
September	40%	80%
October	20%	40%
November	10%	30%
December	10%	30%

*As percentages of peak use.

2. Per Capita Design Flows

Residences and Conference Center	100 gpcd
Auto and Shuttle Camping	60 gpcd
Day Use	20 gpcd
Hike Camping	20 gpcd

3. Peak Flows

A. Overnight User	
Land Use	Acres
Auto Camping	40
Shuttle Camping	140
Homestead Group Camp	9
Walk-In Camping	30
Peak Utilization	
Auto Camping	
4 units/acre	
4 user/unit/day	
= 16 users/acre/day x 40 acres	= 640 users/day
Shuttle Camping	
2 units/acre	
4 users/unit/day	
= 8 users/acre/day x 140 acres	= 1,120 users/day
Homestead Group Camp	
42 units	
x 4 users/unit/day	= 168 users/day
Walk-In Camping	
2 units/acre	
4 users/unit/day	
= 8 users/acre/day x 30	= 240 users/day
Conference Center	
150 users/day including staff	
Residences in Parks	
Assume total of 8	
Peak Flows	
Auto & Shuttle & Group Camp	
(640 + 1120 + 168) users x 60 gpd/user	= 115,700 gpd
8 Residences x 400 gpd/residence	= 3,200 gpd
	<u>118,900gpd</u>
Walk-In Camp	
240 users x 20 gpd/user	4,800 gpd
Conference Center	
150 users x 100 gpd/user	15,000gpd
	<u>total 138,7000gpd</u>
B. Day Use	
Land Use	68 acres
Peak Utilization	
4 units/acre	
4 users/unit/day	
1.5 use factor/day	
1.5 x 4 + 6 users/unit/day	
6 x 4 = 24 users/acre/day	
24 users/acre/day x 68 acres	= 1,632 users/day
Peak Flow	
1,632 users/day x 20 gpd/user	= 32,600 gpd
C. Summary	
Overnight Use	138,700
Day Use	<u>32,600</u>
Total Peak Flow	171,300gpd

At 7.48 gallons per cubic foot, this converts to 22,900 cubic feet per day, or .27 cfs on a daily average basis

4. Projected Water Use

Month	Day Use	Monthly Flows		Average Over Month Flow, cfs.	Water Rights Granted to Parks, cfs.
	c.f./Mo.	Overnight c.f./Mo.	Total c.f./Mo.		
January	87,140	20,480	107,620	.04	.539
February	81,580	19,180	100,760	.04	.539
March	152,040	35,740	187,780	.07	.539
April	170,580	40,090	210,670	.08	.539
May	333,750	78,440	412,190	.15	.539
June	482,080	113,310	595,390	.23	.539
July	489,500	115,050	604,550	.23	.539
August	493,200	115,920	609,120	.23	.539
September	333,750	78,440	412,190	.16	.539
October	144,620	33,990	178,610	.07	.539
November	89,000	20,920	109,920	.04	.539
December	90,850	21,350	112,200	.04	.539

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