

UNIT 251

BALE GRIST MILL STATE HISTORIC PARK

GENERAL DEVELOPMENT PLAN (*)

November 1976

(*) Note: This unit's General Plan is contained within the joint general plan document for the Boethe-Napa Valley SP and the Bale Grist Mill SP



September 1976

State of California — The Resources Agency
DEPARTMENT OF PARKS & RECREATION

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BOTHE-NAPA VALLEY S.P. and BALE GRIST MILL S.H.P.

General Development Plan, Resource Management
Plan, and Environmental Impact Report

PRELIMINARY

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BOTHE-NAPA VALLEY S.P. and BALE GRIST MILL S.H.P.

Resource Management Plan, General Development Plan, and Environmental Impact Report

September 1976

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Governor
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Summary

Why a Plan?

1. Former plans, developed in the early 1960s, are outdated and do not consider Bale Grist Mill SHP and other recently acquired lands.
2. Existing problems, such as lack of facilities, unsafe vehicular access, and non-control of watershed lands, require immediate attention.
3. The existing park facilities are already operating at capacity during a large portion of the summer months and analysis indicates an increased recreational demand will be made on these park units in the future.

Goals of this plan are to:

1. Identify, protect, preserve, and interpret natural and cultural resources within the parks.
2. Determine the carrying capacities of the land within restrictions imposed by the environment.
3. Identify lands outside the parks that influence the environmental values and the quality of the recreational experiences within the parks.
4. Identify and solve existing park problems.
5. Provide a plan for the development of those recreational needs of the state that can be harmoniously accommodated at these particular park units.
6. Provide a guide for the sequence of developments of facilities.
7. Provide a general assessment of environmental impacts that proposed developments will have on the area.
8. Provide an informational document for the public, park personnel, the legislature, and local planning entities.

Plan Recommendations are:

1. That Bothe-Napa Valley SP and Bale Grist Mill SHP be combined under a single name, Napa Valley State Park, and that within this park, Bale Grist Mill and its associated structures and waterworks and the Pioneer Cemetery and White Church site be designated as state historic areas.
2. That additional recreation facilities be provided through a planned sequence of phased developments and that these facilities include:

a.	Family picnicking	----	125-175 units
b.	Group camping/picnicking	----	3 areas (max. 200 people each)
c.	Hike-in/Ride-in camp	----	1 area (max. 50 people)
d.	Family camping	----	150-175 units
e.	Equestrian staging area	----	1 area
f.	Hiking staging area	----	2 areas
g.	Program center	----	1 (75-100 people)
h.	Historical restoration	----	2 buildings

Note: Roads, trails, parking, restrooms, interpretive facilities, and service facilities to support the above public uses are also included in the development plan.

3. That two new and safer park entrances be located off Highway 29 and that a new park vehicular road be developed to provide an internal link between the new entrances as well as access to the developments within the park.
4. That, in addition to the 310 acres of funded lands that are presently under negotiation for addition to the state park lands, a 1/4-acre parcel of land adjacent to the proposed Larkmead entrance to the park be considered for immediate addition.
5. That the majority of the state park lands be managed as natural preservation, open space, and watershed protection lands and that private lands sharing the Ritchie Creek and Mill Creek watersheds be monitored to insure that they are managed in harmony with the neighboring park lands.
6. That the development of a possible biker/hiker hostel at the park be investigated and that potential trail links to Robert Louis Stevenson SP and Sugarloaf Ridge SP and a western inland link between the Ritchie Creek and Mill Creek watersheds be negotiated.



INTRODUCTION

What is the plan process and format?

What are the goals and objectives of the plan?

What are the parks being studied?

What is the extent of the area being studied?

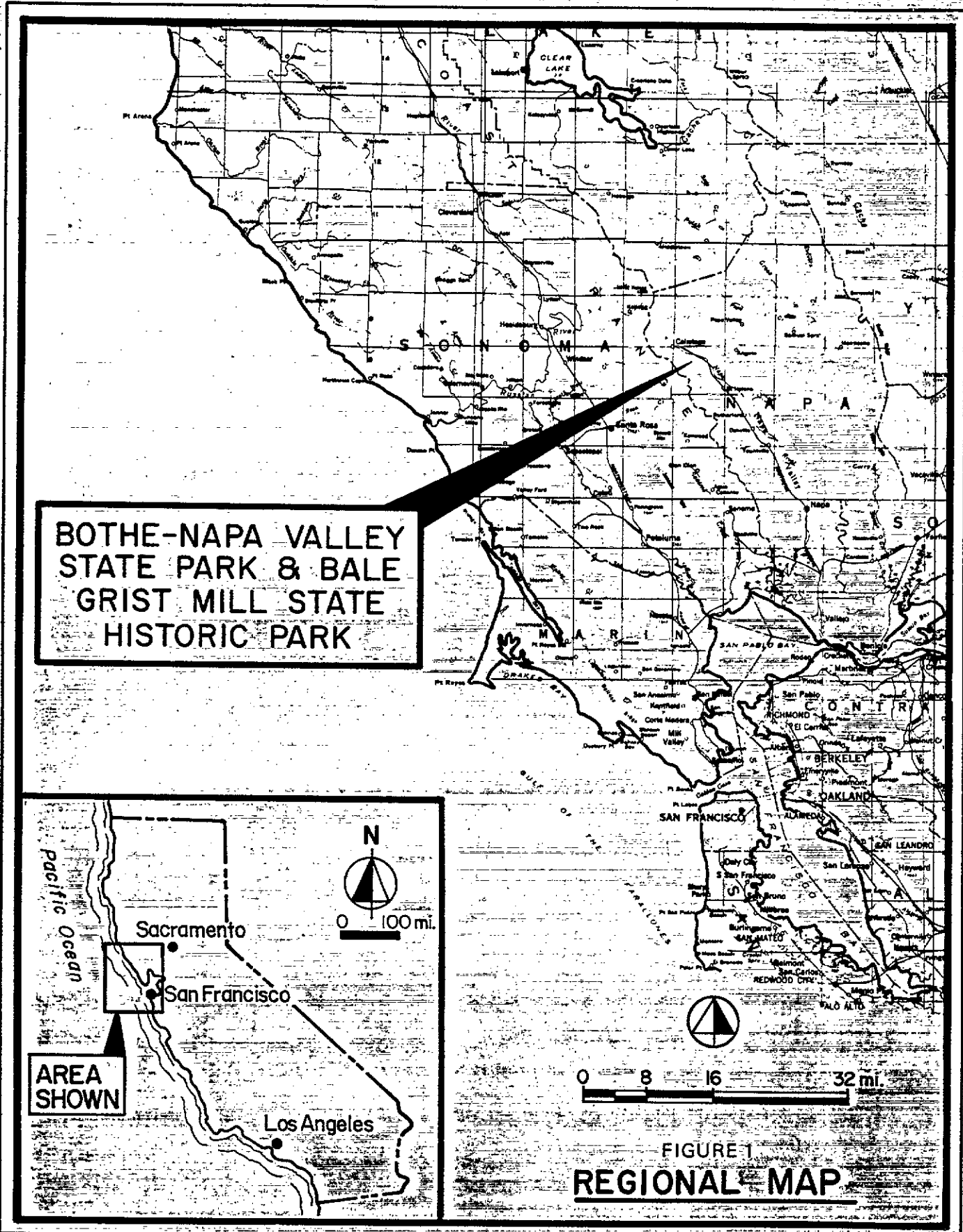


FIGURE 1
REGIONAL MAP

PLAN PROCESS AND FORMAT

The Public Resources Code provides that after each unit of the State Park System is classified, the Department of Parks and Recreation must prepare a general development plan and resource management plan for that unit. The Department must then submit the plans to the State Park and Recreation Commission for approval. It is the responsibility of the Commission to schedule a public hearing to consider such approval.

Unlike the majority of individual park plans presented to the Commission, the plan for Bothe-Napa Valley State Park and Bale Grist Mill State Historic Park is unusual in that it encompasses two individual units of the State Park System. Although once separated by private property, these units, through recent acquisition, are now contiguous and it is felt by the Department that the two parks should be planned together.

The plan encompassing Bothe-Napa Valley SP and Bale Grist Mill SHP is the result of the combined efforts of interested Napa Valley citizens, the Bothe-Napa Area Citizens Advisory Committee, Napa County public officials, and many professionals within the State Department of Parks and Recreation. The Bothe-Napa Area Citizens Advisory Committee, mentioned above, was selected by the Director of the Department to work closely with the Department's staff in the planning of the park units. The Advisory Committee's recommendations appear in Appendix A.

The plan is organized by general subject material into several major sections. Each section divider lists the major questions to be covered in that particular section. The major heading within the body of each section corresponds to a question that was raised at the beginning of the section. Under each major heading, a sentence in italics summarizes the topic. The italicized summary is followed by a more detailed discussion of the topic. It is hoped that this format will allow the reader who has limited time to skim the document and obtain a general understanding of the content.

It should be noted that the Department does not intend the following plan to be a static, inflexible document but rather a dynamic planning tool for future development of the park units. It should be reviewed prior to any new development proposal, and updated to insure its accuracy and relevance.

GOALS AND OBJECTIVES

The goals and objectives of this planning process are to produce a plan that will provide for the development of diverse recreational facilities with concern for the protection of natural and cultural values, and will also provide an informational document for public use.

The Plan will:

1. Identify and provide for the management, protection, preservation, and interpretation of the natural and cultural resources within these units.
2. Determine the maximum carrying capacity of the lands within the plan's primary area of interest and insure that facilities planned are in balance with these capacities.
3. Determine possible environmental impacts of the general development plan as well as alternatives to the plan.
4. Identify lands outside of the existing park boundaries that are of prime concern to present and future environmental values and recreational needs of the park units.
5. Identify and attempt to solve the existing problems at these park units.

6. Provide diverse recreational opportunities for the people of California, with special emphasis on the needs of the urban populations within a two-hour travel time to the park.
7. Provide a guide for the sequence of the development of facilities.
8. Serve as an informational document for the public, park personnel, the legislature, and local planning entities.

LOCATION

Bothe-Napa Valley SP and Bale Grist Mill SHP are located in Napa County in the heart of the Napa Valley wine country.

The park units, jointly comprising approximately 1,680 acres, are situated on the eastern slope of the Mayacamas Mountains between the upper Napa Valley towns of Calistoga and St. Helena. While Bale Grist Mill SHP occupies only a small area of land along the western edge of the valley floor, Bothe-Napa Valley SP encompasses a large segment of the western valley slope, extending from the edge of the valley floor to the top of the western mountain ridge (The Napa-Sonoma county line). A small portion of Bothe-Napa Valley SP extends over the ridge and into Sonoma County.

The existing park entrances are located off State Highway 29. The western highway right-of-way delineates the eastern boundary of both park units.

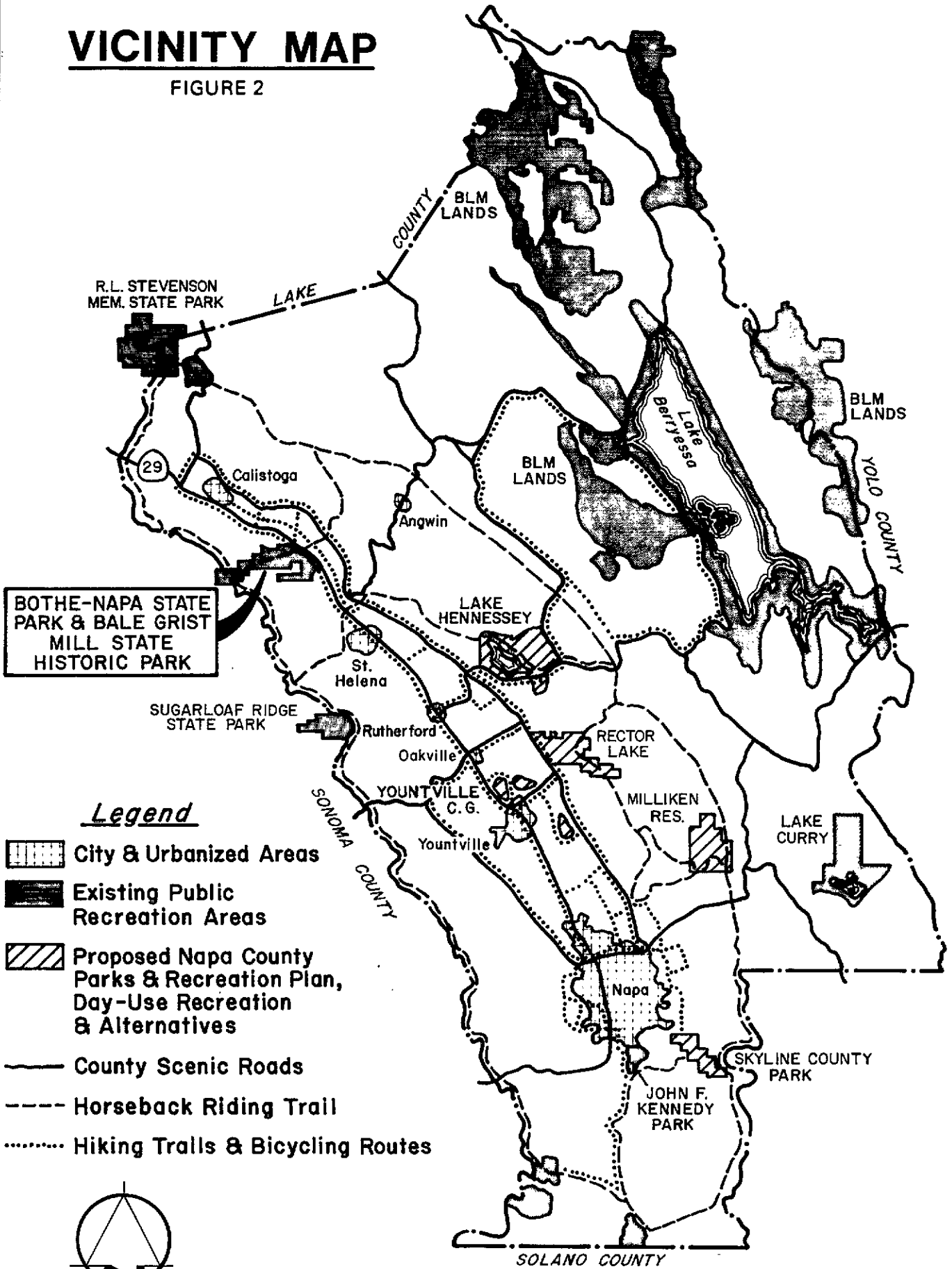
The Regional Map, Fig. 1, indicates the general location of the park units and shows their close proximity to the heavily populated San Francisco Bay Area. The Vicinity Map, Fig. 2, shows the location of the park units within Napa County and their relationship to other existing public recreation areas and to proposed county recreational facilities.



Valley floor vineyard







VICINITY MAP

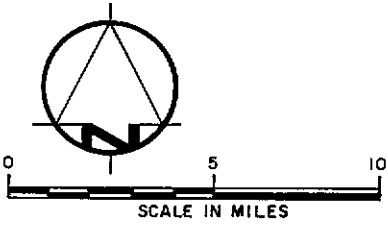
FIGURE 2



BOTHE-NAPA STATE PARK & BALE GRIST MILL STATE HISTORIC PARK

Legend

-  City & Urbanized Areas
-  Existing Public Recreation Areas
-  Proposed Napa County Parks & Recreation Plan, Day-Use Recreation & Alternatives
-  County Scenic Roads
-  Horseback Riding Trail
-  Hiking Trails & Bicycling Routes



STUDY AREA

The Study Area referred to throughout this report consists of those lands comprising the Ritchie Creek and Mill Creek watersheds and a few small portions of existing and proposed state park lands that fall outside of these watersheds (see Study Area, Fig. 3).

The study area is a comprehensive planning unit consisting of land that affects or potentially affects the management and protection of the environmental, cultural, and recreational resources that are presently found within Bothe-Napa Valley SP and Bale Grist Mill SHP. These resources and the possible effects that privately managed lands within the same watershed could potentially have upon some of these resources are discussed in the "Resource Inventory and Analysis" chapter of this report.

The study area, however, should not be interpreted as an area that should all be acquired by the State Park System but rather as an area of management concern. It is felt that through proper enforcement of existing county planning and zoning restrictions and erosion control regulations, the private lands within the study area can be privately managed in harmony with the neighboring state park lands.



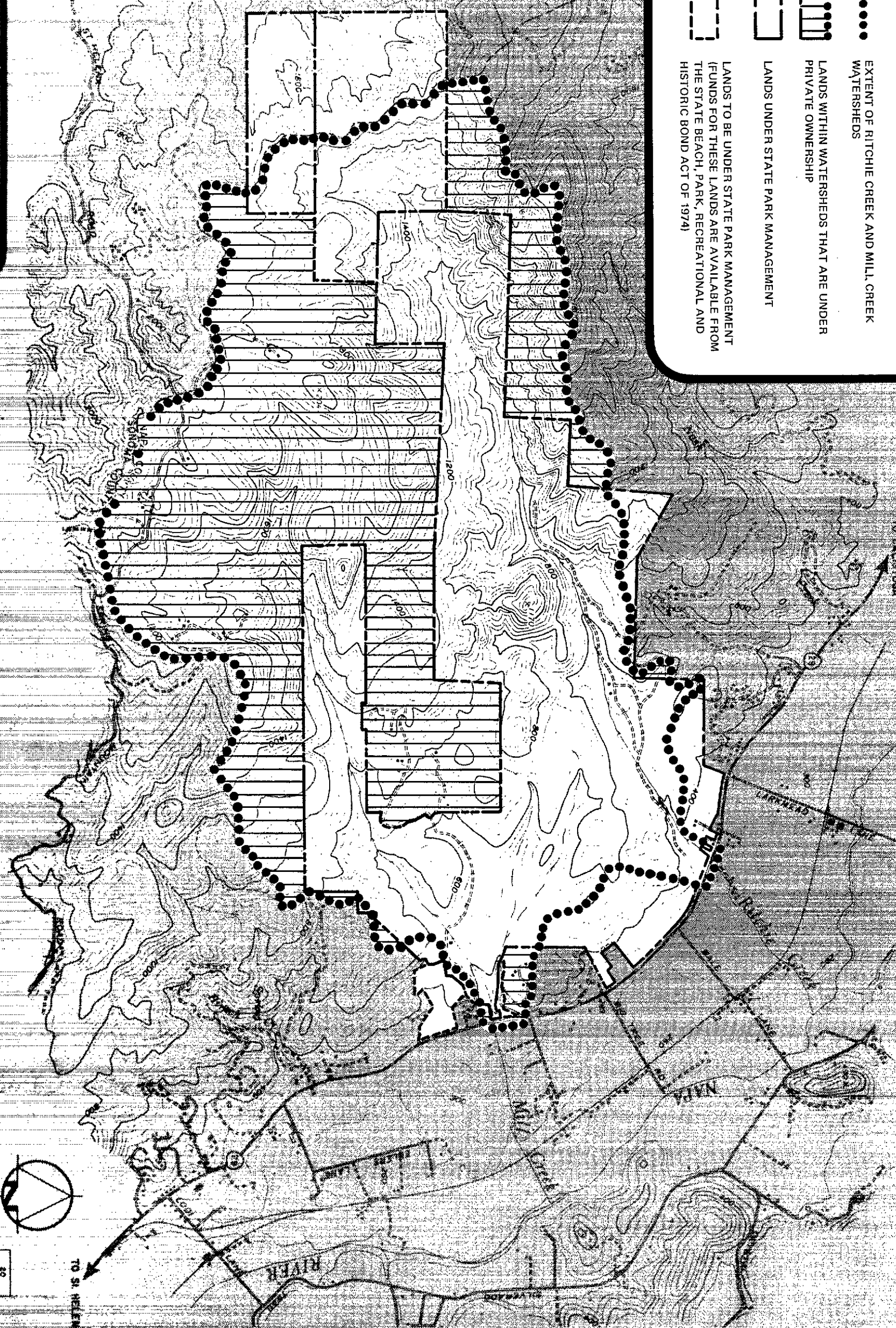
California Poppy

LEGEND

FIGURE 3

- EXTENT OF RITCHIE CREEK AND MILL CREEK WATERSHEDS
- ▨ LANDS WITHIN WATERSHEDS THAT ARE UNDER PRIVATE OWNERSHIP
- ▭ LANDS UNDER STATE PARK MANAGEMENT
- - - - LANDS TO BE UNDER STATE PARK MANAGEMENT (FUNDS FOR THESE LANDS ARE AVAILABLE FROM THE STATE BEACH, PARK, RECREATIONAL AND HISTORIC BOND ACT OF 1974)

STUDY AREA



BOTHE-NAPA VALLEY STATE PARK & BALE GRIST MILL STATE HISTORIC PARK

STUDY AREA

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION

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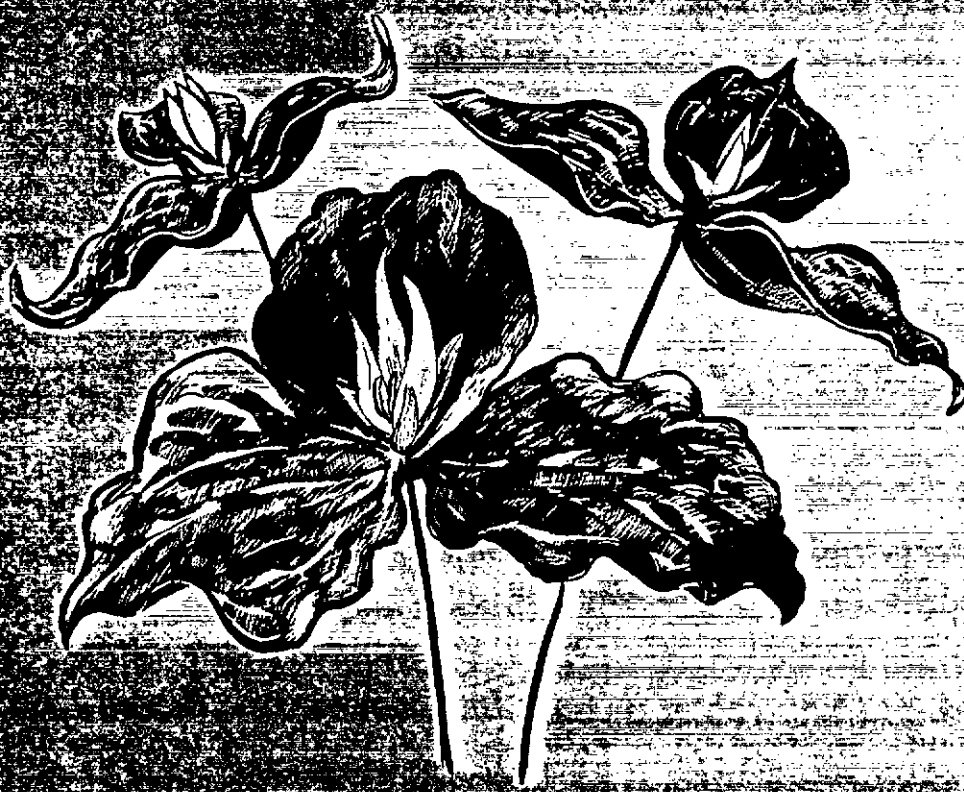


RESOURCE INVENTORY AND ANALYSIS

What are the natural resources?

What are the cultural resources?

What are the recreational resources?



Trillium

Natural Resources

What is the climate?

What is the geology?

What are the soils and what restrictions do they impose upon development?

What is the slope differential and how does it affect potential development?

What is the surface hydrology?

What are the plant communities of the area?

What is the wildlife of the area?

What are the scenic resources at the park units?

PHYSICAL FEATURES

Climate

The Napa Valley enjoys a typical mediterranean climate (warm, dry summer days with cool, often foggy, evenings and mild, wet winters). However, the park units experience greater climatic variations than the majority of the Napa Valley because of their upper valley locations and Bothe-Napa's varied topography.

Although Napa Valley's climate can be summarized as "mediterranean," local topography and distance from the San Pablo Bay cause distinct micro-climatic regions of significance to vegetation, agriculture, and human occupancy. The broad opening of the Napa Valley onto the bay permits marine breezes and summer fog to enter the lower valley, but, at the head of the valley, where the parks are located and on the mountain slopes, other influences cause different patterns of temperature and rainfall.

Altitude, in general, affects temperature. This is true of the higher elevations of the mountains overlooking Napa Valley but is not true of the foothills and lower slopes which are within a thermal belt. As might be expected, the highest temperatures in the Napa Valley have been recorded on the valley floor at the head of the valley, which is farthest from the marine influence. Freezing temperatures, however, have been recorded in all parts of the valley.

The general pattern of winds in the Napa Valley is one of southwest winds in the southern part, becoming more westerly in the north. Cyclonic storms also approach from the southwest, and

Valley fog



these account for most of the precipitation in the valley. A zone of higher rainfall is found on the western side of the valley, missing the city of Napa but including Yountville. A second zone of higher rainfall is apparent on the eastern slopes of the Mayacamas Mountains. The study area is within this second zone. These two zones converge at the head of the valley, near Calistoga.

More than 70 percent of the rainfall in Napa County falls between December and March, and only 3 percent falls between June and September. Annual rainfall totals vary according to location: 22-23 inches at Napa, 36-37 inches at Calistoga, 44-46 inches at Bothe-Napa Valley State Park and Bale Grist Mill State Historic Park, and 59-60 inches at Mount St. Helena.

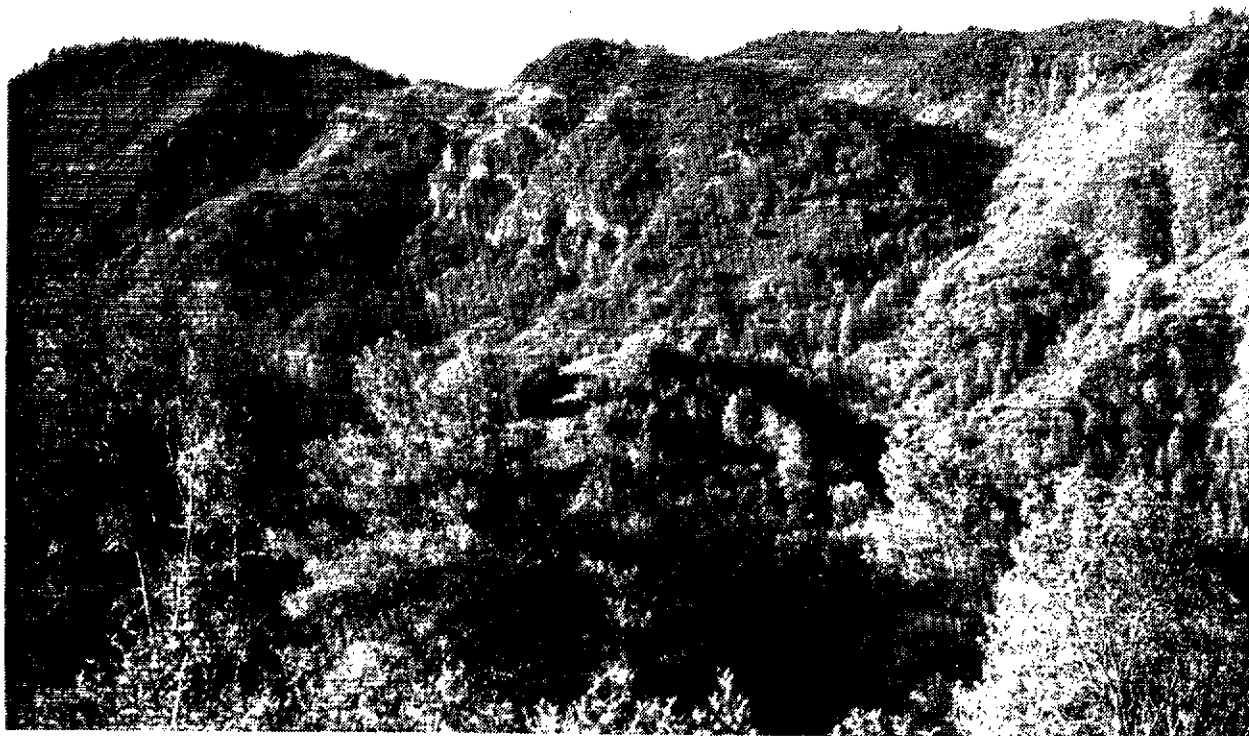
Largely because of their locations, Bale Grist Mill SHP and the portion of Bothe-Napa Valley SP adjacent to Highway 29 experience relatively mild climates very similar to the upper Napa Valley floor. As previously mentioned, however, the upper valley climate encounters less of the moderating marine influences that contribute so heavily to the mild climate of the lower valley. In addition, because Bothe-Napa Valley SP extends up to the Mayacamas ridge, its climate is also affected by the extreme changes in elevation and landform. These factors cause a wider variation in temperature in the unit's overall micro-climate than is found in the valley floor. January lows tend to produce more severe frosts in the upper park and significant snowfalls have periodically occurred within the unit.

Geology

The Napa Valley is basically an alluvium-filled synclinal trough. The east-facing slope of this trough, upon which the park units lie, is primarily characterized by more recent volcanic material underlain with early sedimentary deposits.

All of Napa County and the surrounding region is underlain with sedimentary rock formation. This rock was formed from great marine sediments laid down during the Jurassic through Miocene Epochs (see chart, p.15), while Napa County lay beneath the primordial sea. Most of the sedimentary rock exposed in Napa County is sandstone, although there are also silts, cherts, limestones, and conglomerates. During the period of sedimentation, there were intrusions of basalt and diabase. Most of these intrusions were metamorphosed, and the most common metamorphic rock of this group is serpentine. Serpentine is important in soil formation and mineralization, and soils formed from it usually support only shrubby-type vegetation because of the high magnesium content of this rock.

View toward Mayacamas Ridge



GEOLOGIC FORMATIONS IN THE NAPA VALLEY

Geologic Epoch	Formation	Character of rock
Recent	Younger valley alluvium	Interbedded sands, clays, gravels, and reworked tuffaceous materials deposited largely as alluvium.
Pleistocene	Montezuma formation	Obscurely stratified gravels, sands and clays; terraces.
	Huichica formation	Elevated terrace deposits composed of poorly stratified gravels, conglomerates, sands and clays, nonmarine.
Miocene	San Pablo Group	Interbedded coarse-grained massive bluish gray sandstone, marine.
	Monterey	Massive and bedded brownish gray sandstone and sandy shale, marine.
Oligocene	San Ramon Sandstone	Light gray sandy shale and interstratified fine-grained sandstone and conglomerate, marine.
Eocene	Domengine Sandstone	Massive medium-grained cross-bedded sandstone, marine.
	Capay Shale	Brownish gray thinly bedded clay shale and mud-stone, marine.
Jurassic	Knoxville	Sedimentary strata, largely marine.
	Franciscan Group undifferentiated sandstones	Massive poorly stratified medium to coarse-grained arkosic sandstone.
	Metamorphic rocks	Derived from sedimentary and igneous rock, primarily serpentine.

During Pliocene times the Napa region was raised from beneath the sea and was subjected to great volcanic activity that resulted in the covering over of the existing sedimentary formations. At that time, the Howell and Mayacamas mountains, which now border the east and west sides of the Napa Valley respectively, were covered by layers of volcanic rock, hundreds of feet thick.

Toward the end of the volcanic period, the geologic process of folding increased and the Mayacamas Ridge (or anticline) and the Napa Valley were formed. Through thousands of years of weathering the layers of volcanic rock have been eroded to form ridges and streams and in places to expose the underlying layers of sedimentary rock. The process of erosion, which accompanied the period of uplift, filled the valley floor with the present-day alluvial materials.

Mineral resources, important in the history of Napa County and the Napa Valley, are found associated with both the sedimentary and volcanic formations. These minerals include limestone, coal, manganese, serpentine, silver, obsidian, perlite, sulphur, gold, quicksilver, sand, and gravel.

Because of this abundance of minerals, mineral springs, both thermal and non-thermal, are found in many places in the Napa Valley. Some of these have been used commercially as baths and as a source of bottled mineral water.

It might be beneficial to identify how the land occupied by the park units fits into the overall geologic picture of Napa Valley (see Geologic Map, Fig. 4). Bothe-Napa Valley State Park is primarily situated on igneous, pyroclastic rock within a Pleistocene volcanic formation. The pyroclastic rocks in this formation are composed of tuffs, tuff breccias, agglomerates, water-laid sands, gravels, diatomaceous clays and silts, minor pumice and perlite, and interbedded flows of the Sonoma volcanics. In contrast, Bale Grist Mill State Park at the base of Mill Creek, and the existing developed area at Bothe-Napa Valley SP, located on Ritchie Creek, are primarily areas of sedimentary alluvial materials, outwashed from areas of rhyolitic rocks.

Two small units of Franciscan formation are found within the upland portion of Bothe-Napa Valley SP. The Franciscan formation usually includes graywacke, shale, conglomerate, chert, minor lenses of limestone, and glaucophane schists and related metamorphic rocks. These particular formations at the park unit may also include basalt, greenstone, and diabase, or peridotite and dunite bodies. The general lack of forest cover on these areas indicates that they are probably largely serpentinized.

The rock types and formations found within the park units are indicative of the turbulent geological past of the Napa Valley. Today, however, the volcanic activities that once characterized the Coast Range building processes seem no longer to be a potential source of danger to valley visitors and inhabitants. The area is considered to be relatively safe from seismological earthquake disturbances. No major fault zones have been identified within the park units. The Mayacamas Fault zone in Sonoma County lies directly over the Mayacamas Mountain Ridge from Bothe-Napa Valley State Park, but it has been inactive during recent times. The last significant active disturbance (showing quaternary displacement) in the vicinity of the park units occurred in October 1969, along the Healdsburg and Rodgers Creek faults, which are located approximately 10 miles east of Bothe-Napa Valley State Park. As a result of this seismic activity, a maximum intensity of 5 was recorded in nearby Calistoga, but no significant damage or injuries were reported at Bothe-Napa Valley State Park.

Geologic Values

Primary geologic values within the study area which should be preserved and interpreted are the scenic rock cliffs in the upper northeast section of the Ritchie Creek Watershed and the sheer canyon walls and small waterfalls that enhance the beauty of a portion of the upper Mill Creek watercourse (see Geologic Map, Fig. 4).

Soils

While Bale Grist Mill SHP is situated on permeable, lowland soils, generally suitable for development, most of Bothe-Napa Valley SP lies upon shallow, rocky, highly erodible upland soils and rough mountainous land, generally unsuitable for development (see Soils Map, Fig. 5).

MAJOR SOIL GROUPS

The major soil groups may be summarized as follows:





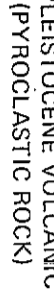

Lowland Soils

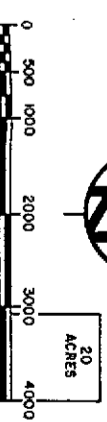
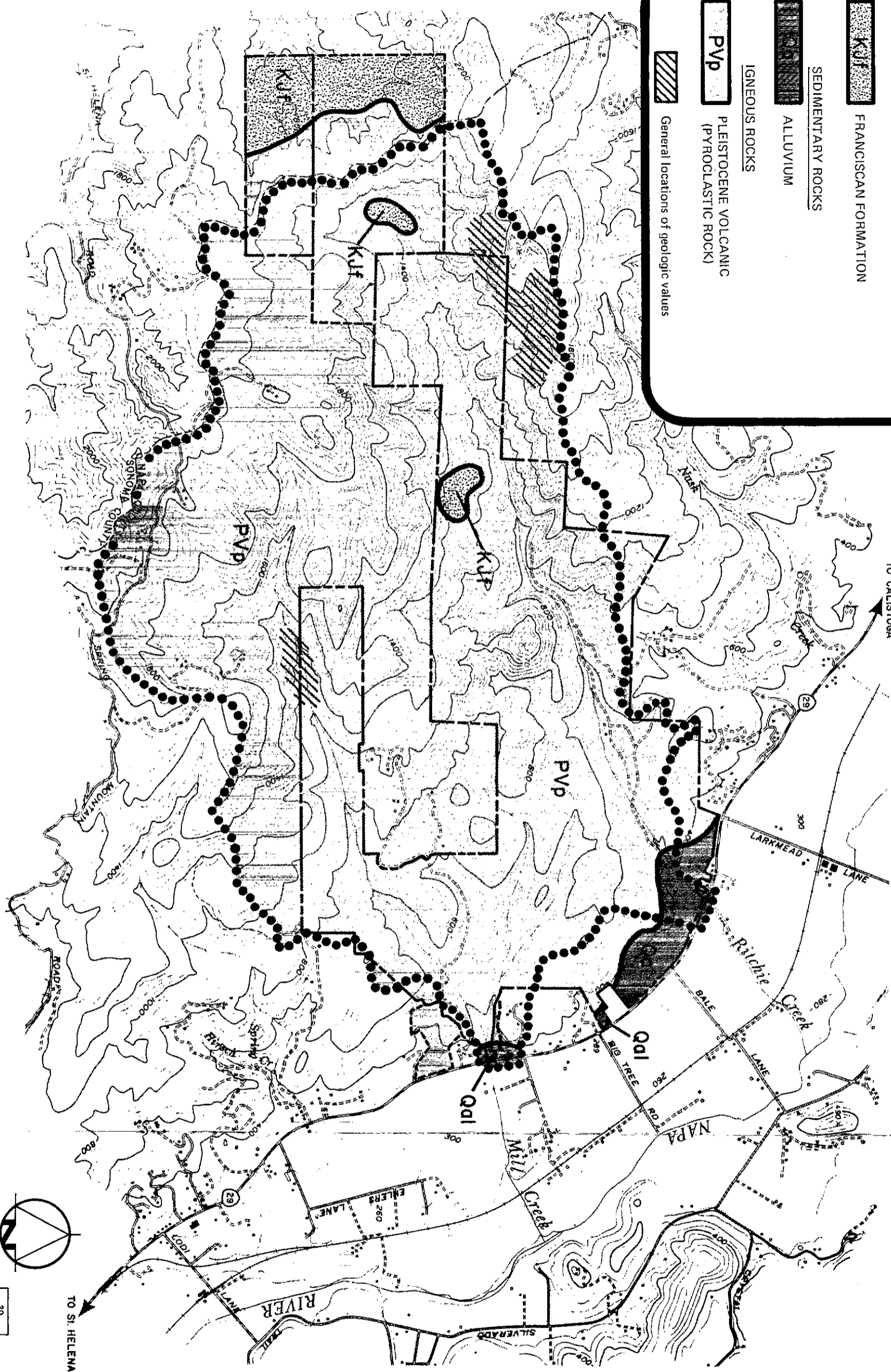
The soils of the lowlands found within the study area are primarily Bale loam with a very small area of Bear Creek clay loam.

Bale loam (B1) — Although once covered with oak, pine, and brush, the areas of Bale loam soil are practically all under cultivation today. One of the more important agricultural soils of the Napa Valley, Bale loam contains moderate amounts of organic matter and is friable and easily cultivated. The subsoil, despite its compactness, is readily penetrated by plant roots, air, and moisture. In the park units, 10-25 percent of the Bale loam soil mass is composed of more or less rounded water-worn gravel. Bale Grist Mill SHP is located entirely upon Bale loam.

LEGEND

FIGURE 4

-  FRANCISCAN FORMATION
-  SEDIMENTARY ROCKS
-  ALLUVIUM
-  IGNEOUS ROCKS
-  PVP
PLEISTOCENE VOLCANIC
(PYROCLASTIC ROCK)
-  General locations of geologic values



GEOLOGIC MAP

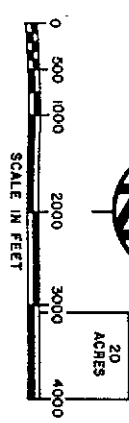
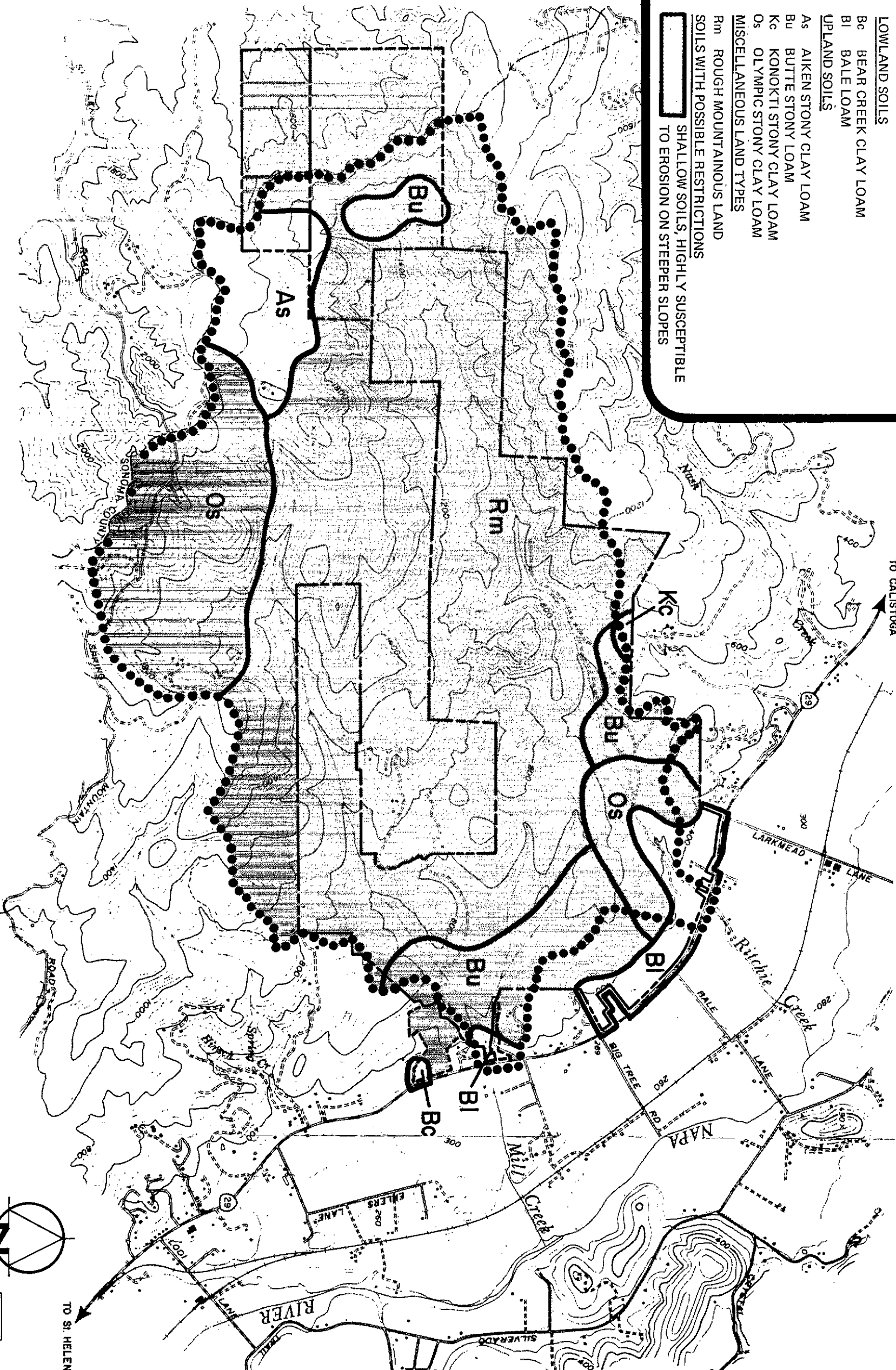
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SOILS MAP

LEGEND

- LOWLAND SOILS**
- Bc BEAR CREEK CLAY LOAM
 - Bl BALE LOAM
- UPLAND SOILS**
- As AIKEN STONY CLAY LOAM
 - Bu BUTTE STONY LOAM
 - Kc KONOKTI STONY CLAY LOAM
 - Os OLYMPIC STONY CLAY LOAM
- MISCELLANEOUS LAND TYPES**
- Rm ROUGH MOUNTAINOUS LAND
- SOILS WITH POSSIBLE RESTRICTIONS**
- SHALLOW SOILS, HIGHLY SUSCEPTIBLE TO EROSION ON STEEPER SLOPES

FIGURE 5



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	SOILS MAP		DEPARTMENT OF PARKS AND RECREATION	
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Bear Creek Clay Loam (Bc) – This soil is primarily used for pasture and only a few small areas are under cultivation. The surface soil of Bear Creek clay loam breaks into coarse clods when plowed and is difficult to reduce to a granular tilth. In uncultivated areas the soil is hard and baked but, once moist, it absorbs water readily and has a good water-holding capacity. Its subsoil is tight and compact and generally of clay texture.

Upland Soils

The soils of the uplands found within the study area are primarily Butte stony loam with smaller areas of Olympic stony clay loam, Konokti stony clay loam, and Aiken stony clay loam.

Butte stony loam (Bu) – Very little of this soil is under cultivation; the major portion is heavily forested with oaks, fir, and pine, with many thick stands of redwood in the cooler moist areas. The surface soil of Butte stony loam is a gray stony loam, friable and granular, and low in organic matter. It is underlain by a thin subsoil and shallow bedrock. Angular stones and granular particles, as well as fragments broken from the parent rhyolitic rock, occur throughout the soil mass and the surface is broken in many places by outcrops of the underlying bedrock. This soil is very susceptible to erosion, and care must be taken to prevent destructive washing. For this reason, steeper areas should be left in forest.

Olympic stony clay loam (Os) – As is the case with Butte stony loam, very little Olympic stony clay loam is under cultivation and most of it is forested with oaks, fir, and pine. Its surface soil is dull brown, friable and granular clay loam with a thickness ranging from 7 – 10 inches. A variable amount of basaltic and andesitic stone and small rock fragments occur in its surface soil and subsoil. Like the Butte stony loam, this soil erodes easily, and the steeper areas should be left in forest.

Konokti stony clay loam (Kc) – Another rarely cultivated soil, Konokti stony clay loam is forested under virgin conditions and supports very little grass. Its surface soil has a moderately heavy texture and is low in organic matter. The presence of bedrock at a relatively shallow depth limits its water-holding capacity and its use for deep-rooted crops. The soil is better developed, as a rule, on the flatter areas of mountainous relief in which drainage is established, but on comparatively small areas on steep slopes, the soil is thinner, averaging little more than 24 inches and outcrops of bedrock are numerous. The run-off and natural erosion in these steeper areas are relatively rapid, so these areas should be left under virgin cover.

Aiken stony clay loam (As) – Unlike the other upland soils of this area, approximately 50 percent of the Aiken stony clay loam is under cultivation. Under virgin conditions, it is forested or brush covered and affords rather poor grazing. Its granular surface soil is red or dark red, and angular basalt or andesite stone and other small fragments occur throughout the soil mass. Subsurface bedrock limits the rooting zone of plants in the soil and consequently, it is better adapted to shallow-rooted plants. This soil does, however, absorb moisture rapidly and, for this reason, it is less apt to erode than many of the other upland soils.

Miscellaneous Land Type

The soil of this group within the study area consists of undifferentiated soil materials and is found in areas that are predominately too steep, too broken, and occupied by too shallow and too stony soil materials to be of agriculture value. The miscellaneous land type found within the study area is referred to as rough mountainous land.

Rough mountainous land (Rm) – Rough mountainous land is primarily used for forestry or grazing. In general, the various soils in these mountainous areas are much shallower over bedrock than in areas less subject to erosion. Most of this land also contains more stones, and,

if cleared of vegetation, will usually erode very rapidly. Over three-fourths of Both-Napa Valley SP is comprised of rough mountainous land.

From the summary given above, some general assessments can be made of the suitability of certain soils for the development of facilities such as campgrounds, roads, and structures. Major developmental considerations are the soil's leaching capacity, compaction characteristics, erodibility, shrink-swell factor, and ease of grading.

Considering these factors, it appears that the lowland soils group is the most suitable for development. The soils in this group have a sufficient ability to leach. (The present restroom facilities at both park units are serviced by leach fields located in Bale loam.) In addition, their compact subsoil, good drainage, low erodibility, and ease of grading are all favorable developmental characteristics. On the other hand, the shrink-swell factor of these soils is unknown and may prove to be unfavorable.

With the exception of Aiken stony clay loam, the upland soils are generally unsuitable for development. Due to their shallow depth and poor drainage, they do not leach well. (1963 percolation tests made in Olympic stony clay loam in the vicinity of lower Ritchie Creek within Bothe-Napa Valley SP indicated that the soil in that area was unsuitable for leaching.) In addition, the shallowness and high erodibility of these soils necessitates that any structural foundations be taken down to bedrock, thus increasing building costs. Although the shrink-swell factor of the upland soils is probably not a limiting factor, the shallow occurrence of bedrock and occasional rock outcroppings might hinder grading and necessitate realignment of facilities.

It should be emphasized that the above are general assessments and more detailed field survey work in conjunction with a slope analysis will be made to determine the suitability of a particular type of facility to a specific site within a proposed project area.

Slope

The major portion of the land within the study area lies on the east slope of the Mayacamas Mountains and is too steep for intensive development of facilities.

The topography within the study area ascends from an elevation of approximately 300 feet on the valley floor to approximately 2200 feet on the Mayacamas ridge. With the exception of the existing developed area at Bothe-Napa Valley SP and a few isolated benches, ridge tops, and creek beds, there are very few areas west of Highway 29 and within the study area that are gently sloped (see Slope Map, Fig. 6). Most of the land is steep, with gradients of over 10 percent and, therefore, is unsuitable for intensive development. (Construction in areas of steep slope is generally more expensive, inaccessible, difficult, and more detrimental to the environment than building on areas of gentle slope.) The steeper areas of the project should be reserved for minimum use development, such as hiking trails; however, if access can be provided, some of the isolated flat areas might be used for group and/or primitive camping.

Most of the gently sloped land within the study area is located on the Napa Valley floor, adjacent to and west of Highway 29, upland near Ritchie Creek in the vicinity of the existing service building, and near Mill Creek along Lyman Canyon Road. This land is relatively flat and is suitable for development of facilities such as roads, camping spurs, restrooms, and administrative and service structures.



Harvest Brodiaea

SLOPE MAP

LEGEND



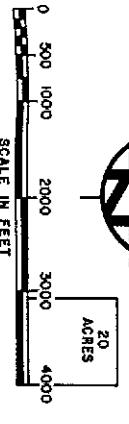
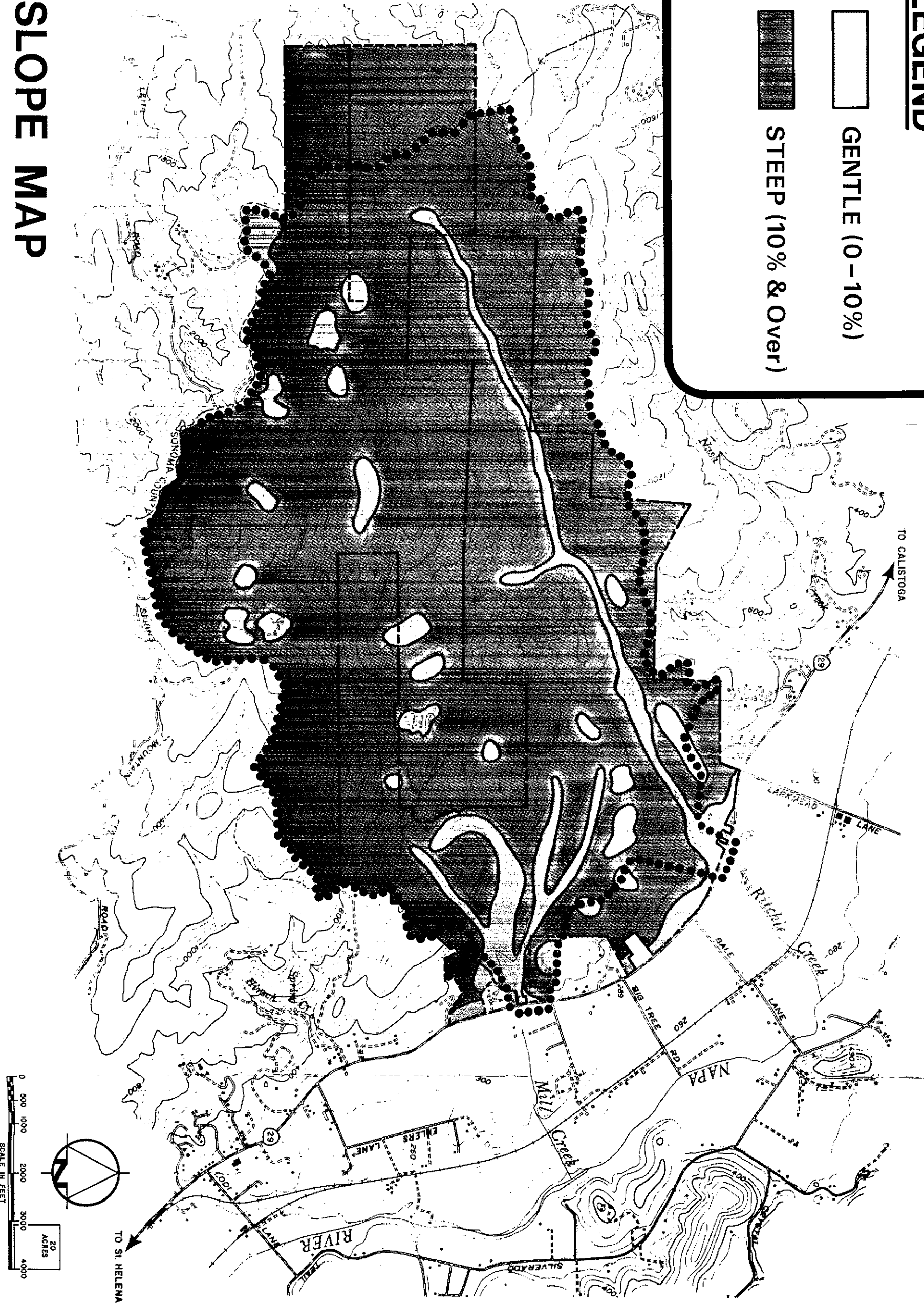
-  GENTLE (0 - 10%)
-  STEEP (10% & Over)

FIGURE 6



TO ST. HELENA

TO CALISTOGA

DRAWING NO. 15038	BOTHE-NAPA VALLEY STATE PARK & BALE GRIST MILL STATE HISTORIC PARK	RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION	REVISIONS	DATE	DESIGNED
			APPROVED _____	DATE _____	DRAWN JUNE 1976 CHECKED
SHEET NO. OF	SLOPE MAP				



MAYACAMAS RIDGE



RITCHIE CREEK

EXISTING ENTRANCE
TO BOTHE-NAPA VALLEY S.P.

VALLEY FLOOR

NAPA RIVER

Surface Hydrology

The main components of the surface hydrology of the Napa Valley are the Napa River and its tributaries. Two of these tributaries, Ritchie Creek and Mill Creek, have a major influence upon the park values at Bothe-Napa Valley SP and Bale Grist Mill SHP, and for this reason, it is important that the watersheds of these two creeks be carefully studied, monitored, and protected.

The Napa River has its origins at the foot of Mount St. Helena. It flows southward for forty miles along the floor of the valley and eventually empties through the sloughs and the salt marshes of the delta area into San Pablo Bay. The Napa River watershed (within which Bothe-Napa Valley SP and Bale Grist Mill SHP are located) comprises 242,900 acres, all contained within Napa County.

There are no natural lakes in Napa County and the most notable geographic feature in the eastern part of the county is Lake Berryessa, a large man-made lake formed behind Monticello Dam. (The Lake Berryessa area presently provides 99 percent of the camp units, and 98 percent of the picnic tables available in Napa County.) Monticello Dam was built largely in response to the need for water storage and flood control. A lack of snow to store moisture for the summer months and a high concentration of rainfall during the winter months contribute to the great variation in water flow in the rivers and streams of Napa County; many almost disappear in late summer, yet reach flood stages in the winter months.

This flow variation is typical of the two creeks that have the largest influence on the park units, Ritchie Creek and Mill Creek (see Surface Hydrology, Fig. 7), but they do remain active year round. However, during dry summers minor tributaries to these two major creeks cease to flow.

Largely because of this irregularity of flow, Mill Creek was dammed in the mid-1800s and a "holding pond" was created. Creek waters were then channeled through a redwood flume to power the mill structure at Bale Grist Mill SHP. Mill Creek is no longer dammed but the remains of the "holding pond" still can be seen. Most of the Mill Creek watershed is in private lands, but the State Department of Parks and Recreation has recently acquired a portion of watershed containing most of the original waterworks for the Bale Mill. The Department hopes eventually to recreate the historic water system that once powered the mill wheel.

Ritchie Creek

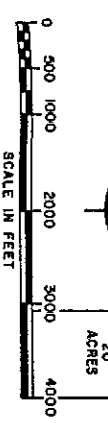
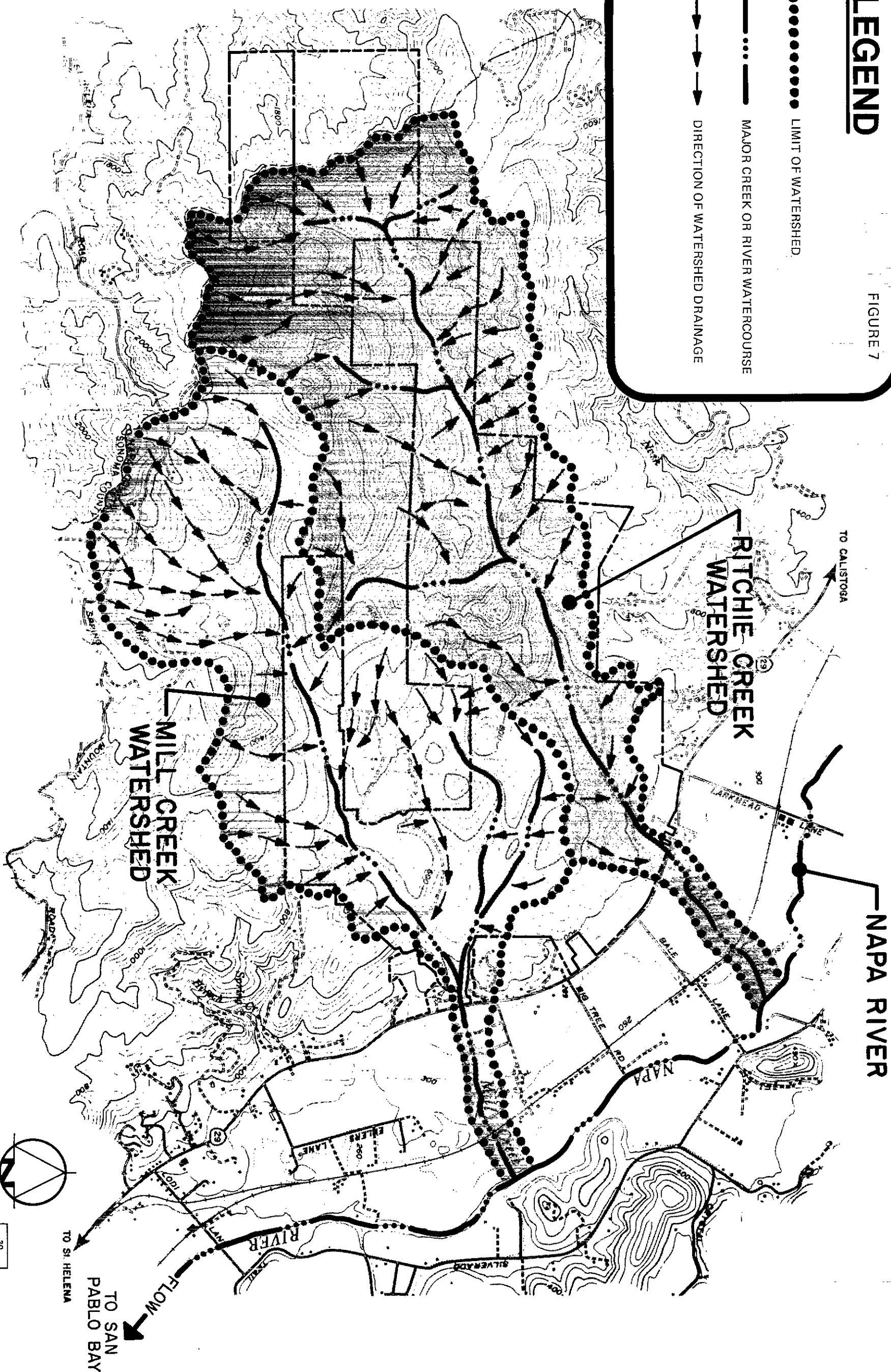


LEGEND

FIGURE 7

- LIMIT OF WATERSHED
- MAJOR CREEK OR RIVER WATERCOURSE
- DIRECTION OF WATERSHED DRAINAGE

SURFACE HYDROLOGY



DRAWING NO. 15038	BOTHE-NAPA VALLEY STATE PARK & BALE GRIST MILL STATE HISTORIC PARK	RESOURCES AGENCY OF CALIFORNIA		DESIGNED
		DEPARTMENT OF PARKS AND RECREATION		DRAWN JUNE 1976
SHEET NO.	SURFACE HYDROLOGY	APPROVED _____	DATE _____	CHECKED



Mountain vineyard

Nearly all of the Ritchie Creek watershed is contained within Bothe-Napa Valley SP, but the portion outside the park should be carefully managed by its private owners to avoid the destruction of the natural environmental setting within the park unit. If this area is cleared of native vegetation or cultivated for agricultural purposes, an uneven runoff may occur, resulting in increased flooding and erosion. In addition, less water would be stored in the soil and the quality of the watershed would be diminished. The water quality of Ritchie Creek might become further degraded within the park unit as a result of increased sedimentation and nitrate levels.

It is recommended that the State Department of Parks and Recreation, in conjunction with Napa County, carefully monitor all agricultural and logging activities on lands within both the Mill Creek and Ritchie Creek watersheds, in order to insure the preservation of park values within Bale Grist Mill SHP and Bothe-Napa Valley SP. To further protect the water supply and resources of these park units, it is recommended that the state and county jointly sponsor a comprehensive study of groundwater sources, supplies, and management for both the Mill Creek and Ritchie Creek watersheds.

Scenic Resources

Scenic resources at Bothe-Napa Valley SP are highlighted by beautiful stands of Douglas-fir and coast redwoods, lush riparian vegetation, and views of the Napa Valley floor and the mountain ranges that border it. Scenic resources at Bale Grist Mill SHP center around the rustic Bale Mill and granary structures.

A large portion of Bothe-Napa Valley SP is covered by mature stands of second-growth Douglas-fir trees. These towering conifers provide the park with a rich dark green canopy throughout the year, and in the fall they supply an evergreen backdrop for the brilliant color displays of such deciduous trees as big leaf maple and California redbud. Other outstanding vegetative scenery is located along the Ritchie and Mill creek beds where some of the most inland stands of large coastal redwoods in the state are located. Beneath these redwoods are the ferns and mosses and other forms of lush riparian vegetation that contrast so vividly with the thick reddish brown bark of these native trees.



View across valley

The beautiful natural scenery at Bothe-Napa Valley SP is complemented by outstanding views and vistas from vantage points within the park unit. From the lower elevations there are views upward toward the rock cliffs near the Mayacamas ridge; from the higher elevations there are panoramic views of the Napa Valley floor from Calistoga to St. Helena; and, farther to the east, of Mount St. Helena and the western slope of the Howell Mountains.

While Bothe-Napa Valley SP offers more in the way of natural scenery, Bale Grist Mill SHP offers some fine examples of man-made scenery. The old Bale Grist Mill and granary give park visitors a glimpse of the life-style of the early Napa Valley settlers. The rustic wooden structures exude the warmth, charm, and imagery that can only come from age and natural weathering and in their woodland setting are a favorite subject for photographing and sketching by visitors.

BIOLOGICAL FEATURES

Vegetative Associations

Only a few of the many diverse Napa Valley vegetation types are found within the study area, but these few are significant. They include not only rare and endangered plant species but also some of the most inland stands of coast redwoods in California.







The ten basic vegetative associations of this region, together with representative species of each, are shown on the chart on page 32. For the purpose of this report, vegetative associations within the specific study area will be grouped into three broad categories: 1) Chaparral; 2) Mixed Evergreen Forest; and 3) Disturbed Lands. (See Vegetative Associations Map, Fig. 8.)

Chaparral

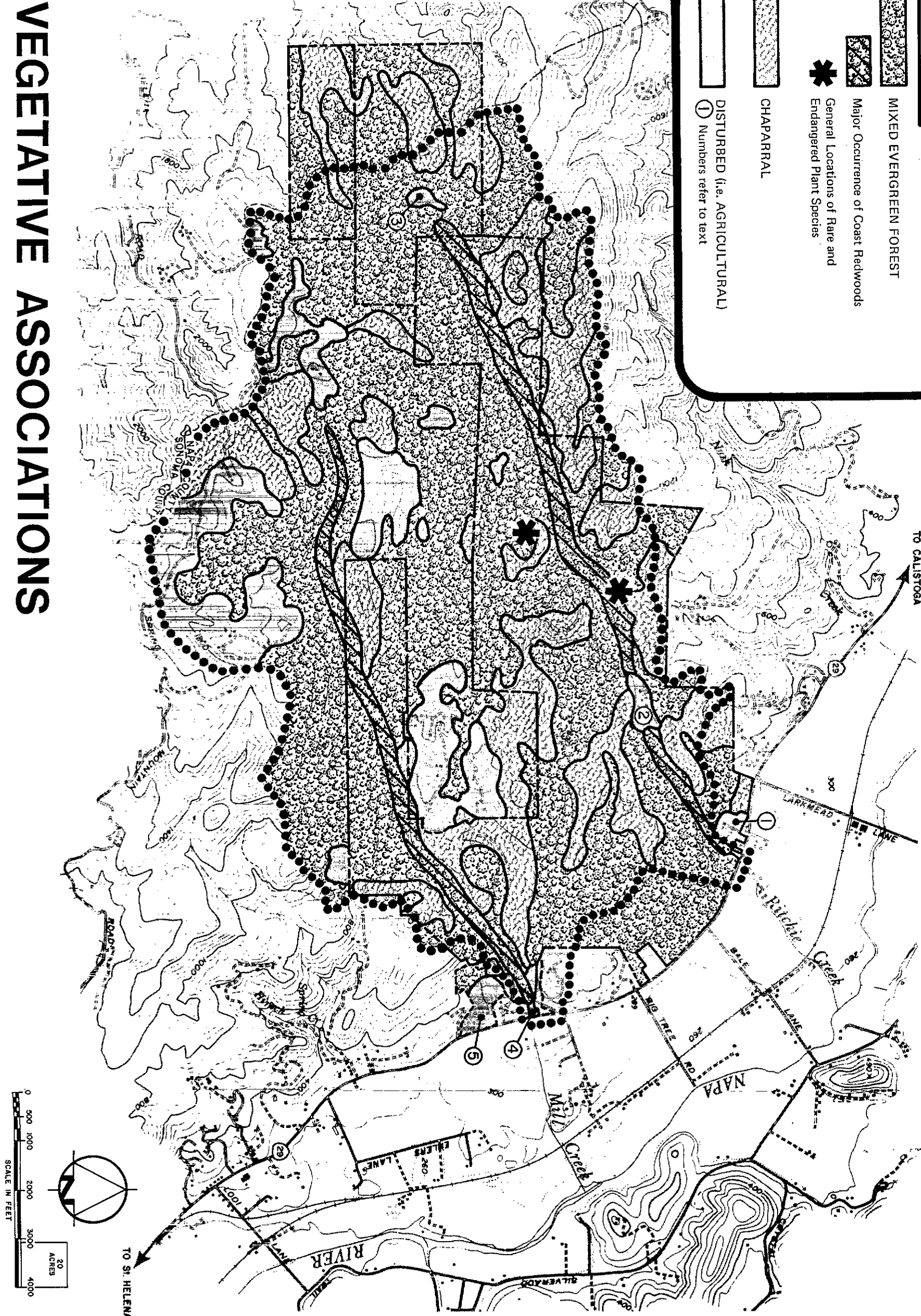
The California chaparral association, often called brushland, is composed of several species of shrubs, sometimes growing in pure stands and sometimes mixed. The chaparral within the study area is found primarily at higher elevations on dry sites and the south-facing slopes of the

LEGEND

FIGURE 8

-  MIXED EVERGREEN FOREST
-  Major Occurrence of Coast Redwoods
-  General Locations of Rare and Endangered Plant Species
-  CHAPARRAL
-  DISTURBED (i.e. AGRICULTURAL)
-  ① Numbers refer to text

VEGETATIVE ASSOCIATIONS



DESIGNED
DRAWN JUNE 1976
CHECKED

REVISIONS	DATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION

APPROVED _____ DATE _____

BOTHE-NAPA VALLEY STATE PARK &
BALE GRIST MILL STATE HISTORIC PARK

VEGETATIVE ASSOCIATIONS

DRAWING NO.
15038

SHEET NO.
OF

NAPA VALLEY VEGETATIVE ASSOCIATIONS

Vegetative Association	Common Name	Botanical Name	Physiographic Location
Saltwater—Brackishwater Marsh	slough grass reeds		tidal flats
Introduced Annual Grassland	wild oats grass	<i>Avena</i> spp. <i>Bromus</i> spp.	
Valley Oak — Grass Savanna	coast live oak valley oak wild oats grass	<i>Quercus agrifolia</i> <i>Q. lobata</i> <i>Avena</i> spp. <i>Bromus</i> spp.	
California chaparral	chemise lilac manzanita manzanita manzanita scrub oak coast live oak toyon mountain mohogany	<i>Adenostoma fasciculatum</i> <i>Ceanothus</i> spp. <i>Arctostaphylos manzanita</i> <i>A. tomentosa</i> <i>A. Stanfordiana</i> <i>Quercus dumosa</i> <i>Q. agrifolia</i> <i>Photinia arbutifolia</i> ; <i>Heteromeles arbutifolia</i> <i>Cercocarpus betuloides</i>	hill and mountain slopes, particularly south-facing and/or on Franciscan formation
Digger Pine Complex	digger pine coast live oak blue oak valley oak buckeye California bay California buckthorn buckbrush Yerba santa oak gooseberry	<i>Pinus sabiniana</i> <i>Quercus agrifolia</i> <i>Q. Douglasii</i> <i>Q. lobata</i> <i>Aesculus californica</i> <i>Umbellularia californica</i> <i>Rhamnus californica</i> <i>Ceanothus cuneatus</i> <i>Eriodictyon</i> spp. <i>Ribes</i> spp.	found in belts on hill and mountain slopes with poor soils and rock outcroppings
Northern Oak Woodland	coast live oak blue oak black oak valley oak California bay madrone toyon poison oak buckeye manzanita manzanita manzanita manzanita	<i>Quercus agrifolia</i> <i>Q. Douglasii</i> <i>Q. Kelloggii</i> <i>Q. Lobata</i> <i>Umbellularia californica</i> <i>Arbutus Menziesii</i> <i>Photinia arbutifolia</i> <i>Rhus diversiloba</i> <i>Aesculus californica</i> <i>Arctostaphylos viscida</i> <i>A. Stanfordiana</i> <i>A. glandulosa</i> <i>A. manzanita</i>	slopes, south-facing, Sonoma volcanics, Mayacamas and Howell mountains
Oak Association (Riparian Phase)	coast live oak valley oak California bay white alder big leaf maple yellow willow red willow arroyo willow	<i>Quercus agrifolia</i> <i>Q. lobata</i> <i>Umbellularia californica</i> <i>Alnus rhombifolia</i> <i>Acer macrophyllum</i> <i>Salix lasiandra</i> <i>S. laevigata</i> <i>S. lasiolepis</i>	throughout along stream course
Coast Redwood Forest	coast redwood big leaf maple white alder red alder sweet shrub wild lilac oregon ash tanbark oak California bay redbud	<i>Sequoia sempervirens</i> <i>Acer macrophyllum</i> <i>Alnus rhombifolia</i> <i>A. rubra</i> <i>Calycanthus occidentalis</i> <i>Ceanothus californicus</i> <i>Corylus californica</i> <i>Fraxinus oregona</i> <i>Lithocarpus densiflora</i> <i>Umbellularia californica</i> <i>Cercis occidentalis</i>	creekbeds, canyons, and northern slopes, primarily restricted to Mayacamas Mts.
Coast Redwood—Douglas-fir	Douglas-fir oregon oak coast redwood coast live oak	<i>Pseudotsuga Menziesii</i> <i>Quercus garryana</i> <i>sequoia sempervirens</i> <i>Q. agrifolia</i>	borders of redwood forest, logged over area.
Yellow Pine—Douglas-fir	Douglas-fir yellow pine oaks incense cedar nutmeg	<i>Pseudotsuga Menziesii</i> <i>Pinus ponderosa</i> <i>Quercus</i> spp. <i>Calocedrus decurrens</i> <i>Torreya californica</i>	Howell Mts. and moister slopes on east side of Mt. St. Helena

Mayacamas Mountains. It is characterized by a predominance of manzanita and ceanothus. The shrubs that comprise the chaparral are generally rather low, averaging between three and six feet tall, although occasional individuals may reach ten feet.

Mixed Evergreen Forest

The largest vegetative group within the study area is the mixed evergreen forest. This is a broad classification that includes plant species from four of the basic Napa Valley vegetative associations: the northern oak woodland; the oak association (riparian phase); the coast redwood forest; and the coast redwood—Douglas-fir association.

The northern oak woodland association is common to both the Howell and Mayacamas mountain slopes, and its riparian phase is found along stream courses in these areas. The coast redwood forest is also located along creek beds. Although the most inland (about 42 miles from the coast) stand of redwoods in California is found on the Howell Mountains, the overwhelming majority of these inland coast redwoods are located along the creeks, canyons, and northern slopes of the Mayacamas Mountains. In the same general vicinity and bordering the redwood forest is the coast redwood — Douglas-fir association. This vegetative group is extensive throughout Bothe-Napa Valley SP where it is mostly composed of second-growth Douglas-fir.

The composition of the mixed evergreen forest varies according to its physical environment. On mesic sites, it is comprised of tanbark oak, oak, poison oak, madrone, scrub oak, bear grass, Idaho fescue, and bracken. After logging activities in the early 20th century, the climax coastal redwood and Douglas-fir forests reestablished almost immediately on the west slopes, stream bottoms, and canyon bottoms. Beneath these forests is an understory of blueberry, deer tongue fern, wild grape, and California bay. On the rocky knolls and flatter terraces, large deciduous oaks dominate with bear grass and poison oak as understory.

The rare and endangered ruby lily and redwood orchid are found in the mixed evergreen forest association. The general location of these plants is indicated on the map on page 31.

The present trend in vegetative succession within the study area indicates that tanbark oak is probably the most successful and dominant of the seral species. The second successional or climax stage is occurring on all portions of the site; that is, replacement with redwoods on the north-facing slopes, the stability of chaparral on the south-facing slopes, and the dominance of mixed evergreen forest on the east and west-facing slopes.



Ruby Lily

Redwood Orchid

Disturbed Lands

The first two plant categories discussed refer to *natural* vegetative categories found within the study area. The third category, *disturbed lands*, refers to those areas which have been altered by man. They are primarily lands that have been stripped of natural vegetation and converted to agricultural uses.

The activity of man within the study area and in the Napa Valley in general has greatly altered the natural development of the area's vegetation. The clearing of vegetation for agriculture and new construction, as well as the logging and fire prevention activities, have all had a strong impact upon the area plant communities.

Whole vegetative associations have been replaced by vineyards and wineries, not only on the valley floor but also in the mountains and foothills that border the valley. Heavy logging during the 19th century virtually eliminated the *pure* stands of Douglas-fir forest that once covered the Mayacamas Mountains and severely restricted the distribution of Douglas-fir, coast redwoods, and yellow pines. A great deal of this logging continued into the early 20th century when Napa Valley timber was used to rebuild San Francisco following that city's disastrous 1906 earthquake. Although not logged as a building material, digger pine was also cut in quantity for use as fuel because of its high burning temperature.

Another influence of man upon the development of the Napa Valley area vegetation has been fire control. Before the advent of fire control in the Napa Valley, fire started by lightning or by Indians was an important influence upon the development of certain plant communities and upon the animals that depended upon those plants for food and habitat.

The coast redwood is a good example of a fire-dependent species. When fires are controlled, very few, if any, seedlings become established in the deep litter or duff that collects on the unburned forest floor. Other species of vegetation that can germinate in the thick duff increase in number and eventually dominate the redwoods. Thus, if controlled burning programs are not implemented, fire-dependent plants such as the coast redwood may gradually diminish and eventually disappear.

Recommendations for the protection of the rare and endangered ruby lily and the redwood orchid can be found in the "Resource Management and Protection Plan," p.95. A partial listing of plants that occupy the vegetative and ecological habitats found within Bothe-Napa Valley SP can be found in Appendix B.

At Bothe-Napa Valley SP and Bale Grist Mill SHP, five areas of disturbed lands, found within lands that are proposed for or are now under state park management, should be considered for conversion back to natural vegetation. These areas are indicated by a number on the Vegetative Associations Map. Following are descriptions of those areas:

1. This area was cleared at one time for a larger residence and small barn. Some exotic plants have been planted near the house and *Vinca* (periwinkle) has covered the Ritchie Creek banks in that area. Several large eucalyptus trees have also been noted in the same vicinity.
2. This area was the site of *Lonely*, the house built by Lillie Coit. Many exotics have been planted in this area including eucalyptus, black acacias, and a wide variety of fruit trees; periwinkle covers the creek bank in this area also. Any interpretive and historical values that the exotic vegetation at this site would contribute to the possible interpretation of the Coit home site should be considered before implementing any removal and replanting program in this area.
3. This area was once cleared for an orchard. The trees include a variety of fruit trees that have been left untended for a long time and are in generally poor condition. Before attempting to replant this area, a detailed soil analysis should be done to determine possible concentrations of serpentine which tends to retard the growth of many types of vegetation.
4. This area is the site of the historic Bale Grist Mill and granary buildings. Several exotics have been planted in this area including English ivy and oleanders, and periwinkle covers the banks

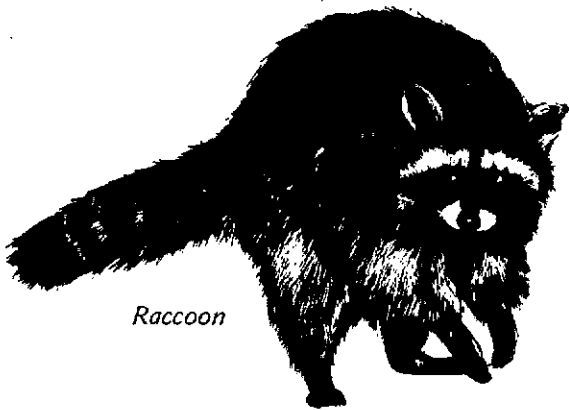
of Mill Creek. Before removing any of these exotics, it should be determined whether or not they contribute authenticity to the restoration and interpretation of the Bale Mill.

5. This area appears to have been cleared at one time for agriculture; however, no major form of exotic vegetation is now found here today. A large portion of the land adjacent to Highway 29 consists of a very natural-appearing meadow that should probably be excluded from any revegetation effort.

More detailed studies by the Department's Resource Preservation and Interpretation Division should be made before proposing a definite course of action for any of these disturbed areas.



Coast redwood



Raccoon

Wildlife

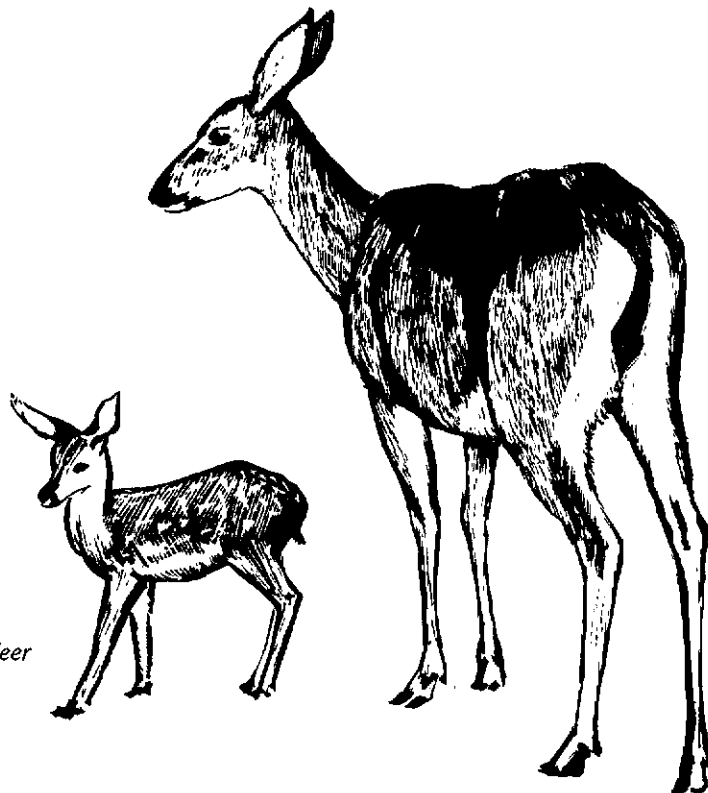
Although the Napa Valley once possessed a wealth of diverse wildlife, man's activities in the valley area have reduced both the variety and the numbers of the animal populations.

Early settlers reported that it was not unusual to see 50 or 60 grizzly bears in one day, and gigantic elk were found in great numbers in the marshy ground along the river. Salmon were abundant in the Napa and Carneros rivers, and, as recently as 1913, river otter inhabited the Napa River.

For early settlers hunting was an economic necessity; later it became an important sport. Most of the large mammals that were used for food or presented a threat to crops, livestock, or the settlers themselves, have been eliminated. The ring-tailed cat, California mountain lion, California wildcat, California raccoon, gray fox, California coyote, and skunk, once so numerous on the valley floor, have been pushed into the rugged and relatively inaccessible highlands.

But the pioneers are not totally responsible for disrupting the Napa Valley wildlife; modern man with his domesticated pets, livestock, and cultivated crops has perhaps had an even stronger effect upon the wildlife and its associated vegetative habitats. This is evidenced by the decreasing number of different species and the disappearance of many animals that were once common to the area. Although smaller animals such as rodents, rabbits, squirrels, and chipmunks are still abundant, the only large mammal now found in the area is the black-tailed deer.

Bothe-Napa Valley State Park and Bale Grist Mill State Historic Park fall within the Central Coastal Range and the Central Redwood wildlife regions. To date, no rare and endangered wildlife has been noted in these park units. A partial listing of wildlife that has either been sighted or is believed to occupy the ecological habitats found within the parks can be found in Appendix C.

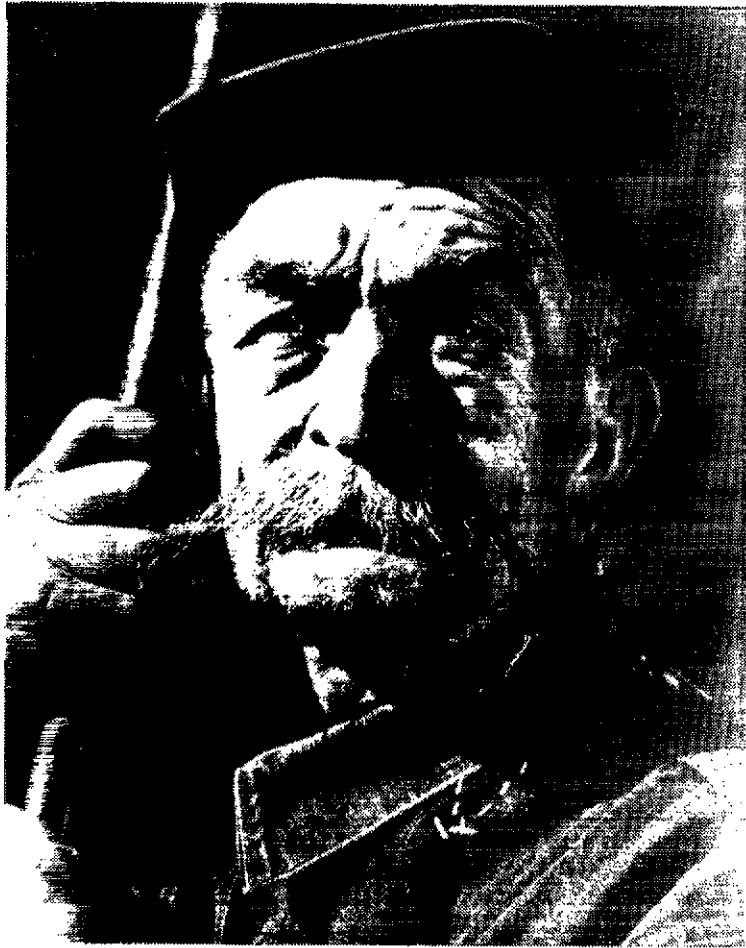


Black-tailed deer

Cultural Resources

What are the historical resources?

What are the archeological resources?



Early Napa County resident
(Photo by K.J. Arntzen)

Historical Resources

The upper Napa Valley in general and Bothe-Napa Valley SP and Bale Grist Mill SHP in particular are historical areas, gaining much of their cultural significance from the activities of two diverse groups of man: the California Indians and the settlers.

The Wappo Indians were the first inhabitants of the Napa Valley. The six major groups of Wappo Indians located in the region were the Napa, the Ulucas, the Caymus, the Mayacomas, the Cuajoman, and the Soscols. The americanized tribal name, 'Wappo', originates from the Spanish word, 'guapo', meaning brave.

In 1823, the year of initial white contact, the Indian population was estimated to be between three and six thousand; a number they never equaled again. With the settlers, both Mexican and American, came the "civilized" diseases of smallpox, measles, and cholera. These diseases killed many Indians and those who survived were often murdered on the slightest provocation. By 1860, the few remaining Wappos were relocated to another area.

The first recorded expedition into the Napa area was in the summer of 1823 when a party led by Francisco Castro and accompanied by Jose Sanchez and Father Jose Altimira made its way north from the San Francisco Bay. They had been sent to build a new mission and Sonoma was the site eventually selected.

Later, large tracts of land (called ranchos) in the valley were transferred to private ownership by the Mexican government's land grant program. (At that time General Salvador Vallejo, the brother of the well-known Mariano Guadalupe Vallejo, had the responsibility of governing the valley.)

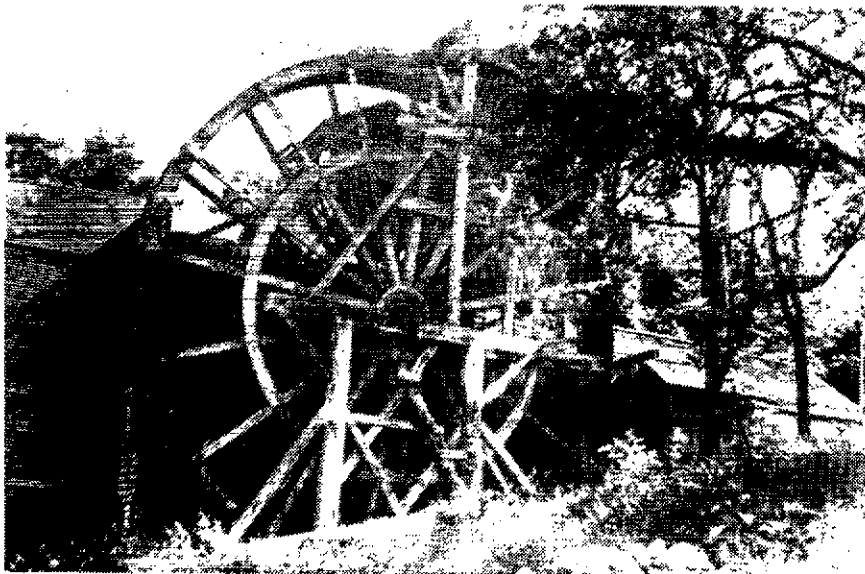
George Calvert Yount, pioneer, soldier, hunter, trapper, and frontiersman who became a Mexican citizen, obtained the first of these grants (the 11,841-acre Rancho Caymers) within what is now Napa County. His land was just north of the present town of Yountville.

Another prominent person to receive a land grant was Edward Turner Bale, an English surgeon, who arrived in Monterey in 1834. Dr. Bale became a Mexican citizen, married Dona Marie Ignacia Soberanes, a niece of General Vallejo, and was awarded the grant of Rancho Carne Humana (1843). Dr. Bale's rancho included much of the upper Napa Valley (the towns of St. Helena and Calistoga grew up within its limits in the 1850s) and was joined on the south by the rancho of George Calvert Yount.

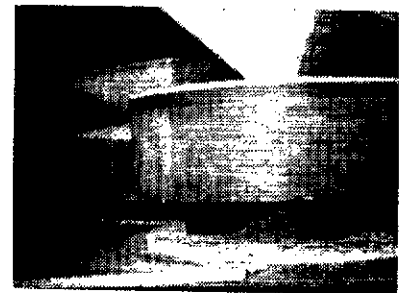
Dr. Bale raised enough food on his rancho to feed the five hundred Indian people he allegedly employed, but he was not interested in ranching or farming his land for profit. In 1845, he sold part of his land to raise money to construct a water-powered flour and grist mill on the remaining land. (The grist mill structure and a 3/4-acre parcel of the original mill site are now contained within the boundaries of Bale Grist Mill State Historic Park.) Late in 1845, Bale offered a newcomer to California, Florentine E. Kellogg, 600 acres of Rancho Carne Humana for doing the iron work for the mill. Kellogg's house still stands, just south of the mill, very much as it was when built in 1849. (It is now owned by W.W. Lyman, Jr.)

While the forty-niners were eagerly searching for gold in the hills and ravines of the Sierra Nevada, the great waterwheel of Bale's mill was daily grinding the golden grain of the upper Napa Valley into flour for the settlers. The Bale Mill is a registered State and National Landmark and has remained essentially unchanged since its construction. The structure is important because few grist mills of its size were built in California, much less preserved. The mill building (ultimately three stories with a false front) was built with lumber cut from neighboring forests and the original millstones were taken from the hill in back of the mill.

Views of Bale Grist Mill from 1888 to the present



1888



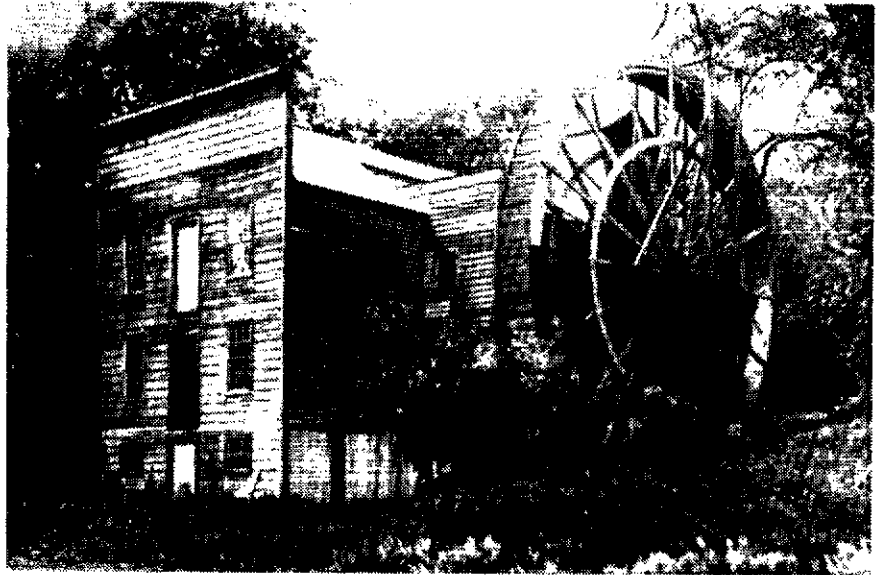
Millstones



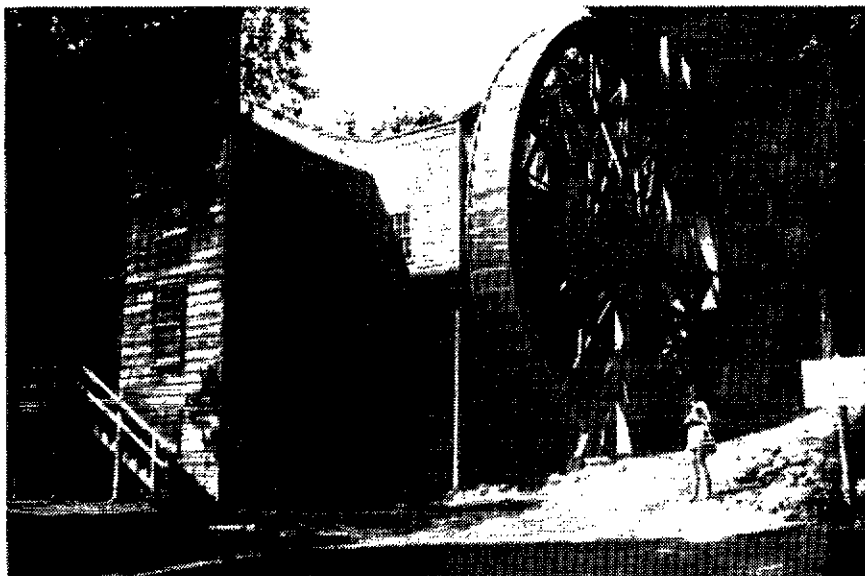
Early 1900s



In the 1920s



1940s



Present time

Two years after construction of the mill, Dr. Bale, spurred by thoughts of adventure and riches, joined the gold rush and went to the mines. There he contracted a "fever" from which he never recovered and his wife and six children inherited his estate. Dr. Bale's daughter, Isadora, who later married Louis Bruck, inherited the mill and the surrounding land.

About the time of her marriage, Isadora Bale Bruck sold the mill which later passed through several other hands. In 1871, the Reverend Theodore B. Lyman bought the mill and the adjacent 30 acres of land for the sum of \$10,000 and the mill was operated by his son, W.W. Lyman, Sr. The waterwheel was used until 1879 when its use became impractical and a turbine engine run by water was installed. The final commercial use of the mill is believed to have taken place in about 1905, and it was not used at all after 1910.



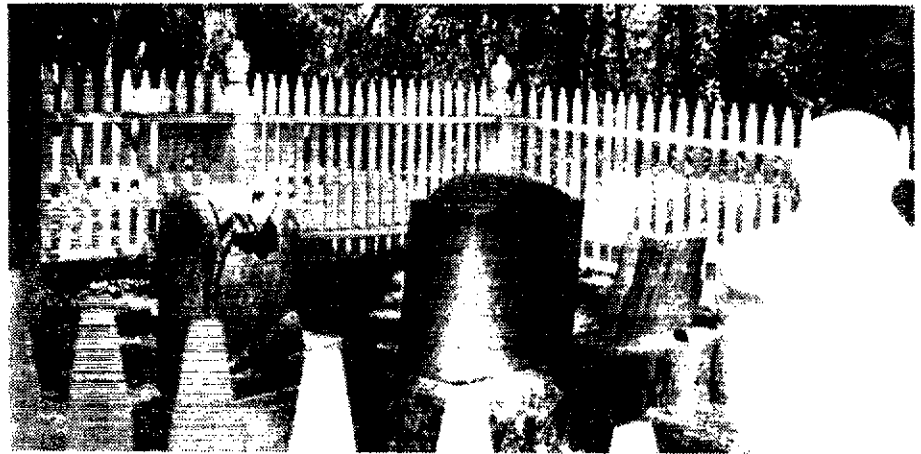
Early day visitors to the mill





The White Church

Pioneer Cemetery



In 1928, W.W. Lyman Sr. died and the property passed to his wife, Sarah. In 1923, Bismarck Bruck, the son of Isadora Bale Bruck, persuaded Mrs. Lyman to deed the mill to the Napa County Parlor of the Native Sons of the Golden West for preservation as a public monument. The mill was dedicated on June 21, 1925 and on October 9, 1939, it was registered as California State Historical Landmark No. 359.

In June 1941, the Native Sons deeded the mill to Napa County and on June 22, 1972 it was entered on the National Register of Historic Places. Then, in the spring of 1974, Assembly Bill 1431 conveyed the Bale Mill to the state.

The second American school in California was opened across the road (the present Highway 29) from the grist mill by Sarah Graves Fosdick in July, 1847. (The first school had been established earlier that same year by Olive Mann Isbell in the old mission building at Santa Clara.) Mrs. Fosdick, a survivor of the ill-fated Reed-Donner party, had been rescued and brought to the Napa Valley by Reasin P. Tucker. At first, the school was a mere shelter of branches and could be used only during good weather. It was replaced in 1849 by a real building which was used about five years until the first public school was opened.

Approximately one mile north of the grist mill and the Fosdick School, within Bale's original Rancho Carne Humana grant and within the present boundaries of Bothe-Napa Valley State Park, lies the site of the first church and the oldest cemetery in the Napa Valley. The White Church was named after and built by its founder and first minister, the Reverend Asa White, in 1853. This Methodist Episcopal church was a small structure having two front entrances, one for the men and one for the women (the different sexes were required to sit on opposite sides during services). The cemetery, known today as the Pioneer Cemetery, is located about 15 yards behind the church site.

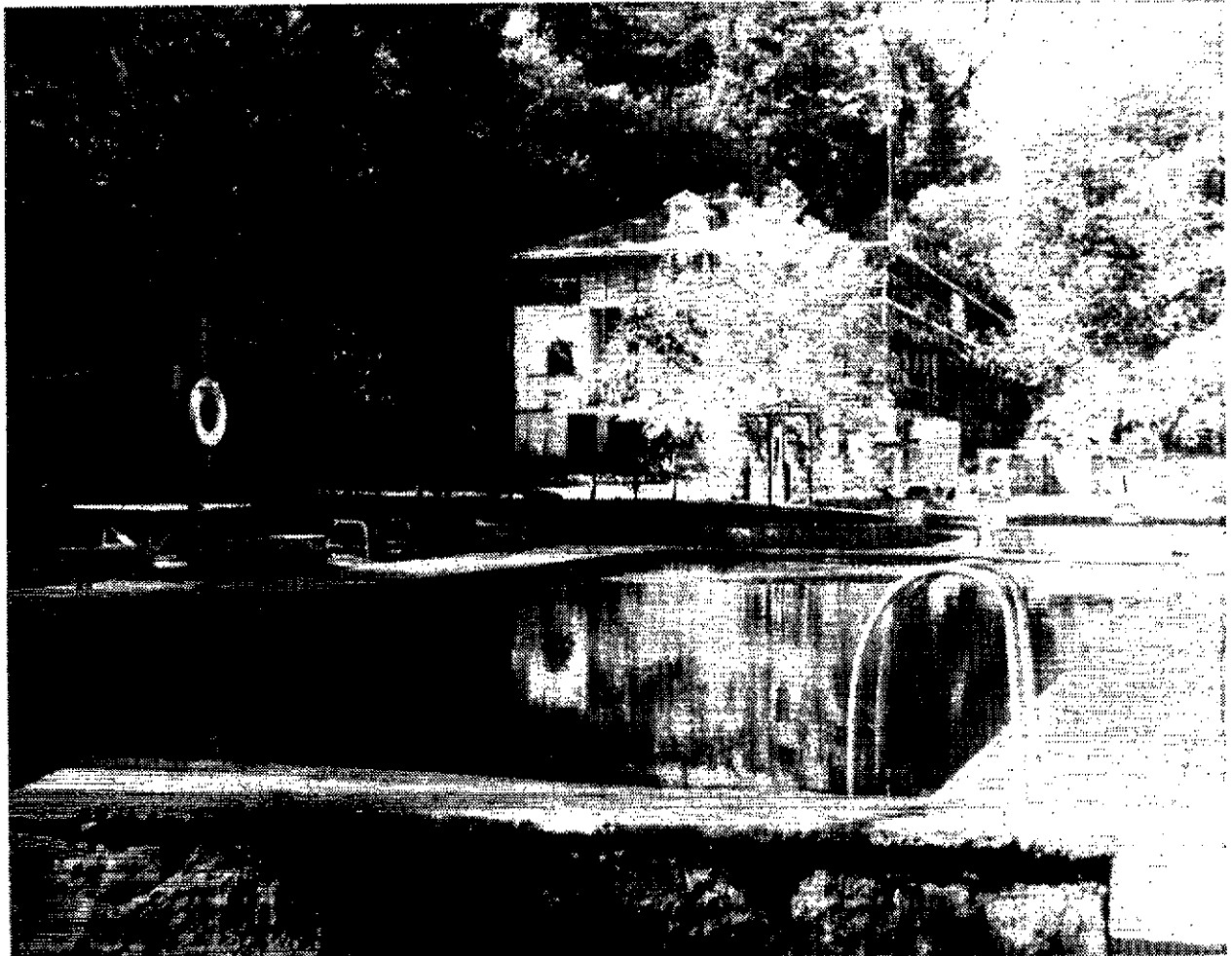
Also within the original Bale rancho and now Bothe-Napa Valley State Park was "Lonely," one of the homes of prominent San Francisco socialite, Lillie H. Coit. The house was constructed in 1881 and was located adjacent to Ritchie Creek at the present site of the park maintenance building. In later years it was destroyed by fire and an old barn and small rock fountain are all that now remain of the original home structures.

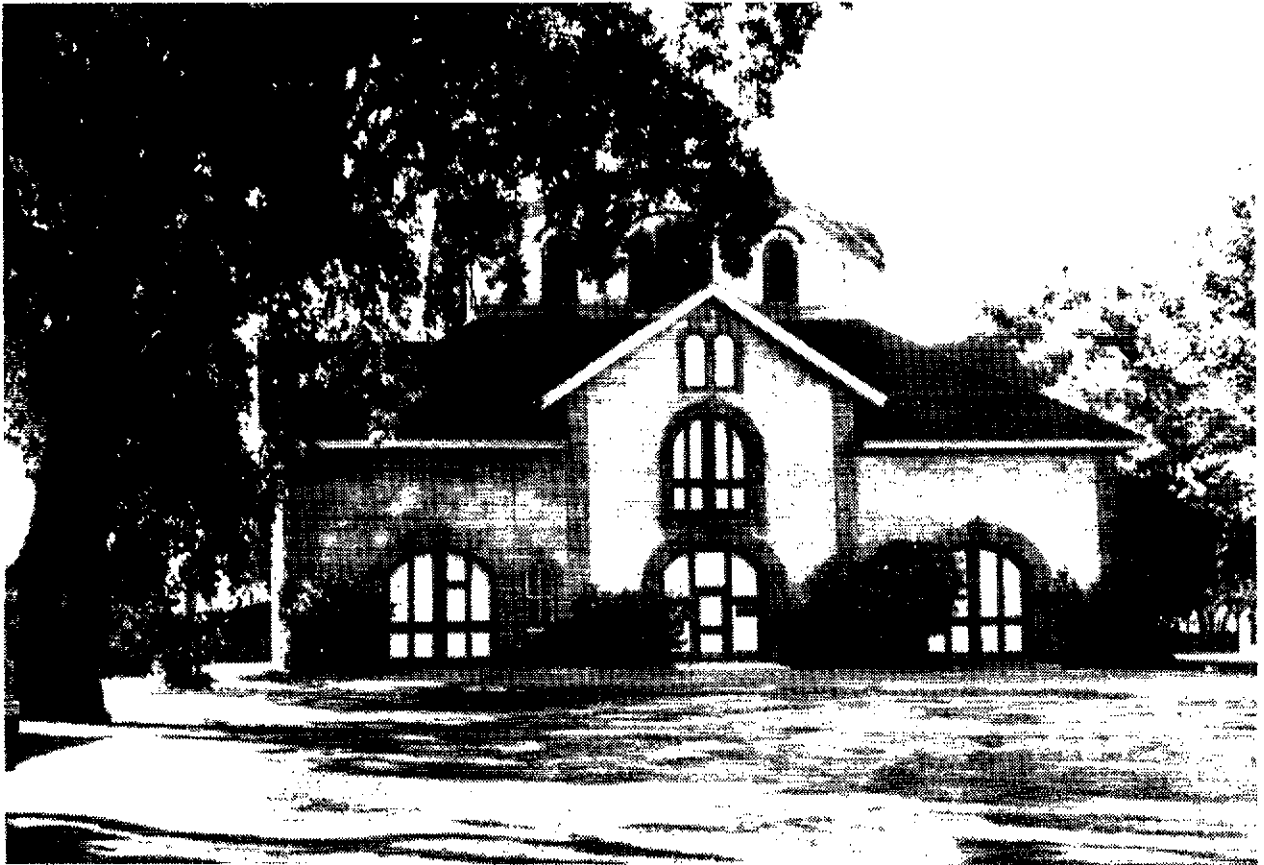
After Lillie Coit's death in 1929, Reinhold Bothe purchased over 1,000 acres of land in the area that is now Bothe-Napa Valley State Park. On his property near the present State Highway 29, he developed cabins, tent cabins, a swimming pool, and a recreation hall. He called his development Bothe's Paradise Park. In 1960, the State of California Department of Parks and Recreation acquired Bothe's property with the intent of preserving a segment of Napa Valley woodland for all time. Some of Bothe's original cabins are still in use by state park personnel and his swimming pool is still being enjoyed by park visitors.

Other attractions of the Napa Valley include resorts, health spas, the legendary Calistoga geysers, and, of course, the wineries. The Napa Valley contains the greatest table wine empire of the United States. Some of the wineries in the Napa Valley date back to the late 1850s and early 1860s. During that period Charles Krug introduced new varieties of grapes to replace the old mission varieties brought in by the Spanish settlers and began making wine for various people in the area. Today, the seemingly endless rows of vineyards and wineries attract thousands of visitors annually.

The major historical sites within or adjacent to the study area are identified on the Cultural Resources Map, Fig. 9. It is recommended that all of these major historical sites be protected and interpreted. Specific recommendations are made in the "General Development Plan" chapter of this report.

Swimming pool





*Krug Winery
Coit fountain*



Archeological Resources

Archival study and on-site evaluation have indicated that archeological sites representing a cultural interface between the Pomo, Miwok, and Wappo Indian tribes exist at both state parks. A Phase II archeological testing program is recommended for archeological sites within those areas proposed for development.

The identified archeological resources within the study area are extremely valuable ones and assume even greater importance because many prime sites were damaged or destroyed during the construction of State Highway 29. Although one site is located almost on top of the Mayacamas ridge, the majority of the sites are found on flat areas adjacent to or in the vicinity of the Ritchie and Mill creek watercourses (see Cultural Resources Map, Fig. 9).

There are indications that some Ritchie Creek archeological sites located on newly acquired lands and on private property adjacent to the state park have been disturbed in recent times. It is probable that damage to archeological sites by park visitors might be reduced through educational and interpretive programs presented by state park personnel.

We must not only reduce potential visitor damage to these non-renewable resources, but also make every effort to diminish possible damage during development. For this reason, it is recommended that a Phase II archeological testing program be carried out in all archeological areas where development is proposed. Such a Phase II study would include:

1. Intensive surface collection and mapping of all affected sites
2. Test excavations in the area of direct impact to determine the depth of the archeological deposits and identify the data categories present
3. Artifact analysis and preparation of a report detailing the results of the investigations

Based on the Phase II archeological test results, a subsequent Phase III data recovery program may be required to ensure that an adequate sample of the data is recovered prior to development.

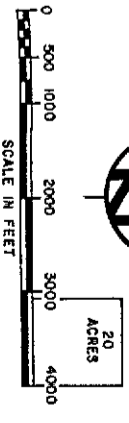
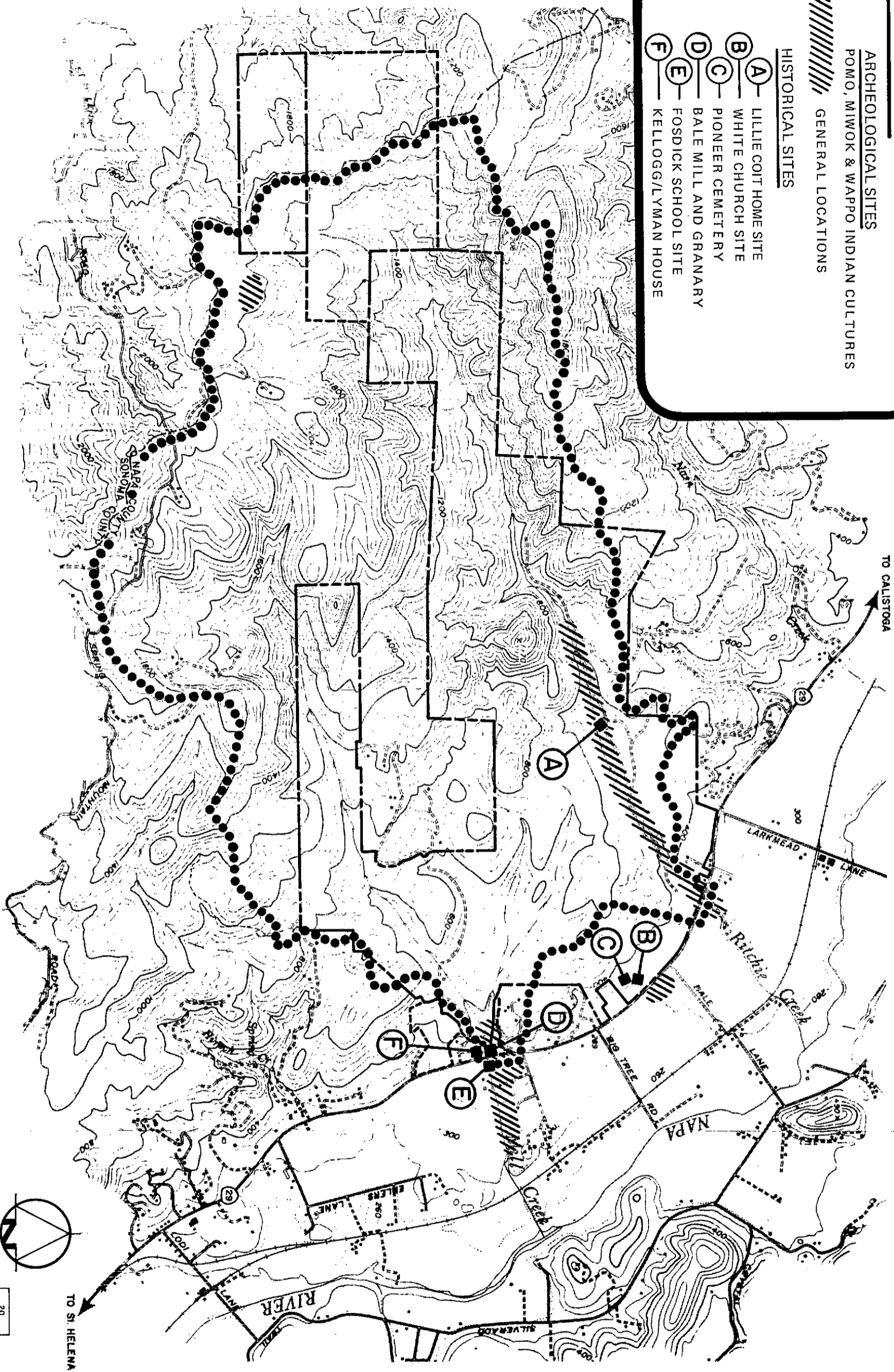


Indian mortar and pestle and arrowheads

LEGEND

FIGURE 9

- ARCHAEOLOGICAL SITES
- POMO, MIWOK & WAPPO INDIAN CULTURES
- GENERAL LOCATIONS
- HISTORICAL SITES
- (A) LILLIE COIT HOME SITE
- (B) WHITE CHURCH SITE
- (C) PIONEER CEMETERY
- (D) BALE MILL AND GRANARY
- (E) FOSDICK SCHOOL SITE
- (F) KELLOGG/LYMAN HOUSE



CULTURAL RESOURCES

SHEET NO. 15038 OF	BOTHE-NAPA VALLEY STATE PARK & BALE GRIST MILL STATE HISTORIC PARK CULTURAL RESOURCES	RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION APPROVED _____ DATE _____	REVISIONS _____ _____ _____	DATE _____	DESIGNED _____ DRAWN JUNE 1976 CHECKED _____

Recreational Resources

What facilities already exist?

What utilities already exist?

How much visitor use do the park units receive?

Who uses the parks?

Where do the visitors come from?

What activities do the park units now offer visitors?

What problems exist at these parks?

What can be expected in the area of future visitor attendance?

How will these parks be affected by probable future changes, trends, and demands for outdoor recreation?

What recreational planning has been done in the vicinity of the park units?

EXISTING SITUATION

Existing Facilities

While Bothe-Napa Valley SP has day-use as well as overnight and administrative facilities, Bale Grist Mill SHP, excluding its historic structures, possesses only limited parking and restroom facilities.

FACILITIES AT BOTHE-NAPA VALLEY SP

Day-Use Facilities

Swimming pool — A medium-sized, rectangular pool (originally constructed to provide a swim area for visitors to Bothe's Paradise Lodge) is still in use and it is filled to capacity during most of the summer months, despite the separate pool fee charged to all swimmers. At present there are no toilet facilities within the pool enclosure.

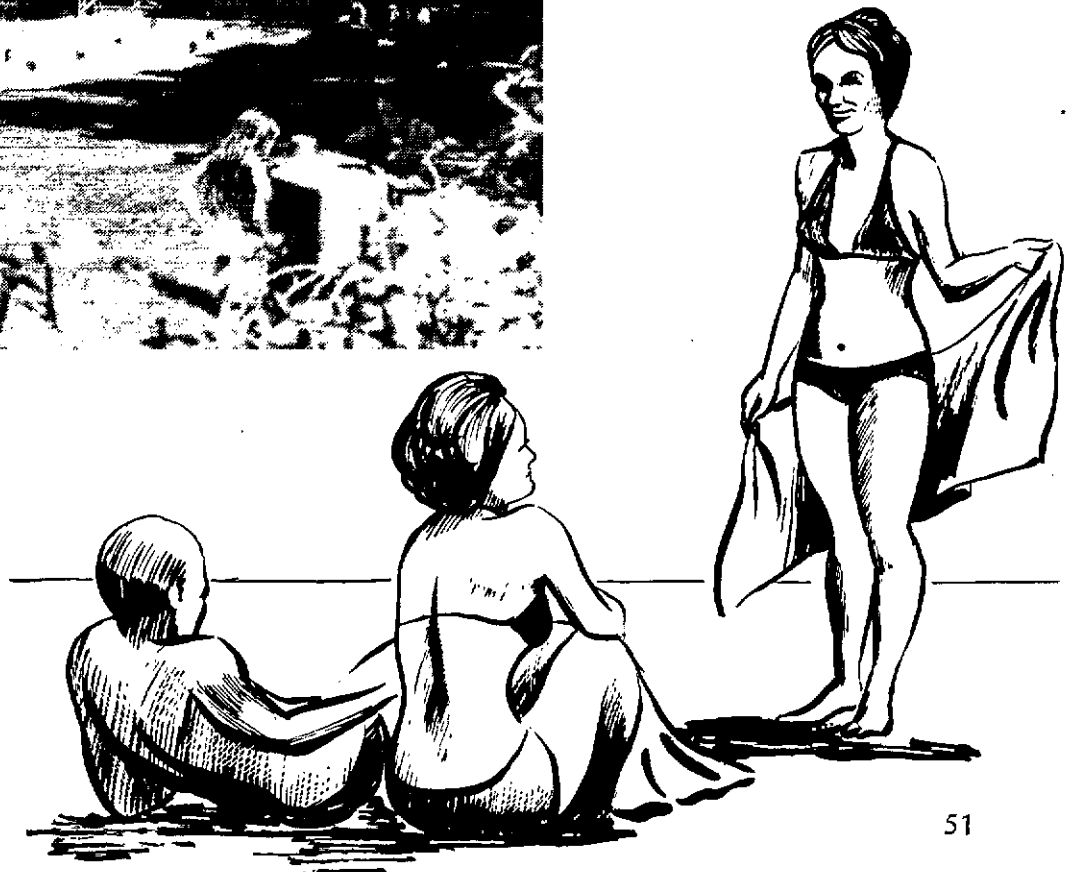
Picnicking — 50 picnic tables (most of which are constructed of salvaged water tank materials) are available to the day user. In addition, there is a large shade ramada for group picnicking.

Trails — There are approximately 9 miles of hiking and equestrian trails presently signed and in use. One of the trails, the Coit Nature Trail, provides a self-guided nature walk.

Parking — There are no designated parking areas other than a few spaces near the park entrance.



View of pool



Overnight-Use Facilities

Campsites — There are 35 developed family campsites, each with a table and stove. The existing campsites are immediately adjacent to noisy Highway 29 and the high density of the campsites may be potentially dangerous to the large Douglas-firs that are located in the camping area.

Other Facilities

Restrooms — There are two restroom facilities; one is a combination of toilets and hot water showers and laundry tubs and the other has only minimal toilet facilities. Both restroom facilities are old and may need replacement in the very near future.

Park office — This structure is a modified cabin from Bothe's Paradise Park and may need to be replaced in the near future.

Area headquarters — This building is also one of the original cabins from Bothe's Paradise Park and may need to be replaced in the near future.

Ranger's residences — With the exception of two new trailers, the residences are old cabins from Bothe's Paradise Park and may need to be replaced in the near future.

Maintenance buildings — These two structures occupy the former home site of San Francisco socialite, Lillie H. Coit. One of the structures is believed to be the original Coit barn and the other a secluded gambling facility built during the days of Bothe's Paradise Park. Both structures possibly have historical value.



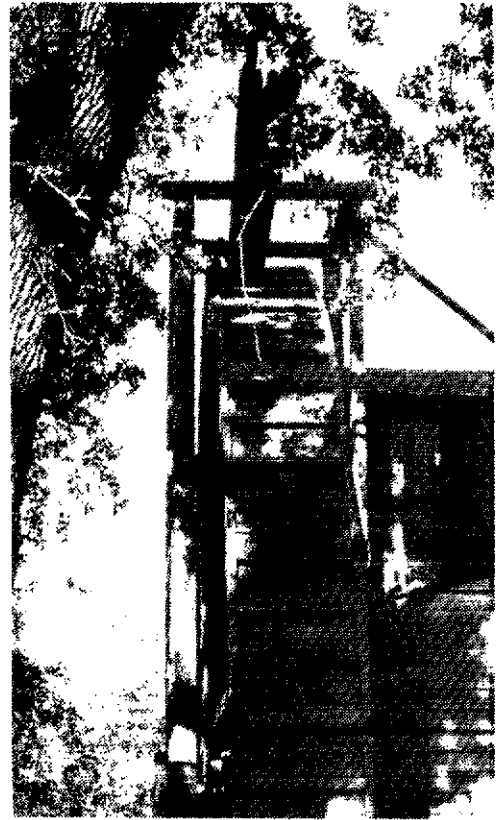
Entrance station



Bothe's Paradise Park cabins



The picturesque millwheel



FACILITIES AT BALE GRIST MILL SHP

Day-Use Facilities — No developed facilities.

Overnight-Use Facilities — No developed facilities.

Other Facilities

Existing Bale Grist Mill structure — Funds have been budgeted for the restoration of this structure.

Existing granary structure (presently used as a ranger residence) — Funds have been budgeted for the restoration of this structure.

Restrooms — This unit is relatively new but visually intrudes upon the historic atmosphere that we are attempting to develop at Bale Grist Mill SHP.

Parking for approximately 15 cars — These parking spaces are unpaved (gravel only) and are not adequately delineated.

Existing Utilities

Both units are now being serviced by local electrical and telephone companies and each has its own sewage leach field and water supply.

Electricity — PG&E has electrical lines along Highway 29 and at Bothe-Napa Valley SP there are takeoffs that serve the employee housing, the restrooms, and the present headquarters. In addition, there is an overhead line through the park to the existing maintenance area.

Bale Grist Mill SHP receives electrical service for the mill, granary, and restrooms from the same lines that parallel Highway 29.

NOTE: Gas is presently not being used at the park units but there is a gas outlet located near the existing entrance to Bothe-Napa Valley SP, should gas service be needed at some future time.

Telephone — Pacific Telephone has lines running along Highway 29 and they service both of the park units.

Sewage — Sewer service does not extend beyond the city limits of either Calistoga or St. Helena. Therefore, the park units have developed leach fields to handle their own sewage. These fields are located on the valley floor in pervious loam-type soil.

Water — Bothe-Napa Valley SP is presently served by two springs located in the hills south of Ritchie Creek near the head of Spring Creek. A 4-inch pipeline carries the water down Ritchie Creek to two 5000-gallon storage tanks. From the tanks the water goes to the ranger residences and the present camping, picnicking, and day-use facilities. During most years a minimum of 20 gallons per minute flows into the present storage tanks; however, during extremely dry years, the water flow into the tanks may drop to levels as low as 10 gallons per minute.

Bale Grist Mill SHP receives its water from its own well located within the park.

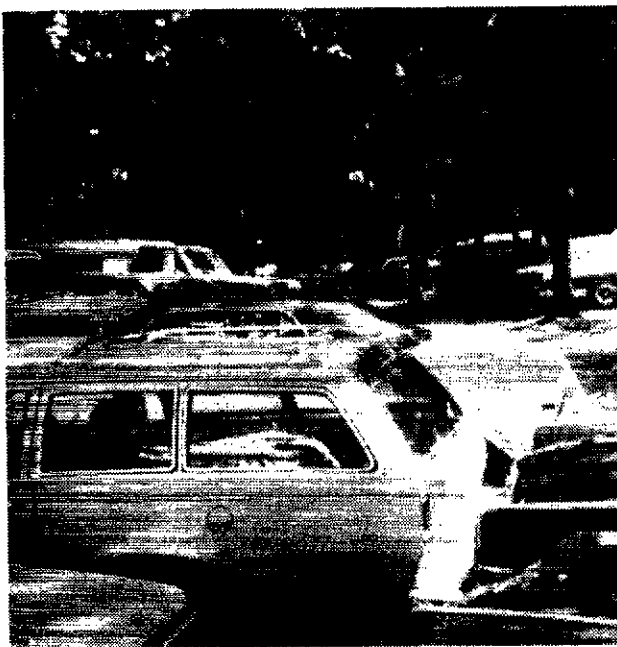
Visitor Demand

During the 1975-76 fiscal year more than 76,600 persons visited Bothe-Napa Valley SP and more than 83,700 visited Bale Grist Mill SHP.

Visitor attendance at Bothe-Napa Valley State Park has shown a 60 percent overall increase during the last ten years, but no new facilities have been added. This increased visitor demand has, of course, created considerable pressure on the limited existing facilities and has led to Bothe-Napa Valley SP being frequently filled to capacity for day and overnight use (see Bothe-Napa Valley SP Visitor Attendance and Turnaways, Table 1). Attendance and turnaway figures show a definite need for more facilities to meet the present demand and the expected future demand.

While attendance at Bothe-Napa Valley SP has been very well documented over the last decade, the attendance at Bale Grist Mill SHP has only been recorded for the last two seasons. Only recently opened as a unit of the State Park System, Bale Grist Mill SHP is already operating at near capacity for its existing parking facilities. Visitor attendance at the park has already reached peaks exceeding 1,200 visitors per day. There is a demonstrated need for more facilities to meet the present demand and the expected future demand.

Visitor attendance is increasing ...



**TABLE 1
BOTHE-NAPA VALLEY SP VISITOR
ATTENDANCE AND TURNAWAYS**

Year	Attendance (persons)	Turnaways (persons)
1965-66	42,144	
1966-67	48,408	
1967-68	53,051	
1968-69	52,123	No Data Available
1969-70	74,691	
1970-71	90,544	
1971-72	92,423	
1972-73	80,434	
1973-74	72,375	9,014
1974-75	68,519	9,854
1975-76	76,681	

Park Users

Although Bothe-Napa Valley SP and Bale Grist Mill SHP attract many county and out-of-county visitors because of the parks' own desirable recreational and historical qualities, the majority of the users visit the parks in conjunction with a trip to the Napa Valley wineries.

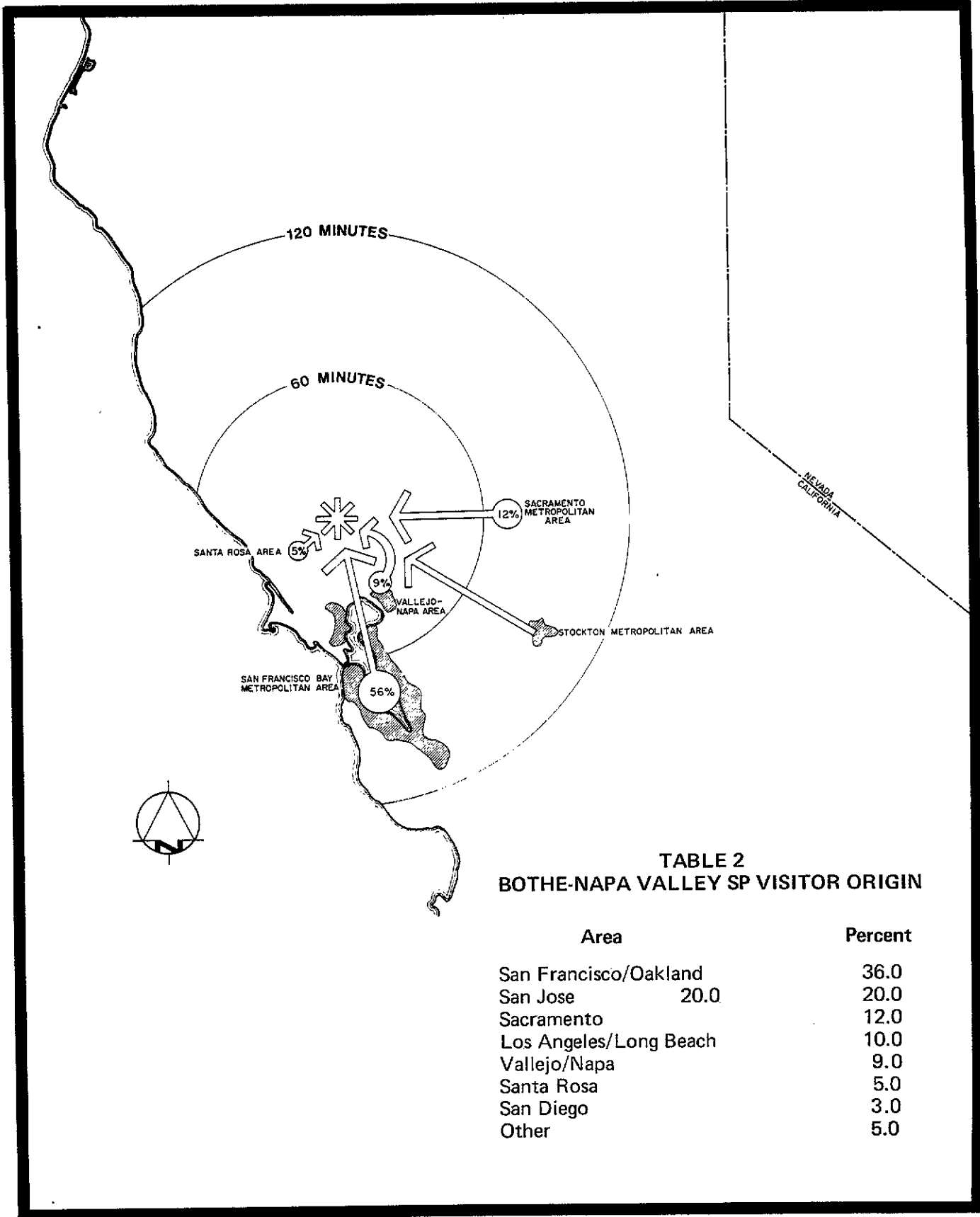
The Napa Valley wine-growing area is a major tourist attraction in the state of California. This popularity has, in turn, affected the number of visitors at Bothe-Napa Valley SP and Bale Grist Mill SHP. Many visitors who are drawn to Napa Valley to visit the wineries also stop at the parks. Visitor attendance information from the Christian Brothers' Greystone Winery, only three miles from Bale Grist Mill SHP and four miles from Bothe-Napa Valley SP, is assumed to be representative of the Napa Valley wineries. Between 1964, with 120,000 visitors, and 1974, with 225,000 visitors, the winery has shown an 88 percent increase in visitor attendance. During this same period, attendance at both state parks increased by more than 60 percent.

Unfortunately, other than the fact that attendance at the parks and the wineries both increased substantially over the last ten years, there is very little information available relating to the specific recreational interests and socio-economic backgrounds of the users of either of these park units. Limited field observation and survey work by park rangers has indicated, however, that Bothe-Napa Valley SP does experience a heavy return-visitor type of use.



Christian Brothers Winery

**FIGURE 10
 BOTHE-NAPA VALLEY STATE PARK
 PROXIMITY TO MAJOR POPULATION CENTERS**



**TABLE 2
 BOTHE-NAPA VALLEY SP VISITOR ORIGIN**

Area	Percent
San Francisco/Oakland	36.0
San Jose	20.0
Sacramento	12.0
Los Angeles/Long Beach	10.0
Vallejo/Napa	9.0
Santa Rosa	5.0
San Diego	3.0
Other	5.0

Visitor Origin

Over 50 percent of the visitors to Bothe-Napa Valley SP originate in the San Francisco/Oakland/San Jose metropolitan areas and it is likely that visitor origins for Bale Grist Mill SHP are similar to those of Bothe-Napa Valley SP.

Recent Ticketron information, which lists only *reservation* campers, was used to provide a source of data on the origin of visitors to Bothe-Napa Valley SP. This data appears in Table 2, p.56. The fact that 13 percent of the visitors come from southern California demonstrates that the Napa Valley wine country is a major tourist attraction that interests people from all over the state, and many of these tourists use the park facilities.

Unfortunately no accurate visitor origin information for Bale Grist Mill SHP is available; however, visitor origins for Bale Grist Mill SHP are probably very similar to those for Bothe-Napa Valley SP. And it may be that the Bale Mill, being a State Historic Landmark and on the National Register of Historic Places, has an even wider range of visitor origin than Bothe-Napa.

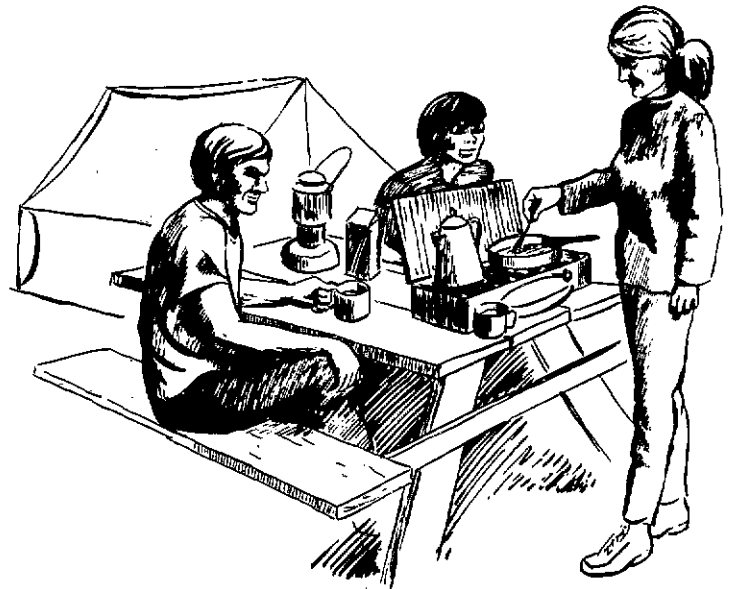
Recreational Activities

At Bothe-Napa Valley SP people enjoy both day-use and overnight-use activities; at Bale Grist Mill SHP they enjoy touring and photographing or sketching the historic mill and the surrounding grounds.

Probably the most popular day-use activities at Bothe-Napa Valley SP are swimming and picnicking. Other major day-use activities include horseback riding, hiking, historical and natural interpretation, and photography.

The favorite form of overnight use at Bothe-Napa Valley SP appears to be tent camping. However, the most recent Ticketron information available indicates a trend toward greater use of campers, motor homes, and trailers. The following is a list illustrating the percentage of different types of overnight equipment used at Bothe-Napa Valley SP during the combined two-year period of 1971 and 1972:

Type of Equipment	%	No. of Users
Tent	44.9	1,011
Trailer	22.4	503
Camper/Motor Home	18.8	423
Tent Trailer	7.9	178
No Equipment	4.2	94
Side Tent	.3	6
Other	1.5	33
Totals	100.0%	2,248



Bale Grist Mill SHP, on the other hand, lacks overnight camping facilities and its day-use activities are more passive. Visitors enjoy the scenic and interpretive qualities of the park. Informal picnicking was allowed at the park when it first opened as a state unit, but the parking congestion caused by people staying for a longer time to picnic, and the overall shortage of space made it necessary to discontinue picnicking.

Existing Problems

Present problems include: lack of facilities, lack of developable land, unsafe vehicle access, no internal connection between the parks, and non-control of the Ritchie Creek and Mill Creek watershed lands.

The chief problems that exist at the study area are:

Lack of facilities — As previously mentioned, the limited existing facilities at these parks are not sufficient to meet the increasing visitor demand.

Lack of developable land — Although there is a great demand for increased facilities, there is very little suitable land on which to place them. The steepness of most of the land at Bothe-Napa Valley SP makes development both uneconomical and harmful to the environment.

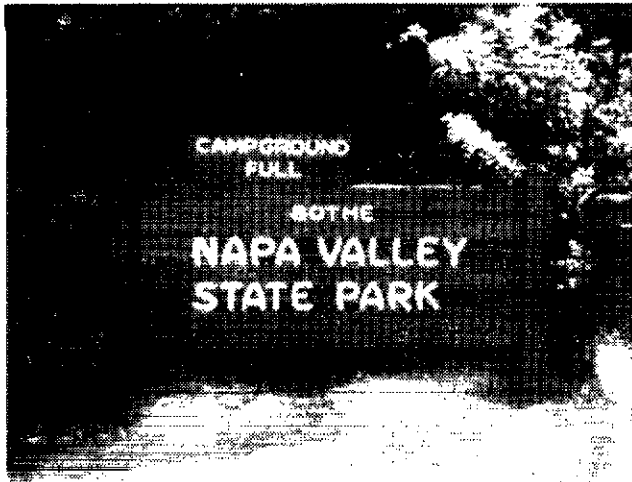
Unsafe vehicle access to the parks — Limited sight distance causes safety problems at the existing Highway 29 entrance/exit points at both state parks. Reports from local state park, highway patrol, and CALTRANS personnel indicate that the access points to both parks are now plagued with accidents and many near accidents.

No internal connection between the two parks — There is at present no internal connection between Bothe-Napa Valley SP and Bale Grist Mill SHP. Park visitors, rangers, and maintenance personnel are now compelled to use the already congested Highway 29 when traveling the one-mile distance between the two parks.

Non-control of the Ritchie Creek and Mill Creek watershed lands — Activities on private watershed lands outside the park units could potentially have a significant effect upon Ritchie Creek and Mill Creek within the park units. For example, the clearing of watershed land for agriculture could cause a siltation problem in these creeks that could, in turn, adversely affect riparian wildlife and vegetation within the park units.



Camping scene



Facilities are now inadequate

FUTURE SITUATION

Future Visitor Attendance

It is reasonably certain that attendance at state parks in general and at Bothe-Napa Valley State Park and Bale Grist Mill State Historic Park in particular will greatly increase in the future.

Using data available from experiences in the field of outdoor recreation, social trends, surveys, demand projections, and information from the Park And Recreation Information System (PARIS), future recreation patterns can be predicted with a reasonable degree of accuracy. With this data, assumptions can be made that relate to the future recreation use for the state of California in general as well as the Napa Valley area in particular.

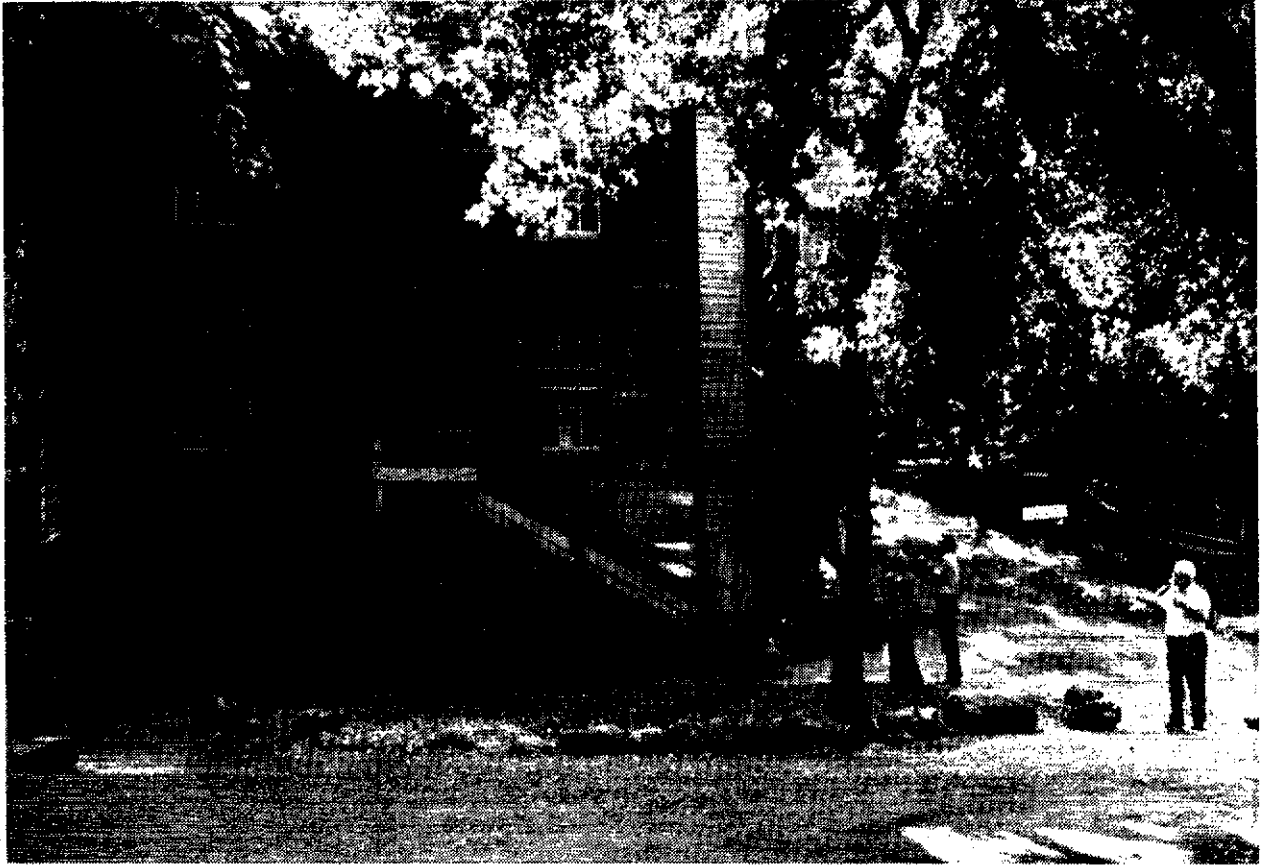
It is reasonably certain that statewide demand for recreational lands and facilities will increase because:

1. The state's population is expected to increase by more than 20 percent from 1970 to 1990.
2. Laborsaving innovations and a trend toward the shorter work week is increasing leisure and recreation time.

It is predicted that the demand for recreation opportunities will increase at a faster rate than the population growth (approximately 1.25 times the statewide population growth between 1970 and 1990).

Since the Napa Valley in general, and Bothe-Napa Valley SP and Bale Grist Mill SHP in particular are within a 1 to 2-hour travel distance from the San Francisco Bay Area (at present the fastest growing metropolitan area in the state), it is apparent that they will be subjected to increased recreational demands in the years to come. Continued growth in population accompanied by more leisure time, greater mobility, and the potential development of alternative transportation systems will continue to keep demand high for recreational activities in Napa County and at both park units.

One source of projection data is available through the Park and Recreation Information System (PARIS). PARIS collects and stores recreation demand information for small land areas referred to as geopieces, which are formed by subdividing the counties and federally owned lands according to homogenous characteristics of topography, vegetation, recreational surface water, and road accessibility. PARIS has established demand projections for 1970, 1980, and 1990 for most types of outdoor recreation activities (measured in thousands of participation days) that occur at Bothe-Napa Valley SP. PARIS projects a 71 percent increase in the total recreation demand from 1970 to 1990 for the geopiece that contains the park units. Using this figure, we can expect that approximately 110,000 visitors will desire recreation opportunities at Bothe-Napa Valley SP by the year 1990. This demonstrates not only a need for additional facilities, but also a need to establish carrying capacities for areas within the park to insure the protection of resources and promote quality recreational experiences for the visitor.



Visitors at the Mill today

Future attendance patterns at Bale Grist Mill SHP are much more difficult to project than those at Bothe-Napa Valley SP. Because Bale Grist Mill SHP is a relatively new state park (acquired in 1974), little statistical data has been compiled concerning this unit. In addition, because of several existing physical problems, present visitor attendance figures cannot be related directly to potential future attendance. These problems are:

1. The mill and granary structures are presently in a state of "arrested decay" and have not yet been converted into a working historical interpretive unit;
2. Existing non-surfaced, undesignated parking for approximately 15 cars is insufficient for present demand; and the close proximity of the parking to the mill disrupts the aesthetic values of the park;
3. The present entrance-exit to the park from State Highway 29 is hazardous to park visitors.

The park is already operating at capacity for its present parking and it can be anticipated that attendance will increase substantially if: (1) the Bale Mill, granary, and associated water supply system are restored for historical interpretation; (2) sufficient parking is provided in a better location; and (3) a new, safer entrance and exit to Highway 29 is constructed. As in the case of Bothe-Napa Valley SP, attendance at Bale Grist Mill SHP will be greatly affected by the continued popularity of the Napa Valley wineries. Care must be taken at Bale Grist Mill SHP to insure that the development of facilities does not exceed the maximum carrying capacity of the historic structures. Overcrowded conditions would impair the quality of the interpretive experience.

Future Changes, Trends, and Demands for Outdoor Recreation at These Parks

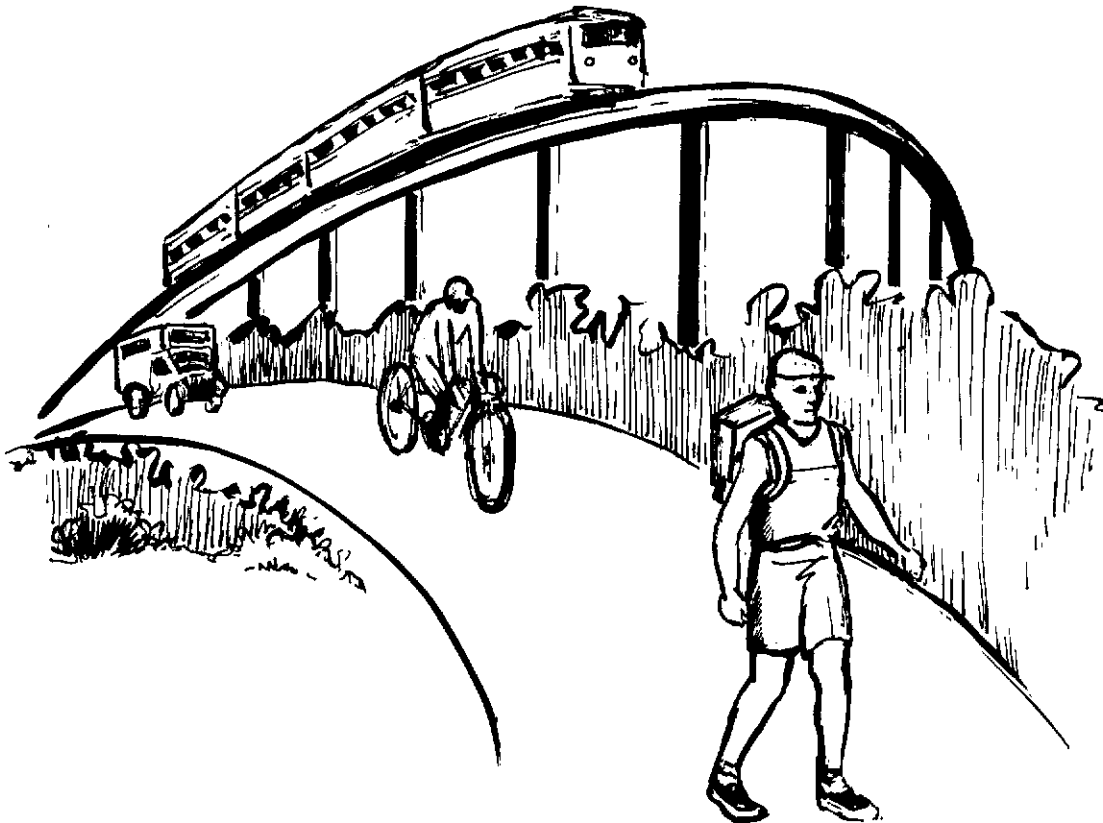
Because of their diversity of recreational opportunities, nearness to large metropolitan areas, and possible future transportation links to urban centers, Bothe-Napa Valley SP and Bale Grist Mill SHP are expected to become even more popular in the future.

Today, with an unstable economy, rising unemployment, and a continuing fuel shortage, many Californians are undergoing changes in their overall social values, and their attitudes toward recreation and leisure travel have also been affected. Because of increased costs of gasoline and occasional gasoline shortages, coupled with other economic problems, an emphasis is now being placed upon establishing and improving park experiences closer to large metropolitan populations. With costs of traveling to remote areas becoming increasingly prohibitive, much more visitor use may be expected in recreation areas closer to urban centers. In the future, it is also likely that the visitor will stay longer at one nearby park rather than travel to several faraway parks during a vacation. Much more data is needed, however, before detailed predictions of future recreation trends and demands can be made.

Future trends toward developing state parks nearer to metropolitan centers will have the additional advantage of making state park facilities more accessible to all income levels. It is anticipated that construction of parks close to metropolitan centers will allow attendance by user groups that were previously excluded by the cost of long travel distances.

Despite the possibility of continued economic problems and fuel shortages in California, it is anticipated that future visitor demand will increase at Bothe-Napa Valley SP and Bale Grist Mill SHP. This assumption is based on the following factors:

1. The park units offer a variety of activities to satisfy a wide range of environmental, educational, and historical interests. In addition, Bothe-Napa Valley SP offers many outdoor recreational experiences, such as camping, picnicking, hiking, horseback riding, and swimming. The park units also offer a desirable weekend destination point for urban bicyclists.



2. The park units are located near three large metropolitan areas, the San Francisco Bay Area, Sacramento, and Stockton, and the park facilities are within a desirable traveling distance for both day and overnight recreation use.
3. Having a nearly level floor, the Napa Valley is well suited to all forms of transportation. With the continued popularity of "excursions to the wine country" there is a good possibility that the Napa Valley would be included in a mass transit system to the San Francisco Bay Area via a bus line, train, or some other transportation form. In the future, a secondary link to the Napa Valley might also be established if a mass transit system is built connecting Sacramento and the San Francisco Bay Area.
4. It can be expected that proposed improvement of present facilities and the development of new facilities will encourage increased use of these park units.

Regional Planning

A number of regional plans have been developed that relate to the state parks and may potentially affect them, but Napa County's Park and Recreation Plan will, if implemented, have the greatest direct immediate impact upon the subject units. (It has not yet been submitted to the county's voters.)

The following is a summary of various city, county, state, and federal plans, and elements of these plans that may have a bearing upon Bothe-Napa Valley SP and Bale Grist Mill SHP:

City and County Plans

1. *Napa River Linear Parkway – A Multi-purpose Environmental Project of Federal, State and Local Agencies.* (undated).

Deals primarily with the city of Napa and appears to have no significant impact upon the park units.

2. *Preliminary General Plan of the Lake Berryessa Area, 1970.* July 1970.

Indicates . . . "recreation demand as reflected by the use of existing facilities (at Lake Berryessa) is doubling about every five years; and will eventually level off to 7% annual increase. Appropriate facilities must be provided throughout the Berryessa Region to satisfy this demand in the future."

Lake Berryessa, located east of Bothe-Napa Valley SP and Bale Grist Mill SHP, now provides 99 percent of the camp units, and 98 percent of the picnic tables available in Napa County. Therefore, it is conceivable that any future development of recreational facilities or lack of development at Lake Berryessa might have some effect upon the visitor attendance at Bothe-Napa Valley SP. It is doubtful, however, that the effect will be great, since Lake Berryessa primarily attracts water-oriented recreationists and Bothe-Napa Valley SP and Bale Grist Mill SHP do not offer the same types of water-based activities.

3. *Land Use Element – Napa County General Plan.* (as amended December 1975).
 - a) *Urbanization* – Identifies those areas suited for urbanization and allocates ample land to serve the urban activities of a projected year 2000 resident population of approximately 115,000 persons.

- b) *Ecologically Sensitive Areas* — Recommends the enactment and enforcement of regulations that will limit development in ecologically sensitive areas (i.e., streamside areas, steep slopes, etc.).
- c) *Limited Development Areas* — Recommends the retention in large parcel sizes of watershed supply areas and the protection of natural areas having slopes of 15 percent or more for airshed, watershed, wildlife habitat, nature areas, and limited outdoor recreation, as well as for fire and erosion protection, and seismic safety.
- d) *Open Space Areas* — Recommends preservation of suitable land for greenbelts, forest, recreation, flood control, natural beauty, and habitats for fish, wildlife, and wild vegetation; and that the county encourage management of these areas in ways that promote wildlife habitat renewal, diversification, and protection.
- e) *Open Space Character* — Recommends the retention of the character and natural beauty of Napa County by the preservation of open space, especially in areas close to cities (and not scheduled for urban development), hilly areas, and outlying rural areas.
- f) *Water Supply Protection* — Recommends protection of public and private water supply sources from contamination or overdrafts.
- g) *Cultural Heritage* — Recommends development of regulations and programs to preserve historical buildings, areas of historical significance, areas of scenic attractiveness, and areas of exceptional topography.
- h) *Recreational Facilities* — Recommends planning for and reserving land for recreational facilities, and encouraging private recreational development and other open space uses that are beneficial to the residents of Napa County as well as visitors to the county.
- i) *Scenic Transportation Routes* — Recommends encouraging the development of a system of scenic roads, bicycle routes, and hiking trails connecting existing cities and other local population centers to outdoor recreation and open space resources and facilities.
- j) *Transportation* — Recommends promoting the development of public transportation facilities for and between urban areas within the county for tourism, to provide more efficient service, to minimize service, and to minimize the congestion and adverse ecological effects of heavy automobile traffic.
- k) *Agricultural Preserve* — Recommends initiation of studies to evaluate means, methods, and disadvantages of placing the existing agricultural preserve plus potential agricultural acreage under permanent land use protective controls.
- l) *Prime Agricultural Lands* — Recommends reserving prime agricultural lands for agriculture use.
- m) *Water Supply* — Recommends initiation of studies to develop comprehensive understanding of the potentials and deficiencies of surface and underground water supplies in Napa County.

With the exception of possible conflicts that may arise between preserving watershed lands and natural areas and promoting new agriculture, the *Land Use Element – Napa County General Plan* appears to be very much in harmony with the Department's planning and management goals for Bothe-Napa Valley SP and Bale Grist Mill SHP.

4. *Napa County's Park and Recreation Plan* (January 1976).

- a) Concludes that in 1970 the residents of Napa County generated less than half of the nearly 15 million participation days of outdoor recreation activity in the county. By the year 2000, resident participation will almost double, and is expected to account for 47 percent of total participation.
- b) Most of the recreation activity involved visitors to wineries and Lake Berryessa, which tended to overload State Highways 29 and 121 and 128.
- c) Concludes that those recreational opportunities which currently are in shortest supply in Napa County are hiking, horseback riding, bicycling, picnicking, and study and enjoyment of the natural landscape.
- d) Notes that the role of state government as a supplier of park and recreation areas and facilities in Napa County is to preserve and, as appropriate, develop areas having natural or historic values that will benefit the people of the entire state.
- e) Comments that, although state landholding in Napa County is considerable, the opportunities for recreation experiences on these lands are far below the potential of these lands for meeting user demands.
- f) Suggests that Napa County play a very strong role in encouraging the state and federal governments to expand greatly the recreation opportunities on state and federal lands to meet non-resident demands.
- g) Indicates that the existing state parks in Napa County cannot be expected to meet county day-use needs and that the state's major level of responsibility centers on overnight, weekend, and vacation requirements.
- h) Suggests that one approach might be for the county to expand day-use opportunities for county residents by contributing financial support for the construction of trails, additional picnic sites, and other facilities at Bothe-Napa Valley SP in exchange for commitments by the state to develop facilities at Sugarloaf Ridge and Robert Louis Stevenson State Parks to meet the needs of non-residents.
- i) Suggests that the Silverado Trail (from the city of Napa to State Highway 29 north of Calistoga) and State Highway 29 (from Napa to the Lake County line) be designated and protected as "County Scenic Roads."
- j) Proposes a comprehensive system of equestrian and hiking trails (see Vicinity Map, p. 5) throughout the county. Suggests as a candidate for initial development an approximately 12-mile partial loop from St. Helena to Bothe-Napa State Park, via Sugarloaf Ridge State Park and Sugarloaf Ridge. Staging areas would be at Camp Park in St. Helena and near the entrance to Bothe-Napa State Park along Highway 29.
- k) Proposes a comprehensive system of bicycle routes/trails. Some of these proposed route/trails include: (1) A Napa Valley loop along Silverado Trail and Highway 29. Traffic volumes on these roads are sufficiently high to warrant total separation of the trail from the roadway. An alternative to a location along Highway 29 between Calistoga and St. Helena would be to locate a bikeway within the S.P. Railroad right-of-way; and, (2) A Larkmead Road cross-valley connector between Highway 29 and Silverado Trail.

- l) Recommends the development of additional facilities at Bothe-Napa Valley SP. Recommends, in particular, the provision of additional picnic areas and trails which would link with Sugarloaf Ridge State Park.

Napa County's Park and Recreation Plan was prepared by a private consulting firm, at the request of the Napa County Board of Supervisors, in order "to determine the recreation needs of County residents, the extent to which the County has legitimate responsibility to meet those needs, and to develop, as appropriate, a plan and program to meet those needs." The plan, to date, has been reviewed by county officials and citizens and has been recommended for adoption by the Napa County Parks and Recreation Committee. The Board of Supervisors must still approve the plan and ultimately the Napa County voters (in approving or disapproving a funding proposal to implement it) will decide the final fate of the plan.

Napa County's Park and Recreation Plan appears to be very much in harmony with the General Development Plan that is being proposed by the Department for Bothe-Napa Valley SP and Bale Grist Mill SHP. The facilities proposed for these park units correspond to those recreational opportunities that are in shortest supply in Napa County. In addition, the various scenic roads and county-wide bike, equestrian, and hiking trails proposed in the county's plan all tie in very nicely with the park units.

State Plans

1. *Preliminary California Recreational Trail and Hostel Plan.* (undated).

Proposes a statewide corridor system linking state park units throughout California. The locations of these corridors were determined by analyzing the general relationship among California's natural resources, their accessibility, and the public's need for them.

One of these proposed trail routes, the North Coast Range corridor, would, if implemented, link Bothe-Napa Valley SP and Bale Grist Mill SHP to other state parks and hostels via a hiking/biking/equestrian trail network. In addition, it would establish a readily accessible recreational route linking the Napa Valley wine country with the San Francisco Bay Area.

2. *The Sierra Foothill and Low Coastal Mountain Province Landscape Preservation Study.* September 1973.

- a) Proposes Bothe-Napa Valley SP as a positive resource of statewide significance for the preservation of its scientific and educational values.
- b) Proposes the Mayacamas Mountain Range as a positive resource of statewide significance for the preservation of its vegetative and geologic, scientific, educational, and scenic values.

3. "Robert Louis Stevenson State Park General Plan for Use of the Land." June 1975.

Robert Louis Stevenson SP is located northeast of Bothe-Napa Valley SP and Bale Grist Mill SHP, and is in both Lake and Napa counties. Access to the park is gained on two Napa County roads, Oat Hill Mine Road and Livermore Road. The Department of Parks and Recreation has no plans for construction or use of these lands at this time. Existing recreational use of these lands will most likely be allowed to continue with additional control by this Department to restrict vehicles to existing roads. While horseback riding is a popular use, hiking and off-road vehicle driving are the main uses of these lands at present.

There is a possibility that future development of recreational facilities at Robert Louis Stevenson SP might relieve Bothe-Napa Valley SP of some of the recreational demand, and that the two parks might someday be linked by a hiking and equestrian trail.

4. *Monticello Reservoir (Lake Berryessa) Solano Project California Public Use Plan*. October 1959.

Deals primarily with the recreational development of Lake Berryessa. Like the county plan for Lake Berryessa discussed earlier, it anticipates increasing recreational demand from out-of-county residents and proposes appropriate expansion of facilities to meet that demand. Again, the development or lack of development of these proposed recreation facilities might have an effect upon visitor attendance at Bothe-Napa Valley SP.

5. *Supplemental Watershed Work Plan No. 1 – Napa River Watershed Report*. October 1964.

This plan supersedes an earlier plan entitled *A Watershed Work Plan for the Napa River Watershed* and deals with recreation-oriented flood control structures in the Napa River watershed. The plan proposes the construction of a dam at Redwood Creek located immediately west and adjacent to the city of Napa. The plan states: "investigations for the original Napa River Work Plan showed that no dam other than the Redwood Creek Dam showed promise of justification as a floodwater retarding structure. cursory consideration of other sites for dual-purpose use confirmed this conclusion, leaving the Redwood Creek development as the only reasonable prospect for reservoir-based recreation."

Although this plan proposes the development of day-use recreation facilities in conjunction with the proposed dam and reservoir, these facilities would be water-oriented and would probably have little effect upon visitor demand at Bothe-Napa Valley SP and Bale Grist Mill SHP.

6. *The Plan for Recreation Development – Lake Berryessa, California, Review Draft*. (undated).

Gives a conceptual development plan for recreational facilities at Lake Berryessa and attempts to identify and correct problems associated with those public and private facilities which have already been developed around the lake. The previous comments concerning the possible effects that developing recreational facilities at Lake Berryessa will have upon Bothe-Napa Valley SP and Bale Grist Mill SHP are also applicable to this plan.



LAND USE ANALYSIS

What intensities of use will be allowed on the park lands?

What is the proposed land use within the study area?

What is the existing land use within the study area?

Allowable Use Intensity

Steep slopes, shallow soils, and other environmental and developmental restrictions indicate that most of the existing park lands are suitable for only low use intensity; only about ten percent of the park lands are suitable for moderate or high use intensities (see Allowable Use Intensity Map, Fig. 11).

Using the data of the resource inventory and analysis, it is possible to determine allowable use intensities for the park lands. The allowable use intensity or recreational carrying capacity of a given area may be defined as the maximum number of recreationists that an area can support without sustaining excessive damage to its natural resources or degrading the quality of its visitor's recreational experience. This definition assumes that all land has an *Intrinsic* carrying capacity. However, other factors, such as management policies and types and numbers of developed facilities, all play major roles in determining the potential, *managed* carrying capacity for a given area. For example, a developed trail with appropriate signing and park personnel supervision may permit moderate use intensity of a previously undeveloped, low use intensity area, without harming the resources within the area or lessening the visitor's recreational experience.

Although the allowable use intensities for Bothe-Napa Valley SP and Bale Grist Mill SHP have been initially based largely on existing intrinsic resource factors, it should be noted that some of these capacities may eventually increase as a result of future management and development-related factors.

The following allowable use intensities are based largely on existing intrinsic resource factors and should be considered as broad, land management guidelines only.

High Use Intensity (Twenty or more persons per acre)

Approximately 135 acres are considered suitable for high use intensity. These lands are largely flat chaparral covered areas with limited resource values. If made accessible, these lands could accommodate a high density of 20 or more persons per acre, and a variety of recreational development.

Moderate Use Intensity (Eight to twenty persons per acre)

Only 40 acres are considered suitable for moderate use intensity. These lands are gently sloped, but possess vegetative or historic resources that dictate a somewhat lower density of use than those described in the previous paragraph. Recreational development that would accommodate 8-20 persons per acre is suitable in these areas.

Low Use Intensity (Less than eight persons per acre)

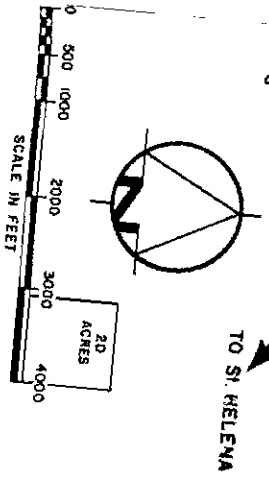
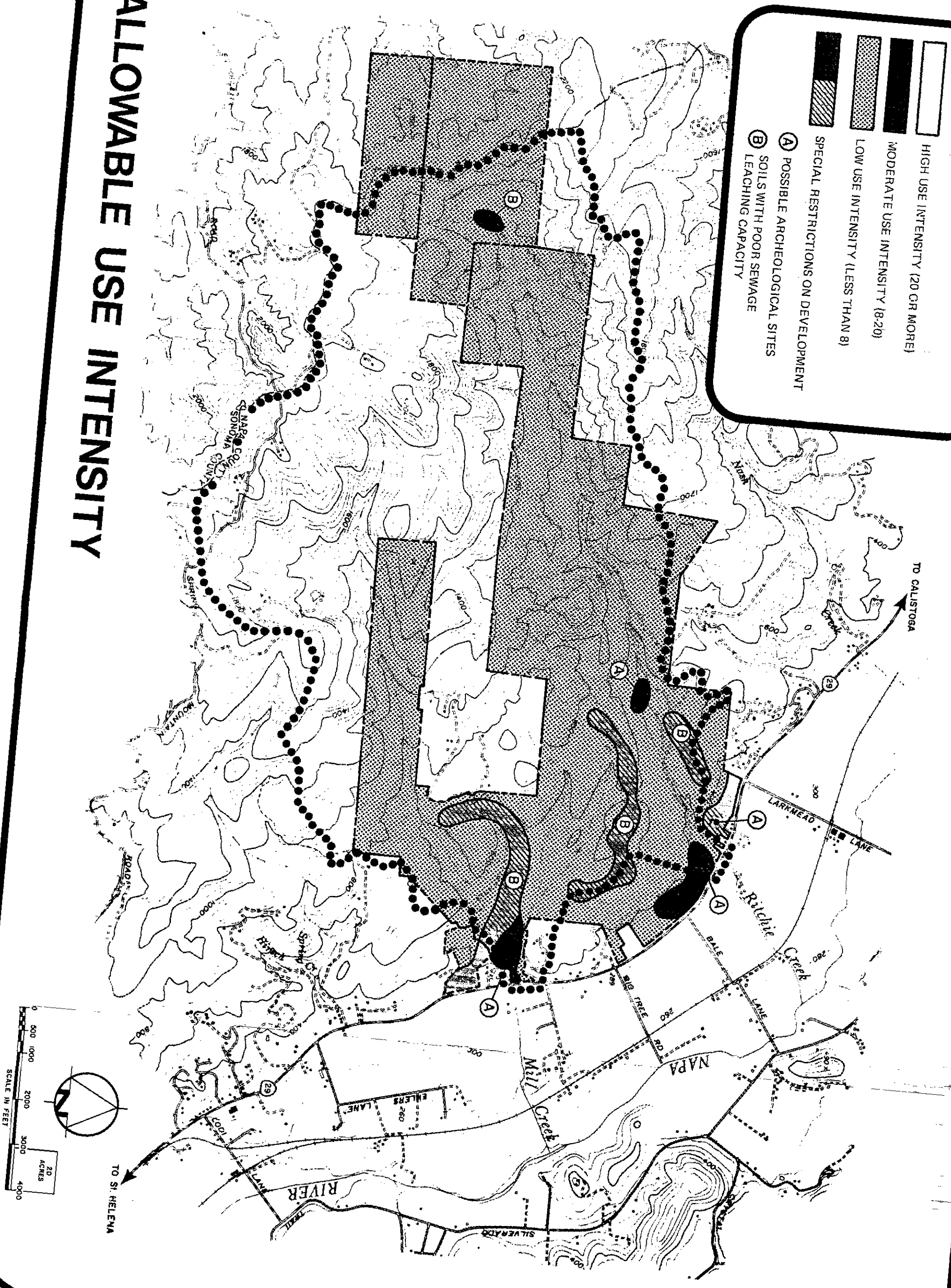
The remaining 1,500 acres are considered suitable for only low use intensity. Some of these lands may contain rare, unique, or fragile resources that could be destroyed by a higher intensity of use; however, most are classified for low intensity use because of their steep slopes and unstable soils. These lands are only suitable for trail-type recreational development.

Special Restrictions on Development

Areas with special restrictions on development are indicated on the Allowable Use Intensity Map, Fig. 11. Areas designated by the letter "A" are areas suspected of containing archeological sites. Before any development, these areas should be investigated to determine their archeological value and what preservation measures need to be taken (see "Archeological Resources", p.46).

Areas designated by the letter "B" are areas believed to have poor sewage leaching capacity. Extra costs can be anticipated in developing these areas if long runs of pipeline to carry sewage to more permeable leaching soils are required (see "Soils", p.16).

ALLOWABLE USE INTENSITY



LEGEND

FIGURE 11

- HIGH USE INTENSITY (20 OR MORE)
- MODERATE USE INTENSITY (8-20)
- LOW USE INTENSITY (LESS THAN 8)
- SPECIAL RESTRICTIONS ON DEVELOPMENT
- POSSIBLE ARCHEOLOGICAL SITES
- SOILS WITH POOR SEWAGE LEACHING CAPACITY

DRAWING NO. 15038	SHEET NO. OF	BOTHE-NAPA VALLEY STATE PARK & BALE GRIST MILL STATE HISTORIC PARK ALLOWABLE USE INTENSITY	RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION	REVISIONS DATE DESIGNED DRAWN JUNE 1976 CHECKED
APPROVED _____			DATE _____	

Existing Land Use

Within the study area are agricultural, low density, residential and commercial lands, and a small area of land developed for recreational uses, but the majority of the area is comprised of undeveloped watershed lands (see Existing Land Use Map, Fig. 12).

Agricultural Lands — Excluding a small abandoned upland orchard near the county line, the agricultural land within the study area is planted almost entirely in grapes. Many of the upland vineyards are planted on steep grades and have a high erosion potential. Therefore, if the environmental values of the neighboring state park lands are to be protected, it is essential that private owners of these lands exercise proper land management policies to prevent excessive runoff, soil erosion, and creek siltation.

Low Density Residential and Commercial Lands — With the exception of one small roadside business located on Highway 29, all of the lands within this category are residential. The residential lands consist of medium to large land parcels, primarily occupied by one-story, single family dwellings. Some limited grazing of horses and sheep occurs on a few of the larger residential parcels and occasionally becomes an administrative problem for the park units.

Undeveloped Watershed Lands Under Private Management — In general, these lands have steep slopes and shallow soils, and are covered with large trees. The large investment required and potential environmental damage involved in clearing and developing these steep, unstable lands indicate that most of this area should be left as undeveloped watershed and used only for low intensity recreational activities such as hiking and equestrian use.

Undeveloped Watershed Lands Under State Park Management — At present, 99 percent of Bothe-Napa Valley SP is undeveloped; only a small portion (approximately 20 acres) of the park is being used for administrative facilities and intensive overnight and day use. On the other hand, the land comprising Bale Grist Mill SHP (approximately 3/4 acre) receives a higher density of use than that of Bothe-Napa Valley SP, but the visitor activities at the SHP are of a more passive nature. Activities now occurring on these state park lands are discussed in the section entitled "Recreational Activities."

Proposed Land Use

Approximately 90 percent of the lands within the study area are recommended for natural preservation/open space/watershed protection and limited agriculture. The remaining lands are proposed for historical and archeological preservation and interpretation or for recreational development. (See Proposed Land Use Plan, Fig. 13.)

The proposed land use plan is the culmination of all of the material that has been presented in the preceding sections of this report. Through study of this data, and through a graphic "overlay" process involving a compilation of all of the various resource inventory and analysis mapping, a comprehensive proposed land use plan has been derived. The following are brief descriptions of the major categories of land use that are proposed for the study area:

Natural Preservation/Open Space/Watershed Protection and Limited Agriculture

This category includes both state and private lands. It is proposed that lands under state park ownership be managed in a natural state with only minimal recreation development, such as hiking, bicycling and equestrian trails, and appropriate interpretation facilities. Trails in the vicinity of rare and endangered plant species should be monitored to insure that park visitors do not stray from the developed trail.

Private lands in this category require management that is in harmony with their neighboring state park lands. It is proposed that these private lands be managed in accordance with the *Napa County Land Use Plan 1975-2000*. The county's plan now designates these lands for open space, watershed protection, and agriculture. In addition, county timber cutting, riparian cover, and erosion control ordinances govern these areas. It is felt that as long as present Napa County land management policies remain in harmony with those of the state park lands, and are adhered to by the private owners and enforced by the county, these lands can be left under private management. Should these lands become endangered by changes in county management policies or private abuse, their management by the state should be considered.

Historical and Archeological Preservation and Interpretation

This category includes only state lands. The historical areas contain the site of the White Church, the Pioneer Cemetery and the Bale Grist Mill, the granary, and the site of the mill's water supply system (see Cultural Resources Map, Fig. 9 for approximate locations). Interpretive facilities and/or personnel should be provided for these areas, and they should receive special attention by park administrative staff to insure that all historical resources are protected.

The areas adjacent to Ritchie Creek and Mill Creek that may be of archeological value (see Cultural Resources Map, Fig. 9 for approximate locations) should receive special supervision to insure that park visitors do not attempt to disturb any archeological sites. Before any development takes place, they should be investigated and the necessary preservation measures carried out. An appropriate interpretive program should be considered.

Recreational Development

This category includes only state lands. These lands are proposed for the development of service, administrative, and day and overnight-use recreational facilities. The suggested locations for these various facilities appear on the Proposed Land Use Plan, Fig. 13. The amount of recreational use that should be accommodated in these areas has already been discussed in the preceding section, "Allowable Use Intensity." The "General Development Plan" will discuss in more detail the Department of Parks and Recreation's plan for the actual development of these areas.



Indian communal mortar rock

LEGEND

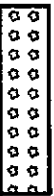




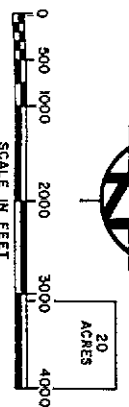
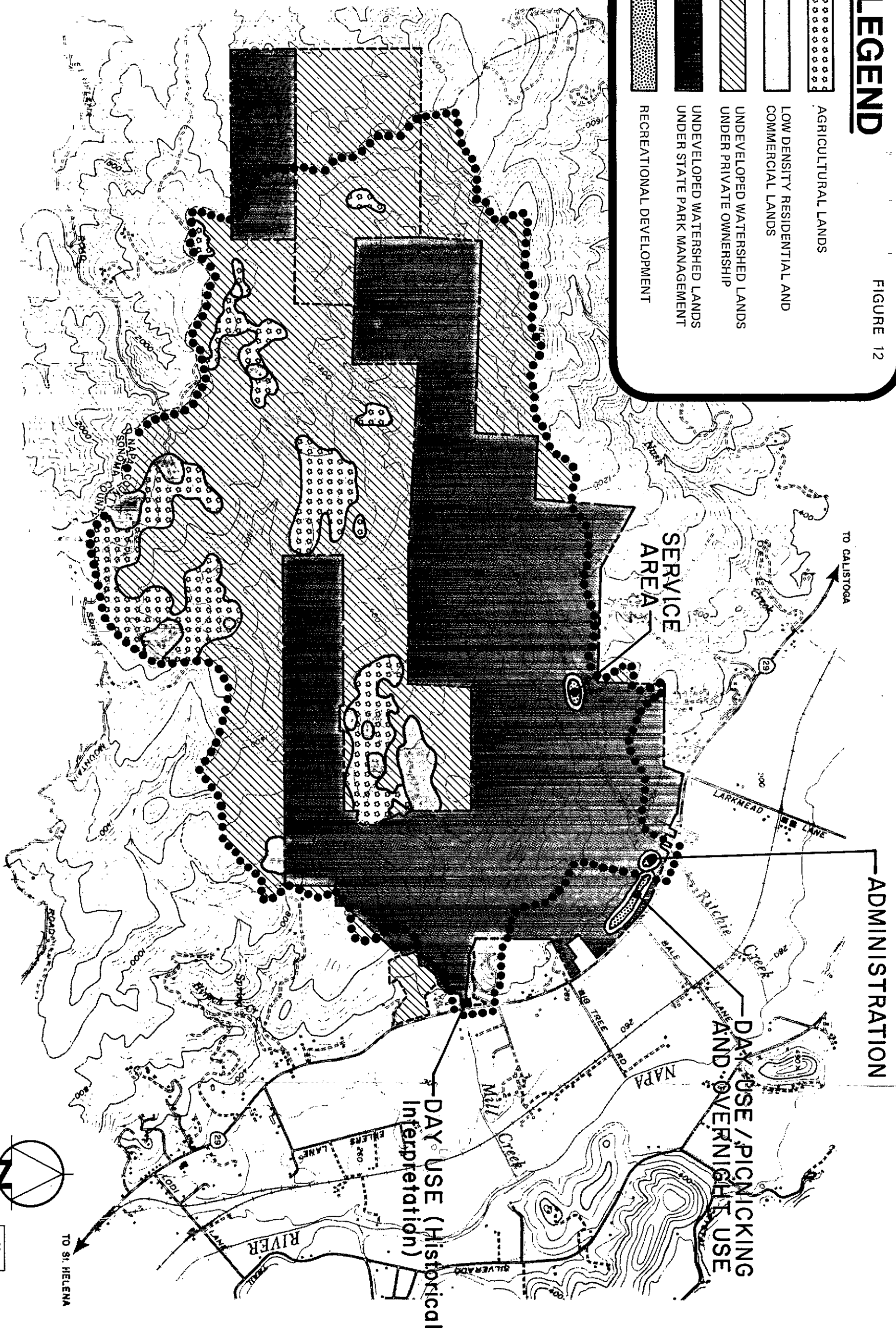
-  AGRICULTURAL LANDS
-  LOW DENSITY RESIDENTIAL AND COMMERCIAL LANDS
-  UNDEVELOPED WATERSHED LANDS UNDER PRIVATE OWNERSHIP
-  UNDEVELOPED WATERSHED LANDS UNDER STATE PARK MANAGEMENT
-  RECREATIONAL DEVELOPMENT

FIGURE 12





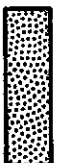
EXISTING LAND USE

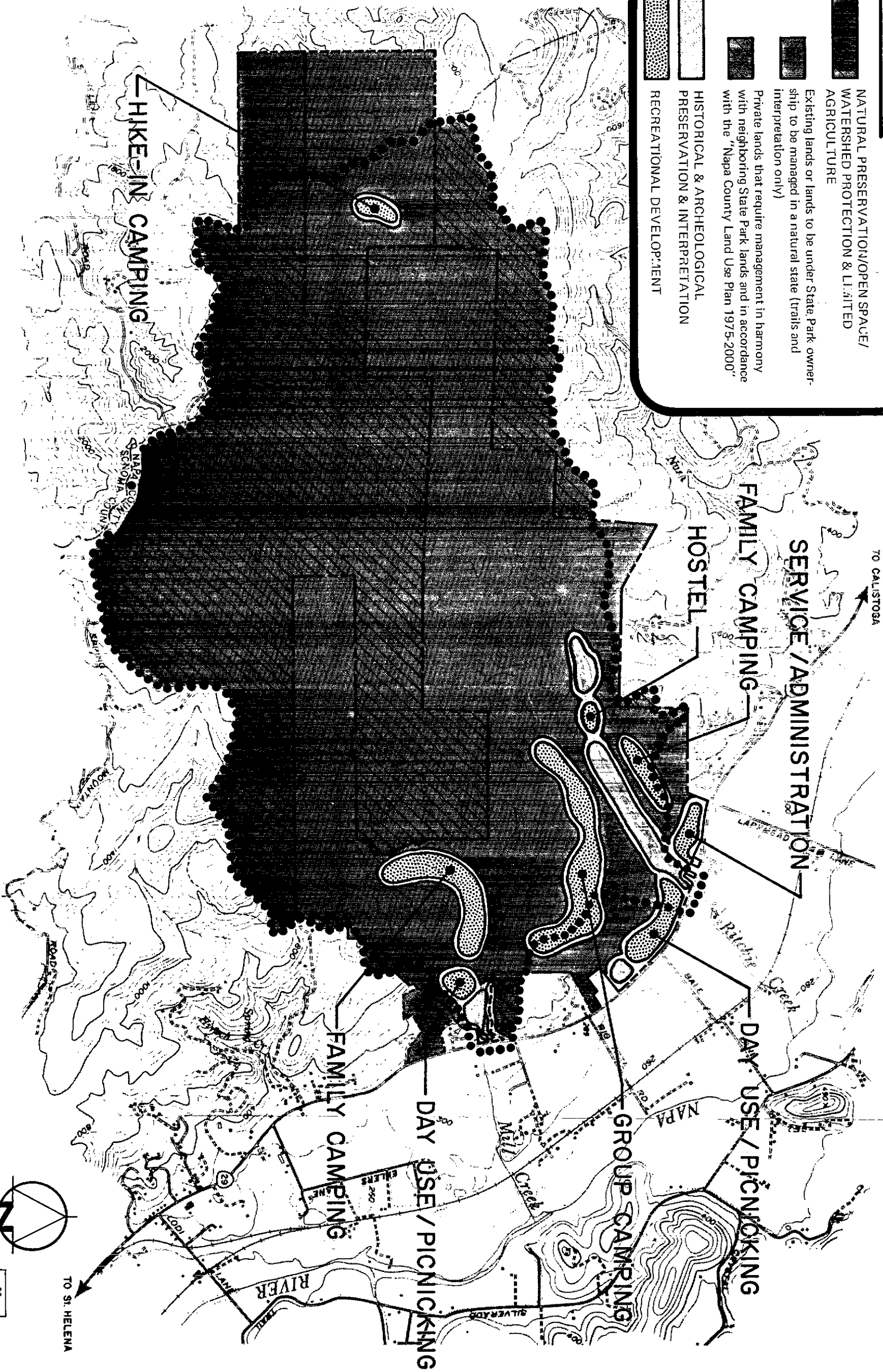


DRAWING NO. 15038	BOTHE-NAPA VALLEY STATE PARK & BALE GRIST MILL STATE HISTORIC PARK EXISTING LAND USE	RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION		REVISIONS	DATE	DESIGNED
		APPROVED _____	DATE _____			DRAWN JUNE 1976 CHECKED

LEGEND

FIGURE 13

-  NATURAL PRESERVATION/OPEN SPACE/
WATERSHED PROTECTION & LIMITED
AGRICULTURE
-  Existing lands or lands to be under State, Park owner-
ship to be managed in a natural state (trails and
interpretation only)
-  Private lands that require management in harmony
with neighboring State Park lands and in accordance
with the "Napa County Land Use Plan 1975-2000"
-  HISTORICAL & ARCHEOLOGICAL
PRESERVATION & INTERPRETATION
-  RECREATIONAL DEVELOPMENT



PROPOSED LAND USE

DRAWING NO. 15038	BOTHE-NAPA VALLEY STATE PARK & BALE GRIST MILL STATE HISTORIC PARK PROPOSED LAND USE	RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION		REVISIONS	DATE	DESIGNED
		APPROVED _____ DATE _____				DRAWN JUNE 1976 CHECKED

CENTRAL DEVELOPMENT PLAN

What is the plan for development?
What are the opportunities and the challenges
in the world today?
What are the challenges of development in the
world today?



Wake Robin

GENERAL DEVELOPMENT PLAN

The plan for development is a comprehensive, long-range, master plan for the development of recreational facilities at Bothe-Napa Valley SP and Bale Grist Mill SHP. Recreational development proposed in the plan includes additional family camping and picnicking facilities, new group camping and picnicking facilities, new hiking and equestrian staging facilities, a new hike-in camp, additional hiking and equestrian trails, and new historical interpretation facilities (see General Development Plan, Fig. 14). All development will be implemented in phases (see Sequence of Implementation. p. 86).

Introduction

The General Development Plan has been derived from the criteria established in the preceding chapter (see Allowable Use Intensity and Proposed Land Use) and from the study and analysis of the material presented in all of the previous chapters contained in this report. The plan delineates general routes and appropriate land areas for important development elements such as circulation and parking, day and overnight-use facilities, and service and administrative facilities.

The plan also suggests an outline for implementation. It is proposed that the plan be implemented through a logical sequence of phased developments (see Sequence of Plan Implementation).

It should be noted that quantitative numbers of facilities (e.g., 75-100 picnic units) appearing in the following text should only be used as general estimates of development potential and need. Actual figures may vary somewhat in response to more detailed site survey work or as a result of unforeseen changes in recreational trends and demands, or new recreation area management techniques. It is imperative that public-use patterns at Bothe-Napa Valley SP and Bale Grist Mill SHP be frequently reassessed to determine the most appropriate levels and types of development.

The General Development Plan, Fig. 14 , graphically illustrates the proposed plan for development and the following text describes the elements shown on Fig. 14 .

Bothe-Napa Valley SP/Ritchie Creek Area

North Entrance Station

1. Access to the entrance station will be off Highway 29, directly across from Larkmead Lane. The new entrance will provide the visitor with safe sight distance and will, it is hoped, encourage visitors to consider using the Larkmead/Silverado Trail route rather than reaching or leaving the park solely via Highway 29. The entrance station will be located far enough into the park to allow an adequate vehicular backup area. A turnaround will be provided for persons who decide they do not wish to enter the park. Native trees and shrubs will be planted as necessary to screen the service area or neighboring private lands and to visually enhance the park entrance.

Equestrian Staging Area

1. The equestrian parking area will accommodate approximately 15 vehicles with horse trailers. Some overflow parking for additional vehicles will also be provided.
2. One small comfort station will be located adjacent to the staging area.
3. Existing vegetation will be retained and additional native trees and shrubs will be planted to screen the parking and enhance the appearance of the area.

Day-Use Area (North)

1. Parking for approximately 40 to 50 cars will be provided in the area now occupied by the existing park entrance. This parking will accommodate walk-in picnickers and swimmers during the day, and program center visitors in the evening. Parking will be flexibly designed to accommodate buses or other types of larger vehicles.
2. Approximately 75 to 100 family picnic units with tables and stoves will be provided. Some of these units will be individual "drive-in" type units, while others will be individual and grouped "walk-in" type units. More detailed site study will determine the specific numbers and distribution of these different types of picnic units.
3. Three comfort stations will be constructed. One will be located adjacent to the proposed hiking staging area (in the vicinity of the existing area office); a second will be located in the vicinity of the proposed Historical Area (North) parking; and a third will replace the existing combination restroom/shower building.
4. The existing swim area will be retained and improvements made as necessary. A new minimal restroom facility will be constructed within the confines of the swim area.
5. A hiking staging area with parking for approximately 20 vehicles will be provided in the vicinity of the existing area office and ranger residences. Existing stairs leading down to the present park entrance will be improved, thus enabling the staging area parking to double as picnic, swim, or program center overflow parking, and vice versa.
6. A program center consisting of seating built inconspicuously into the hillside opposite the present park entry will provide an outdoor facility for campfire and interpretive programs. This facility will seat approximately 75 to 100 persons.
7. The existing entrance will be closed and appropriate native trees and shrubs will be planted to screen out Highway 29. All existing wood buildings will be evaluated for possible continued use and will then be removed or relocated. Existing trailers will be relocated to the new service area.

Family Camping (North)

1. This family camping area will provide approximately 40 campsites for recreational vehicles such as campers or trailers. Ten smaller sites will be provided to accommodate motorcyclists, bikers, or hikers. Tables, food lockers, and stoves will be provided at all 50 campsites.
2. Two combination restroom buildings with showers and washbasins will be provided at centralized locations.
3. Significant existing vegetation will be retained and augmented with appropriate plantings of native shrubs and vegetation. Special emphasis will be placed on planting shade trees.

Potential Biker/Hiker Hostel

The possibility of converting the newer of the two existing maintenance buildings into a European style biker/hiker dormitory will be investigated. In conjunction with this proposal, the use of the former Coit orchard across the creek from the former Coit home site as a small picnic area, and the use of the home site for historical interpretation will also be explored. However, the future of these proposals, will depend heavily on the final recommendations of the State Department of Parks and Recreation's current hostel feasibility study.

LEGEND

- EXTENT OF RITCHIE CREEK AND MILL CREEK WATERSHEDS
- LANDS UNDER STATE PARK MANAGEMENT OR LANDS TO BE UNDER STATE PARK MANAGEMENT: (Funds for these lands are available from the State Beach, Park, Recreation and Historic Bond Act of 1974.)
- ROADS AND PARKING
- VEHICULAR ROADS WITH PARKING AREAS
- TRAILS
- HIKING AND BICYCLE TRAILS (No Equestrians)
- HIKING AND EQUESTRIAN TRAILS (No Bikers)
- HIKING TRAILS (No Bikers or Equestrians)
- SERVICE ACCESS TRAILS (No Hikers, Bikers, or Equestrians)
- POTENTIAL TRAIL - Easements need to be negotiated

FIGURE 14

SERVICE AREA

- MAINTENANCE YARD AND BUILDING
- AREA OFFICE AND TEMPORARY HELP DORMITORY (CONVERT EXIST. BUILDING)
- RANGER RESIDENCES
- PLANTING (NATIVE TREES AND SHRUBS) TO CALISTOGA

FAMILY CAMPING (NORTH)

- CAMPSITES (NO HOOK-UPS)
- SANITARY FACILITIES (WITH SHOWERS)
- PLANTING (NATIVE TREES AND SHRUBS)

POTENTIAL BIKER/HIKER HOSTEL

- DORMITORY (CONVERT EXIST. BUILDING)
- PICNIC AREA
- INTERPRETATION

NORTH ENTRANCE STATION

- KIOSK
- TURNAROUND
- PLANTING (NATIVE TREES AND SHRUBS)

EQUESTRIAN STAGING AREA

- PARKING
- SANITARY FACILITIES
- PLANTING (NATIVE TREES AND SHRUBS)

DAY-USE AREA (NORTH)

- PARKING
- FAMILY PICNIC UNITS
- SANITARY FACILITIES
- SWIM AREA (RETAIN EXISTING POOL)
- HIKING STAGING AREA
- PROGRAM CENTER
- CLOSE EXIST. ENTRANCE AND REMOVE EXIST. BUILDINGS

HISTORICAL AREA (NORTH)

- INTERPRETATION
- PROTECTIVE FENCING
- PARKING

HISTORICAL AREA (SOUTH)

- RESTORATION OF BALE MILLS GRANARY, PLUME AND WATER SYSTEM
- INTERPRETATION
- PARKING (REMOVE EXISTING)
- SANITARY FACILITIES (REMOVE EXISTING)
- PLANTING (NATIVE TREES AND SHRUBS)

SOUTH-ENTRANCE STATION

- KIOSK
- TURNAROUND
- TRAILER SANITATION STATION
- PLANTING (NATIVE TREES AND SHRUBS)

DAY-USE AREA (SOUTH)

- PARKING (INCLUDES HISTORICAL AREA OVERFLOW)
- FAMILY PICNIC FACILITIES
- SANITARY FACILITIES
- HIKING STAGING AREA
- PLANTING (NATIVE TREES AND SHRUBS)

FAMILY CAMPING (SOUTH)

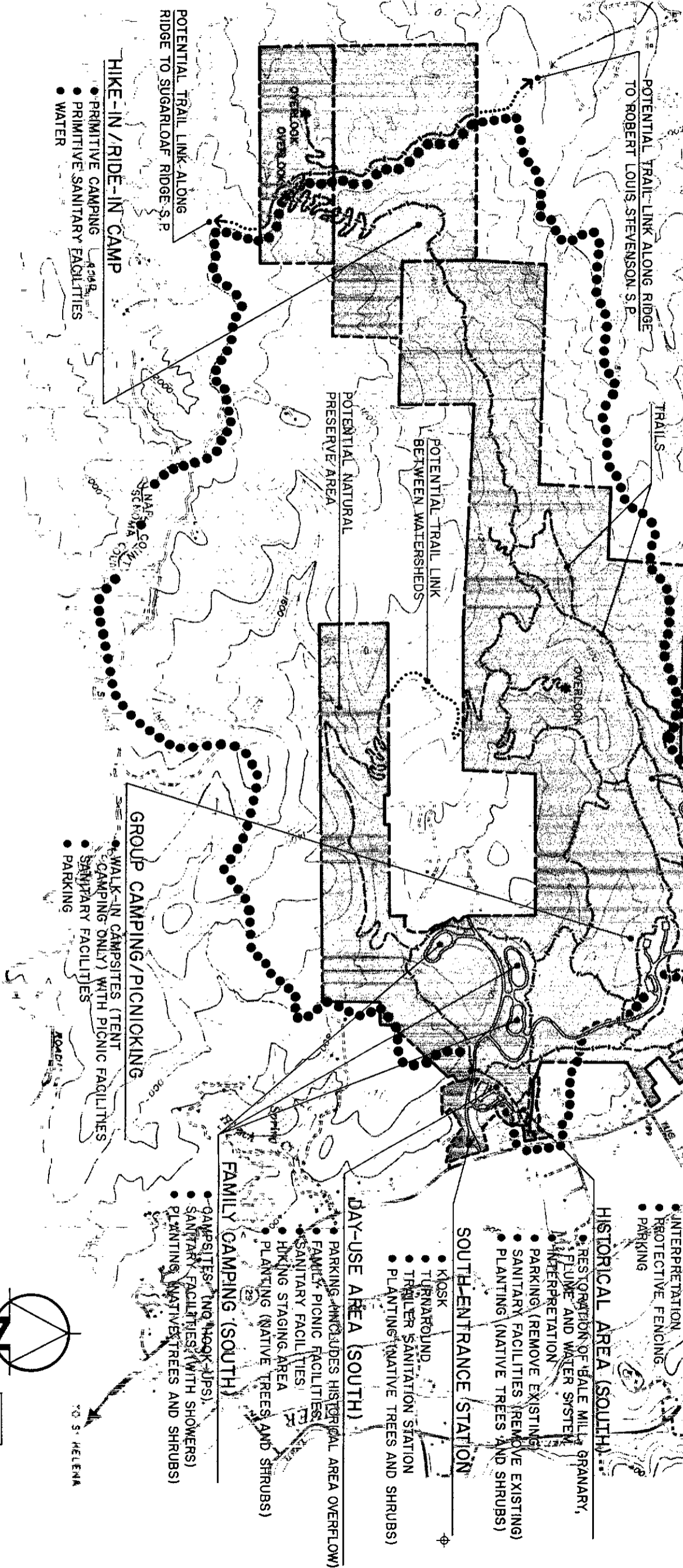
- CAMPSITES (NO HOOK-UPS)
- SANITARY FACILITIES (WITH SHOWERS)
- PLANTING (NATIVE TREES AND SHRUBS)

GROUP CAMPING/PICNICKING

- WALK-IN CAMPSITES (TENT CAMPING ONLY) WITH PICNIC FACILITIES
- SANITARY FACILITIES
- PARKING

HIKE-IN/RIDE-IN CAMP

- PRIMITIVE CAMPING
- PRIMITIVE SANITARY FACILITIES
- WATER



GENERAL DEVELOPMENT PLAN

DRAWING NO. 15038	BOTHE-NAPA VALLEY STATE PARK & BALE GRIST MILL STATE HISTORIC PARK GENERAL DEVELOPMENT PLAN	RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION		DESIGNED
		APPROVED _____ DATE _____	REVISIONS	DATE
SHEET NO. OF				DRAWN JUNE 1976 CHECKED

Hike-in/Ride-in Camp

Primitive camping facilities for approximately 50 persons will be provided. Development will be limited to chemical toilets, trash receptacles, and a water faucet. Cooking will be restricted to areas designated by stone fire rings. This area will be serviced from an existing dirt road that links the area with Spring Mountain Road.

Group Camping/Picnicking

1. Three group camping/picnicking areas, each accommodating up to 200 persons, will be provided. Each area will include group picnic tables, stoves, and tent sites.
2. Three parking areas will be provided, each accommodating approximately 50 cars. One parking area will be a pull-through type to facilitate bus parking.
3. A comfort station will be located at each of the parking areas.

Historical Area (North)

1. A well-defined circulation system with appropriate interpretive devices will be provided throughout this historic area.
2. The existing protective fencing within the Pioneer Cemetery will be supplemented so that all grave sites and headstones will be protected. Possible ways in which existing individual sections of fencing can be consolidated will be investigated.
3. Parking for approximately 10 cars will be provided in the vicinity of the White Church site. Appropriate native shrubs will be planted so that the parking area will not visually intrude upon the historic area.

Service Area

1. A fenced maintenance yard and building will be provided in the vicinity of the proposed new park entrance. Service vehicles will be able to enter and leave the park without having to go through the entrance station.
2. The ground floor of a recently acquired two-story building will become a new Area Office and the upper floor will be utilized as a dormitory for temporary help. A small, 6-car parking area will be provided near the building.
3. Ranger residences will be relocated from their present site to the vicinity of the maintenance area, and any new residences will be located there also. The proposed new park entrance will enable park personnel and their families to enter and leave the park without having to go through the park entrance station.
4. Appropriate native trees and shrubs will be planted throughout the service area in order to screen it from the proposed entrance station.

Bale Grist Mill SHP/Mill Creek Area

South Entrance Station

1. The new south entrance will be directly off Highway 29 and will provide the park visitor with safe sight distance in both directions. A new turn storage lane on Highway 29 will be created in the area of the park entrance. As proposed for the new north entrance, the south entrance will have sufficient backup area and a turnaround. The south entrance will also have a trailer sanitation station incorporated in the turnaround space. A small number of native trees and shrubs will be planted to enhance the park entrance and screen the trailer sanitation station.
2. Portions of Lyman Canyon Road (adjacent to the proposed parking areas) will be closed to through traffic. The new entrance road will connect with the existing Lyman Canyon Road to provide private property owners on Lyman Canyon Road access to Highway 29.

Day-Use Area (South)

1. Parking for approximately 80 to 100 cars will be provided for picnickers and hikers on a large section of flatland adjacent to the existing Lyman Canyon Road. (See Bale Grist Mill SHP Parking and Access Study, Fig. 15.) This parking will be flexibly designed to accommodate larger vehicles such as buses and campers, and will provide overflow parking space for the historical area as well.
2. Approximately 50 to 75 walk-in family picnic facilities with tables and stoves will be provided adjacent to Mill Creek, across from the parking area.
3. A comfort station will be constructed adjacent to the parking area.
4. Significant existing vegetation will be retained and additional native trees and shrubs will be planted to soften the visual impact of the proposed parking area.

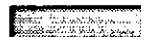



Family Camping (South)

1. This family camping area will provide approximately 100 to 125 campsites suitable for recreational vehicles such as campers or trailers. Tables, food lockers, and stoves will be provided at all of the campsites.
2. Three combination restroom buildings with showers and washbasins will be provided at centralized locations.
3. Significant existing vegetation will be retained and appropriate plantings of native shrubs and vegetation will be added. Special emphasis will be placed on planting shade trees.

Historical Area (South)

1. The Bale Grist Mill, granary, flume, and original water system will be restored. Water to power the mill wheel will be diverted from Mill Creek into a holding pond and then carried by gravity via a ditch to an elevated redwood flume. The water will travel down the flume to the wheel that runs the mill's grinding stones, and then be rediverted into Mill Creek.
2. Extensive interpretation will be provided the park visitor through both visual and verbal means. The possibility of a concession grain grinding and merchandising operation will be investigated. A well-defined circulation system with appropriate interpretive devices will be provided throughout this historic area.

LEGEND

-  LANDS UNDER STATE PARK MANAGEMENT OR LANDS TO BE UNDER STATE PARK MANAGEMENT (Funds for these lands are available from the State Beach, Park, Recreational and Historic Bond Act of 1974)
-  PROPOSED VEHICLE ACCESS ROAD
-  PROPOSED PEDESTRIAN CIRCULATION
-  PROPOSED PARKING (General Locations)

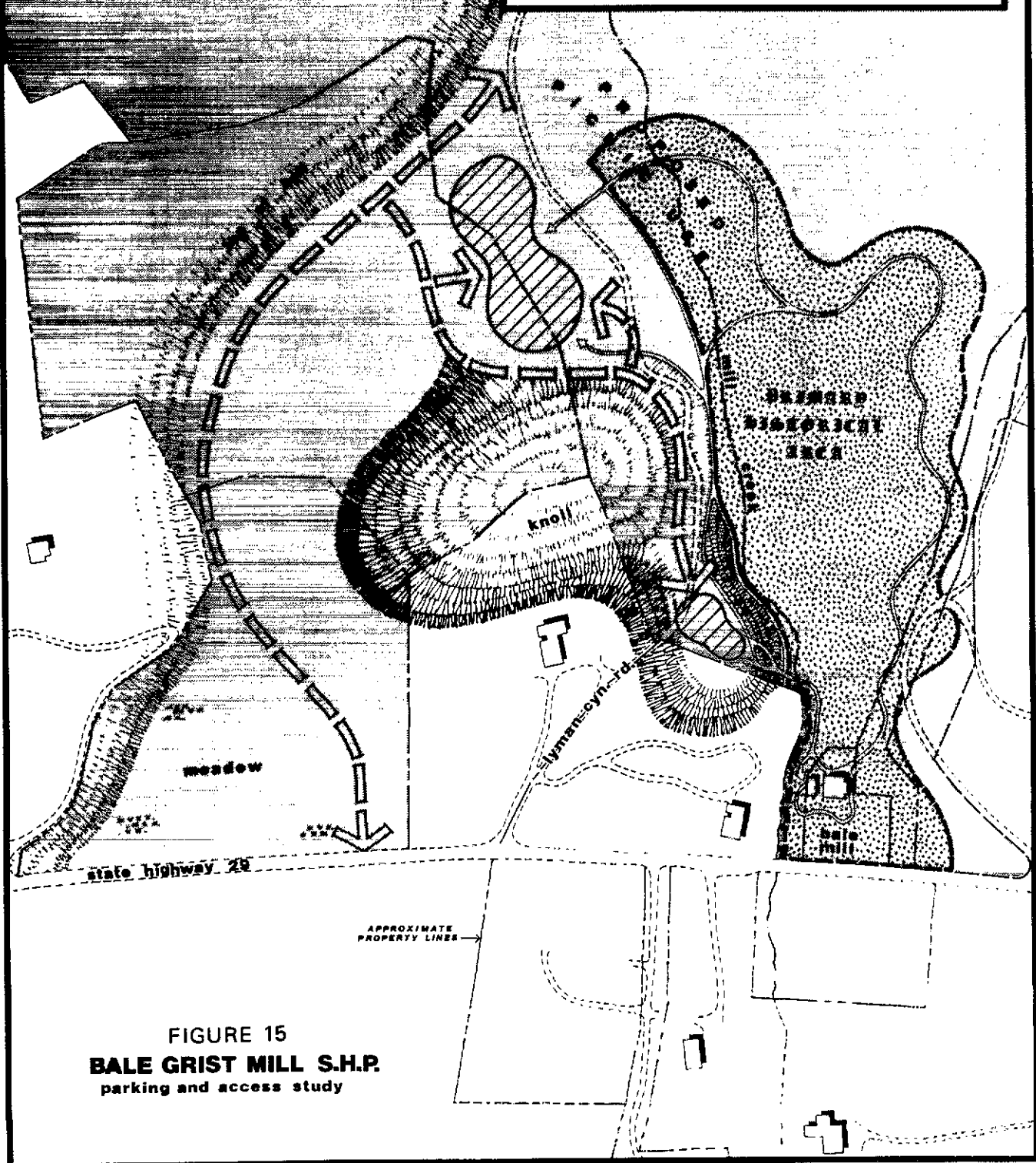
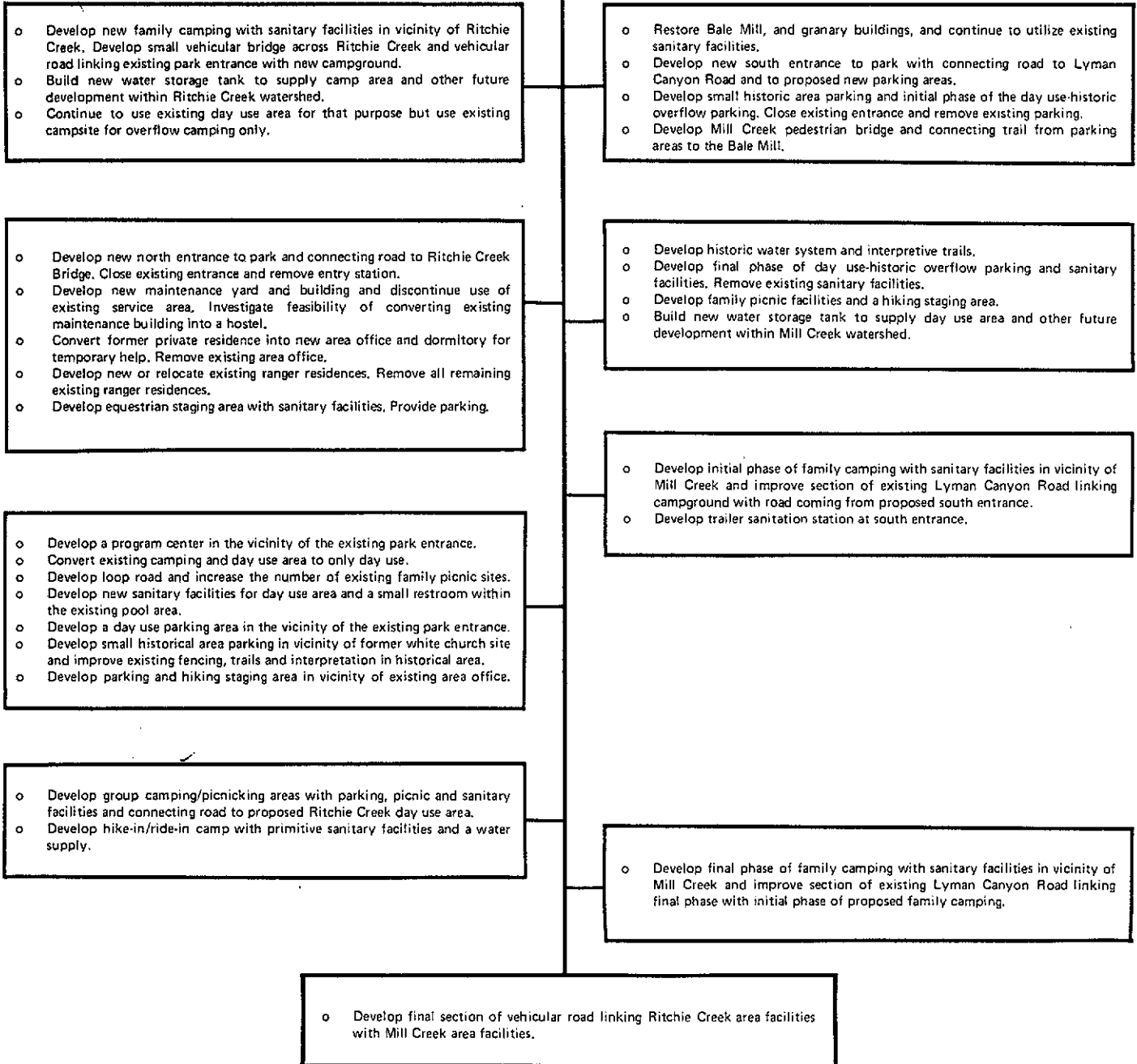


FIGURE 15
BALE GRIST MILL S.H.P.
parking and access study

SEQUENCE OF PLAN IMPLEMENTATION

BOTHE-NAPA VALLEY S.P.A.
&
RITCHIE CREEK AREA

BALE GRIST MILL S.H.P.
&
MILL CREEK AREA



NOTE: Appropriate hiking and equestrian trails should be considered for development in conjunction with any or all of the above proposals.

3. Existing parking will be removed from the front of the Bale Mill and a new 15 to 20 car parking area will be created on a small flat area approximately 500 feet behind and across Mill Creek from the Bale Mill (see Bale Grist Mill SHP Parking and Access Study, Fig. 15). A "drop-off" area and parking spaces designated for handicapped persons will be included. Visitors will travel down a ramp or stairs from the parking area, over a bridge across Mill Creek, and along a gentle walk to the Bale Mill. This close-in parking will accommodate elderly and handicapped persons (in wheelchairs) and will probably meet the overall parking needs of the Bale Mill throughout most of the year. The more distant day-use parking area will accommodate the overflow during peak visitation periods.
4. Restrooms will either be incorporated into the granary building or a comfort station will be constructed in the vicinity of the parking area. Existing restrooms will be removed.
5. A significant portion of the existing vegetation at the proposed parking area site will be retained and augmented with appropriate plantings of native shrubs and vegetation. Existing private residences will be screened with plants, and fencing will be provided along private property lines to insure that park visitors will not inadvertently trespass.
6. The present entrance to Bale Grist Mill SHP will be closed and screening and fencing will be provided in that area in order to reduce the impact of Highway 29 upon the historical areas and to prevent visitors from parking and entering the mill site via the site of the present entrance.

Study Area

Trails

1. Many miles of new equestrian and hiking trails will be constructed. In addition, bicyclists will be permitted to use the existing service road that links the potential biker/hiker hostel with the proposed Day-Use Area (North).
2. Three scenic overlooks with interpretive materials will be provided for hikers. Existing trees and shrubs will be thinned as necessary in these areas to open views.
3. Potential trail links to Robert Louis Stevenson SP and Sugar Loaf Ridge SP will be investigated and a western trail link between the Ritchie and Mill Creek watersheds will be negotiated with private landowners.

Appropriate Future Additions

Other than those funded lands that are already under negotiation, only a 1/4-acre parcel of land (adjacent to the proposed Larkmead entrance to the park) is required to implement the proposed General Development Plan. Other lands are recommended for consideration for possible future addition on a gift deed or opportunity purchase basis.

Two major groups of lands that are appropriate for future state park management are indicated on the Appropriate Future Additions Map, Fig. 16. One group is comprised of lands that are at present under negotiation for addition to the state parks. Funds for these lands are available from the State Beach, Park, Recreational and Historical Facilities Bond Act of 1974. Following are brief descriptions of these lands (the text number corresponds to the number indicated on the Appropriate Future Additions Map):

1. These lands include two undeveloped ownerships totaling approximately 27 acres. These parcels are needed to provide safe vehicular access and expanded parking for Bale Grist Mill SHP (see Bale Grist Mill SHP Parking and Access Study, Fig. 15).

2. These lands include two undeveloped portions of land totaling a little more than 1 acre. These parcels include the take-off point of the Bale Mill flume and some of the ditches that originally transported water to the flume, and are therefore needed in order to restore and interpret the Bale Mill water system.
3. These lands include two undeveloped ownerships totaling approximately 282 acres. These parcels are needed in order to link two now separated state park managed lands and to provide a site for a future hike-in camp (see General Development Plan, Fig. 14).

The second major group of lands considered to be appropriate for future state park management consists of lands for which there is no present funding source. With the exception of parcel A, these lands are not required in order to implement the General Development Plan, and, thus, should be considered for addition to the parks only on a gift deed or opportunity purchase basis. That is, parcels B-I should not be actively pursued for immediate acquisition but should the owners wish to gift deed their land to the state, or should the owners place their land up for sale on the open market, then these lands should be obtained. Following are brief descriptions of these lands (the text *letter* corresponds to the letter indicated on the Appropriate Future Additions Map):

- A. This 1/4-acre parcel is the undeveloped back portion of a single 1-1/3-acre parcel. As previously mentioned, this land is needed in order to create a new and safer park entrance on State Highway 29 directly across from Larkemead Lane.
- B. These lands include three small residential parcels totaling less than 2 acres. These parcels are appropriate for park management, largely because they visually intrude upon state park lands, and because they create operational problems. In addition, one of the residential parcels may be an archeological site.
- C. This 20-acre parcel is the undeveloped, steeper, wooded section of a single 40-acre agricultural parcel. This parcel is appropriate for park management because a park service and fire road runs through it, and because state ownership would insure the preservation of a natural buffer between the private agricultural lands and the Ritchie Creek camping area that is proposed in the vicinity of the parcel (see General Development Plan, Fig. 14).
- D. These lands include two large residential parcels totaling approximately 100 acres. These lands are appropriate for park management because they visually intrude upon lands that are proposed for the Mill Creek camping areas and because it is anticipated that they may cause operational problems once the General Development Plan is implemented.
- E. This 60-acre parcel is the undeveloped, steeper, wooded section of a single 160-acre agricultural parcel. This parcel is appropriate for park management because it would provide the land necessary for a public trail link between the Ritchie Creek and Mill Creek watersheds. The larger, 100-acre section of the total parcel, should it be taken out of agriculture and proposed for subdivision or extensive development, would then be appropriate for park management.
- F. This approximately 30-acre parcel is owned by Nature Conservancy and is appropriate for park management because it contains outstanding examples of riparian resources.
- G. This approximately 2-acre parcel is owned by Nature Conservancy and is appropriate for park management because state ownership would insure that development would not encroach upon that portion of the visual and physical surroundings of the Bale Grist Mill. This parcel is also important because it was the site of the historical Fosdick School and because it contains a beautiful stand of mature buckeye trees. Access to this land might

LEGEND

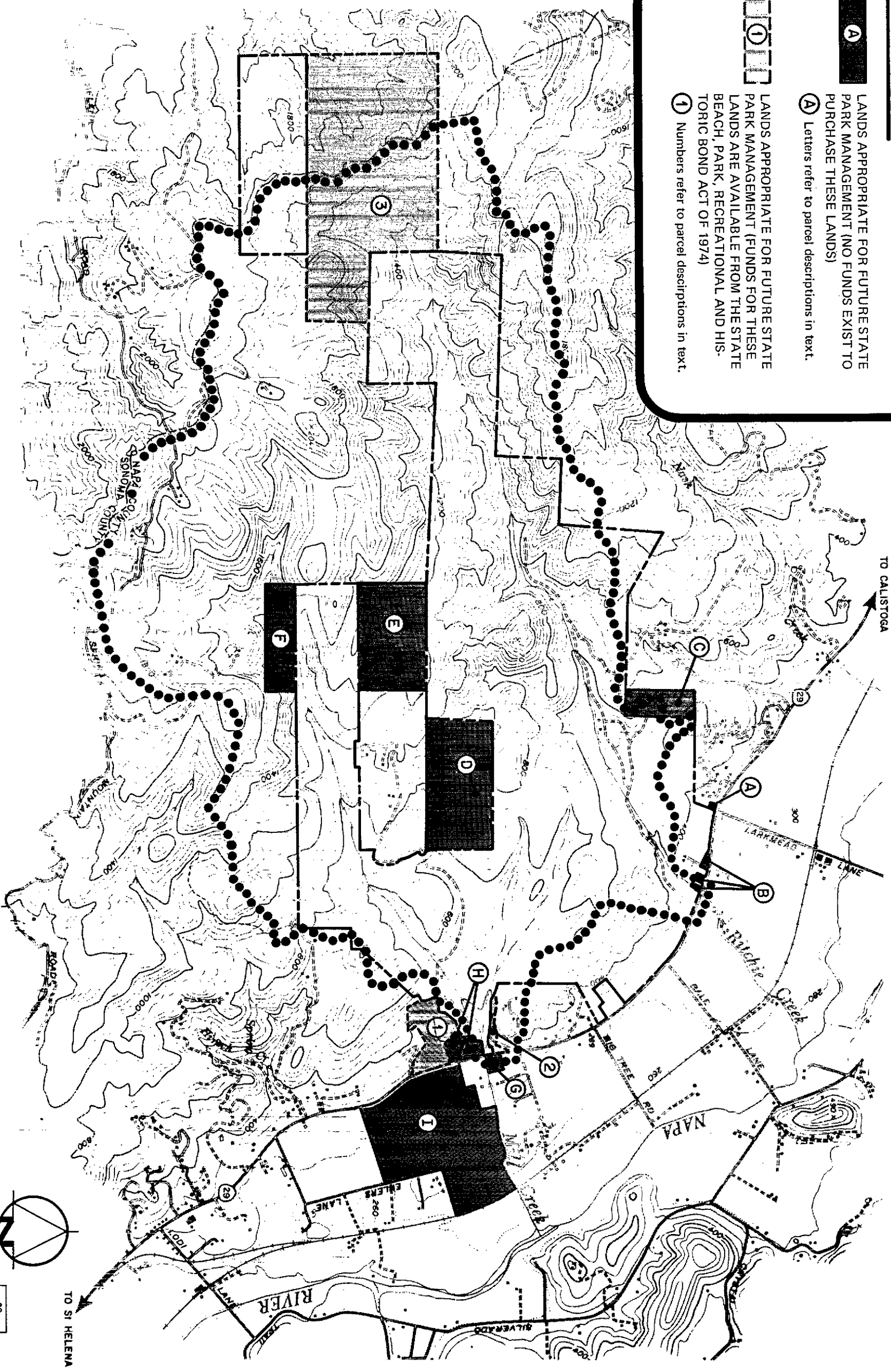
FIGURE 16

A LANDS APPROPRIATE FOR FUTURE STATE PARK MANAGEMENT (NO FUNDS EXIST TO PURCHASE THESE LANDS)

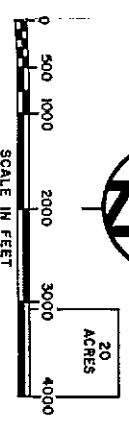
A Letters refer to parcel descriptions in text.

1 LANDS APPROPRIATE FOR FUTURE STATE PARK MANAGEMENT (FUNDS FOR THESE LANDS ARE AVAILABLE FROM THE STATE BEACH, PARK, RECREATIONAL AND HISTORIC BOND ACT OF 1974)

1 Numbers refer to parcel descriptions in text.



APPROPRIATE FUTURE ADDITIONS



DRAWING NO. 15038	DESIGNED	REVISIONS	DATE	DESIGNED
				DRAWN JUNE 1976
OF	APPROVED	DATE		CHECKED
BOTHE-NAPA VALLEY STATE PARK & BALE GRIST MILL STATE HISTORIC PARK APPROPRIATE FUTURE ADDITIONS		RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION		

be provided through the large arched culvert that transports the creek beneath the busy Highway 29 via a raised, removable walk that would allow Mill Creek to flow unimpeded. During times of heavy rains the area could be closed and the walkway removed.

- H. These lands include two small residential parcels totaling less than 10 acres. These lands are appropriate for park management because they visually intrude upon the state park lands, and because they may create operational problems once the General Development Plan is implemented. In addition, one of the properties contains a large old stone winery that has been converted into a modern residence, and the other contains the historic Kellogg/Lyman House. Both of these structures could have interpretive values in conjunction with the existing Bale Grist Mill SHP.
- I. This single, 117-acre, non-agricultural parcel of undeveloped land represents one of the last remaining natural portions of the upper Napa Valley floor. It is a prime example of the oak-grass savanna plant community that was mentioned in the "Vegetative Associations" section, and is certainly a valuable resource area worthy of preservation and interpretation. This area was also recommended for preservation and interpretation by the Bothe-Napa Area Citizens Advisory Committee in their letter of 1 October 1975 to the Director of Parks and Recreation (see Appendix A).

The State Department of Parks and Recreation, however, should not be considered to have the sole responsibility for attempting to preserve this unique and valuable Napa Valley resource. Napa County officials and citizen organizations (such as the Upper Napa Valley Associates) should also take a close look at various alternatives to protect and interpret this rare portion of their natural heritage.



Oaks

Park Name Changes

It is recommended that Bothe-Napa Valley SP and Bale Grist Mill SHP be combined under a single name, Napa Valley State Park, and that within this park, Bale Grist Mill and its associated structures and waterworks, the Pioneer Cemetery, and White Church site be designated as state historic areas. It is further recommended that the most western portion of the recently acquired W. W. Lyman property be considered for potential classification as a state natural preserve.

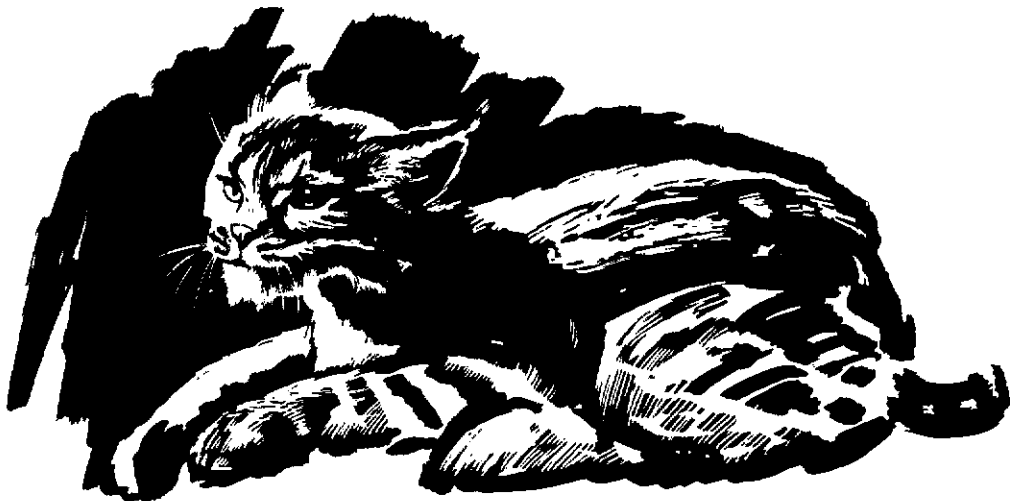
As mentioned in the "Introduction," Bothe-Napa Valley SP and Bale Grist Mill SHP have recently been linked through the acquisition of a large parcel of land. Mr. W. W. Lyman, the former owner of the 418-acre linking parcel, has stated that he does not want his former property to carry the name of Bothe in any way. Therefore, in order to meet his desires, this newly acquired parcel would probably have to be added to the existing Bale Grist Mill SHP, or the name Bothe would have to be eliminated from Bothe-Napa Valley SP. The latter is believed to be the preferable alternative. There are other factors that suggest that Bothe should be dropped from the park title:

- o The present Bothe-Napa Valley title confuses the park visitor;
- o Mr. Bothe gift-deeded an extremely small acreage to the state; almost all of his lands were sold to the state at a fair market price. Apparently there is no written agreement binding the State Park and Recreation Department to use the name Bothe in the park title.

For all of these reasons, it is recommended that Bothe be dropped from the official park name and that the proposed Ritchie Creek family camp be called *Bothe Campground* in honor of Mr. Reinhold Bothe.

It is also recommended that Bale Grist Mill SHP be dropped as a separate park unit and become a state historic area within the larger Napa Valley SP. It is felt that classifying the Pioneer Cemetery and White Church sites as state historic areas, and reclassifying Bale Grist Mill SHP to the same category would give the park visitor a more unified picture of the history that has occurred in the overall area encompassed by the state park lands.

A final recommendation is that the extreme western portion of the recently acquired Lyman property (see General Development Plan, Fig. 14 for approximate location) be investigated by the Department's Resource Preservation and Interpretation Division to determine whether it contains resource values that indicate that it should be considered for classification as a state natural preserve. If this classification is subsequently proposed, then the Parks Commission might consider naming the area Lyman Canyon State Natural Preserve after its former owner, a well-known Napa Valley poet and naturalist.



Bobcat



RESOURCE
MANAGEMENT PLAN



Pileated woodpecker

RESOURCE MANAGEMENT PLANS FOR BOTHE-NAPA VALLEY SP AND BALEGRIST MILL SHP

BOTHE-NAPA VALLEY STATE PARK

Introduction

Bothe-Napa Valley State Park in the upper Napa Valley is located within the Foothills and Low Coastal Mountains Landscape Province. Its approximately 1,680 acres on the east slopes of the Coast Range include some of the most easterly stands of natural second-growth coastal redwood and Douglas-fir forests. Also occurring here on the mesic areas are mixed-evergreen forests comprised mainly of tan-oak, madrone, and live oak. The more xeric areas are clothed with a chaparral plant community.

Camping and picnicking facilities have been developed among the Douglas-fir and madrone on the flat lands immediately adjacent to State Highway 29. This narrow, gently sloping area represents nearly all of the land that is available for intensive development within this unit at this time.

Included within the unit boundaries are an old cemetery and the site of the first church in Napa County, built in 1853. Immediately south of this unit along State Highway 29 is the Bale Grist Mill State Historic Park, for which a separate Resource Management Plan has been written.

This unit is within one and one-half hours of driving time from two major metropolitan areas; namely, the San Francisco Bay Area and the Sacramento Metropolitan Area. The attendance records testify to its popularity, and the turnaway records show that the demands for its facilities substantially exceed the available supply.

I Existing Declaration of Purpose

The existing Declaration of Purpose was approved by the State Park Commission on July 21, 1964, and reads as follows:

The purpose of Bothe-Napa Valley State Park is to make available to the people forever, for their inspiration and enjoyment, in an essentially natural condition, the basin of Ritchie Creek, an area of natural scenic beauty and historical interest which is typical of the Napa Valley foothills.

The function of the Division of Beaches and Parks at Bothe-Napa Valley State Park is to protect and interpret the values of the park, and to provide such facilities, consistent with the purpose of the park, as are necessary for the full enjoyment of the park by visitors.

II Proposed Declaration of Purpose

An updated Declaration of Purpose is proposed for this unit as set forth below.

The purpose of Bothe-Napa Valley State Park is to assure the perpetuation, in an essentially natural condition, of the forests, meadows, streams, wildlife, and scenic values of the Ritchie Creek watershed near St. Helena, all considered as an ecological unit; to achieve the preservation of the archeological and historical values which exist within the watershed or on other lands which are or may become a part of the park; and to make possible the public use and enjoyment of these resources through compatible outdoor recreational activities.

III Declaration of Management Policy

The primary objective of management at Bothe-Napa Valley State Park shall be to manage the prime resources — the forest and other wildland resources representing a typical watershed of the North Central Coast Range — so as to protect, preserve, and perpetuate these resources in a condition approximating pristine status for the enjoyment of present and future generations. Management will be undertaken only to restore the pristine conditions, or to counter the negative influences of modern man.

Special care should be given to the management of the coast redwood stands along Ritchie Creek. These stands represent some of the easternmost coast redwood stands in the state. Any activities within the watershed which might cause accelerated erosion and sedimentation could have

adverse effects on these stands. Developments within or near these stands should be of low density and preferably well dispersed.

Enhancement of the values existing at this unit and the improvement of management and protection possibilities require additional acquisition within the Ritchie Creek and Mill Creek watersheds; lands not acquired should be monitored to insure that they are managed in harmony with the neighboring park lands.

Since several rare and endangered plant species are known to grow in the park, careful measures must be taken to insure their protection. Full investigation should be made of the extent of their habitats and of the desirability of one or more natural preserves, as well as full coordination of development planning with necessary area protection.

Management policy with regard to cultural resources should be directed toward integrating their protection, management, and interpretation with efforts at the Bale Grist Mill State Historic Park.

Public enjoyment of the natural, scenic, and cultural resources of the park will be enhanced to the fullest extent possible by an active program for interpretation.

All departmental activities within the park will be carried out within the guidelines established by the Resource Management Directives of the Department.

BALE GRIST MILL STATE HISTORIC PARK

Introduction

The Bale Grist Mill, located in Napa County on Highways 29/128, approximately three miles northwest of Saint Helena, represents the efforts of pioneering settlers and typifies, in part, their contribution to the history of California both locally and to the state at large.

Completed in 1847 by Edward Bale, the mill was operated for 63 years (1847-1910) during which time it ground thousands of bushels of wheat, corn, and other cereals for the sustenance and economic enhancement of people living in the Napa Valley and for many miles around. The adjoining granary, built as a storage facility for the milled grains, later also served as a meeting place for local social activities. In 1939 the mill complex became California Historical Landmark No. 359. On June 22, 1972, it was placed upon the National Register of Historic Places. Deeded by the County of Napa to the state on April 26, 1974, the mill and granary are, with one exception, the oldest of their kind in California.

Declaration of Purpose

The Bale Grist Mill with associated buildings and grounds has been acquired to provide for the preservation of this unique structural complex which is reminiscent of the area's settlement by mid-19th century pioneers, and to make possible the interpretation of their way of life, their technical skills, and their accomplishments as influential factors in the development of the agricultural, commercial, and social fabric of the state at large.

Declaration of Management Policy

In managing the Bale Grist Mill the preservation and restoration of structural, environmental, and functional details characteristic of the 19th century (as related to 1846-79) is the primary goal of the Department of Parks and Recreation, which includes the restoration of the mill and a portrayal of circumstances and events characteristic of its changing role in this predominantly agricultural region, leading ultimately to the shift in Napa Valley agriculture from the growing of grains to the present day emphasis on viticulture.

In achieving the Department's objectives emphasis will be on the protection, preservation, restoration, reconstruction, and interpretation of the original structures, furnishings, and environment, and on the removal of adversely modified or non-authentic features.

All departmental activities at the Bale Grist Mill will be carried out within the framework of the Department's Resource Management Directives.

ENVIRONMENTAL IMPACT REPORT





Checker Lily

ENVIRONMENTAL IMPACT REPORT

The following report indicates some environmental impacts of minor degree that could occur if the project is implemented as planned. These include increases in air and noise pollutants and soil erosion, alterations of existing drainage patterns, disruptions of some vegetation and animal life, effects on visual quality, disturbances of several suspected archeological sites, inconveniences to neighboring land owners, and demands on private and public services. The report also lists mitigating measures, such as landscaping, archeological investigation, signing, fencing, and management measures proposed to minimize some of the above impacts. Possible alternatives to the proposed project are discussed.

The Environmental Impact Report (EIR) is divided into three major sections: 1) Description of the project; 2) Description of environmental setting; and 3) Environmental impact. By law, the degree of specificity required in the latter two sections corresponds to the degree of specificity involved in the first section, which describes the project. In the case of this report, the project description is the General Development Plan for Bothe-Napa Valley SP and Bale Grist Mill SHP, and because this plan is largely a *broad* master plan, the EIR is also a *broad* assessment of potential impacts. It should be noted that whenever a specific phase of the overall plan is budgeted and proposed for implementation, a more detailed and specific EIR will then be prepared for that particular project.

Description of the Project

Location: See "Location," p. 4 .

Objectives: See "Goals and Objectives," p. 3 .

Project Description: See "General Development Plan," p. 77 .

Description of Environmental Setting

Existing Environment: See "Resource Inventory and Analysis," p. 9 .

Regional Considerations: See "Future Situation," p. 59.

Environmental Impact

The Environmental Impact of the Proposed Action

The greatest adverse environmental impact of the proposed project would be caused by construction activity, physical development of the land, and the increased concentration of people and activities within certain areas of the project.

Short-term Impacts: The construction of facilities such as roads, trails, restrooms, campsites, and administrative facilities would cause short-term environmental impacts such as dust, noise, and increased vehicular traffic.

Long-term Impacts: After completion of the construction phase, long-term impacts caused by the construction of physical features such as walks, roads, parking areas, and miscellaneous single-story structures may be expected. Long-term impacts could also result from the concentration of people, vehicles, and activities within certain areas of the project. Following is a summary of possible long-range impacts on the existing natural environment, private and public services, and community health and safety:

1. Effects on Air — It is expected that the proposed concentration of vehicles in the parking facilities that service the group camping/picnicking and the north and south day-use areas would result in increased levels of vehicle-related air pollutants and noise in those particular areas.
2. Effects on Geology and/or Soils — The cuts and fills likely to occur in the grading for several portions of the road linking the group camping/picnicking with the north and south day-use areas and for a few of the steeper trails could result in some soil erosion. A further source of erosion could result from normal recreational use of the developed lands by park visitors.
3. Effects on Hydrology — The soil erosion mentioned above could cause siltation and subsequent sedimentation of existing water courses. Natural drainage patterns could be further altered by man-made drainage devices (i.e., drainage ditches and culverts) that would be required to implement some portions of the General Development Plan. The proposal to divert water from Mill Creek to operate the mill wheel could also affect the existing hydrology of the area.

In addition to these potential surface drainage impacts, a subsurface effect could result from the proposed development. Paved areas would inhibit water penetration into the soil leading to possible depletion of groundwater that supplies the existing springs and wells. This might affect the water supply needed by the park.

4. Effects on Vegetation — The implementation of the proposed plan would probably require the removal of some existing trees and shrubs. In addition, soil compaction resulting from concentrating park visitors in specific areas, such as the north and south day-use areas, could eventually affect the existing native vegetation in those areas.

Rare and endangered plant species would not be disturbed.

5. Effects on Wildlife — The development of picnicking and camping facilities, trails, and roads may affect the established habitats of some animals.
6. Effects on Scenic or Visual Quality — The intrusion of park visitors and their vehicles into some previously undisturbed natural areas, and the construction of facilities would have an impact on the visual quality of the area.
7. Effects on Cultural Resources — Historical sites would be modified by the addition of non-historic elements such as protective fencing, paved walks, and interpretive devices.

Suspected archeological sites in the vicinity of the proposed road linking the Family Camping (North) with the north entrance station road could be disturbed by this road construction. Proposed increases in visitor use would also increase the chances for misuse of these and other cultural resources within the park units.

8. Effects on Neighboring Land Owners — Some increase of vehicle traffic on Highway 29 in the vicinity of the park could develop. In addition, some park visitors may trespass on private property.

The development proposed in the Mill Creek area could at peak times inconvenience the few private land owners who would have to share the south entrance road with the park visitors. (Potential visual impacts have already been noted.)

9. Effects on Private and Public Services Demanded — It is anticipated that several public and private service demands would result from the proposed development. These demands would include the following:

- o The development of the new park entries would require possible widening and appropriate additional signing in those entrance areas.
 - o The new north entrance across from Larkmead Lane could require the improvement and widening of that particular county road and the possible provision of a bike trail connection to the Silverado Trail.
 - o Maintenance of campgrounds, concessions, and day-use areas could require the resources of local individuals.
 - o On-site construction could require local labor supplies and could temporarily increase local employment.
 - o Although many visitors bring the majority of their food staples with them, the sale of incidentals and beverages at local grocery stores could increase.
 - o Increased fuel demands by park visitors could decrease local supplies.
 - o Additional park personnel would require the full range of public and private services.
10. Effects on Demands for Law Enforcement and Fire Fighting Services – Law Enforcement: Largely because of the manned entrance stations that control the vehicular access points to the parks, no increased demands for law enforcement services are anticipated.
- Fire Control: Although the development is not expected to present fire hazards, public assistance could be required to supplement the park staff in the event of a major fire. In the event of a major fire, the State Department of Forestry Field Station, which is surrounded on three sides by Bothe-Napa Valley SP, would be called upon to assist.
11. Effects on Community Health and Safety – The development proposes adequate sanitary facilities and no significant impact on community health and safety is expected.

Unavoidable Adverse Environmental Effects

All of the adverse impacts outlined in the above section are considered to be environmental effects which cannot be avoided if the project is implemented as proposed. There is a possibility that some of these impacts, such as the effects on scenic or visual quality, could be reduced to an insignificant level through mitigation, but it is highly unlikely that any of the impacts could be totally eliminated.

However, having inventoried and analyzed the existing resources, and determined present and future recreational needs in the preceding chapters of the General Development and Resource Management plans, and having studied various alternatives, the Department feels that the recreational benefits to be gained from the proposed project outweigh the minor environmental impacts that would result from the implementation of the proposed plan for development.

Mitigation Measures Proposed to Minimize the Impact

1. Landscaping will be used to minimize soil erosion, screen proposed buildings and maintenance areas, and improve the overall aesthetic qualities of the park units. Native plants that will tolerate the special environmental conditions will be selected to harmonize with the surrounding landscape.

All attempts will be made to “work around” and retain significant existing vegetation, and cut and fill grading will be minimized.

2. Equestrian and hiking staging areas and designated trails will be provided to encourage motor vehicle users to park their automobiles and walk or ride horses or bicycles to their destinations. This will reduce automobile-related impacts and conserve petroleum.

3. Because only 10 percent of the land area is being proposed for development, ample space will remain for wildlife to relocate naturally.

4. An investigation of suspected archeological sites will be conducted prior to any development occurring in the area of the sites. This investigation will determine if action should be taken to preserve artifacts and if interpretive facilities will be necessary.

Enforcement of park rules by a staff committed to the protection of historical and archeological resources will decrease the potential for misuse of these resources by park visitors.

5. Adequate fencing, signing, and surveillance by park staff will discourage park visitors from disturbing neighboring land owners and landscaping will soften the visual impact of the developed park facilities.

6. Detailed energy conservation measures relating to building construction and design will be included when a more specific EIR is prepared for the implementation of a particular budgeted phase of the overall plan.

Alternatives to the Proposed Action

The three alternatives to the proposed action are:

1. More development: Considering the great initial investment involved in developing recreational support elements such as roads and utilities, it might be more practical from a financial standpoint to develop more facilities than those offered in the proposed project. It is felt, however, that more development would exceed projected needs and would significantly increase adverse environmental impacts.
2. Less Development: This alternative might include eliminating some of the plan elements. For example, the group camping/picnicking element and the road linking the north and south recreational areas could be eliminated and the other facilities could remain unchanged. Or the facilities in the Ritchie Creek area of the park could be implemented and those in the Mill Creek area could be excluded, or vice versa.

A further alternative under this category would be to retain all or some of the elements in the plan but reduce the levels of recreational development proposed for all or some of those elements. For example, the group camping/picnicking and its associated parking could be retained but reduced to accommodate a maximum of 100 persons per group camp, instead of the proposed maximum of 200 persons per camp.

The alternative of less development appears to be desirable from the standpoint of minimizing adverse impacts on the natural resources, but it is, for the most part, unrealistic when cost-benefit and present and future recreational demands are considered. It should be noted that the planned development is to be implemented through a sequence of *phases*. At the start of each phase, that particular segment of the overall plan will be re-evaluated to determine whether there has been a significant change in the numbers and types of facilities required and to determine detailed environmental impacts of and alternatives to that particular budgeted project.

3. No Development: If no development occurs, the present problems that exist at these park units, such as a lack of facilities to meet present and projected needs and unsafe vehicular access, will not only continue but will probably grow worse as future recreational demands increase. The Department has the responsibility of not only protecting the environmental

resources under its charge, but also of providing recreational opportunities for all of the people of the state; therefore, the Department considers the "no development" alternative unacceptable.

Relationship Between Short-Term Use and Long-Term Productivity

The project, as proposed, would preserve publicly owned open space for future generations while providing minimal facilities to support recreational activities on the site. Only approximately ten percent of the site would be developed, while the remainder would be managed as natural preservation, open space, and watershed lands.

In order to comply with existing county land use planning, agriculture is the only other major use that could be made of the lands that are proposed for actual development of recreation facilities. Large portions of these lands, however, are considered to be marginal for agricultural use and are probably too small to make their agricultural use economically feasible.

It is believed that the value of recreational opportunities that would be provided by this project outweighs potential agricultural uses, and would greatly enhance the long-term productivity of the local environment.

Irreversible Environmental Changes Resulting from the Proposed Project

The following irreversible environmental changes are anticipated:

1. The conversion of some formerly undeveloped land into land sustaining recreational facilities.
2. The possible disturbance of portions of suspected archeological sites. (Mitigation measures would be taken, but it is still considered to be a site disturbance.)
3. The commitment of non-renewable resources such as oil, gasoline, and gravel to construct roads, parking areas, and other park facilities.

Growth-Inducing Impact of the Proposed Action

It is possible that the local economy in the vicinity of the park might be somewhat stimulated by the influx of park visitors during the summer months and by the initial construction activities involved in building the proposed new park facilities. No other growth-inducing impacts, however, are anticipated.

NOTE: For a list of organizations and persons consulted in preparing the "Bothe-Napa Valley SP and Bale Grist Mill SHP — General Development Plan, Resource Management Plan and Environmental Impact Report," see the "Acknowledgments," p. ii .

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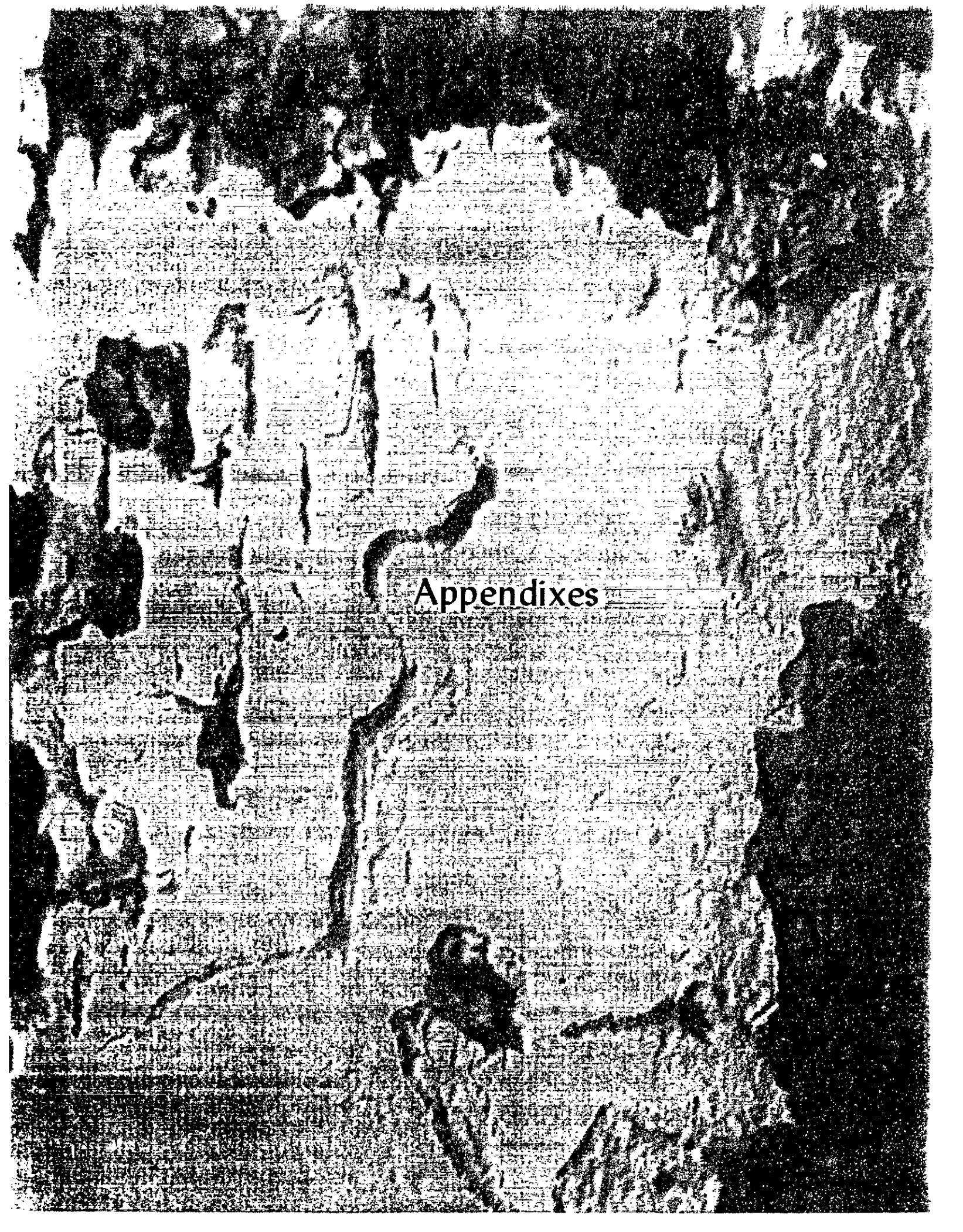
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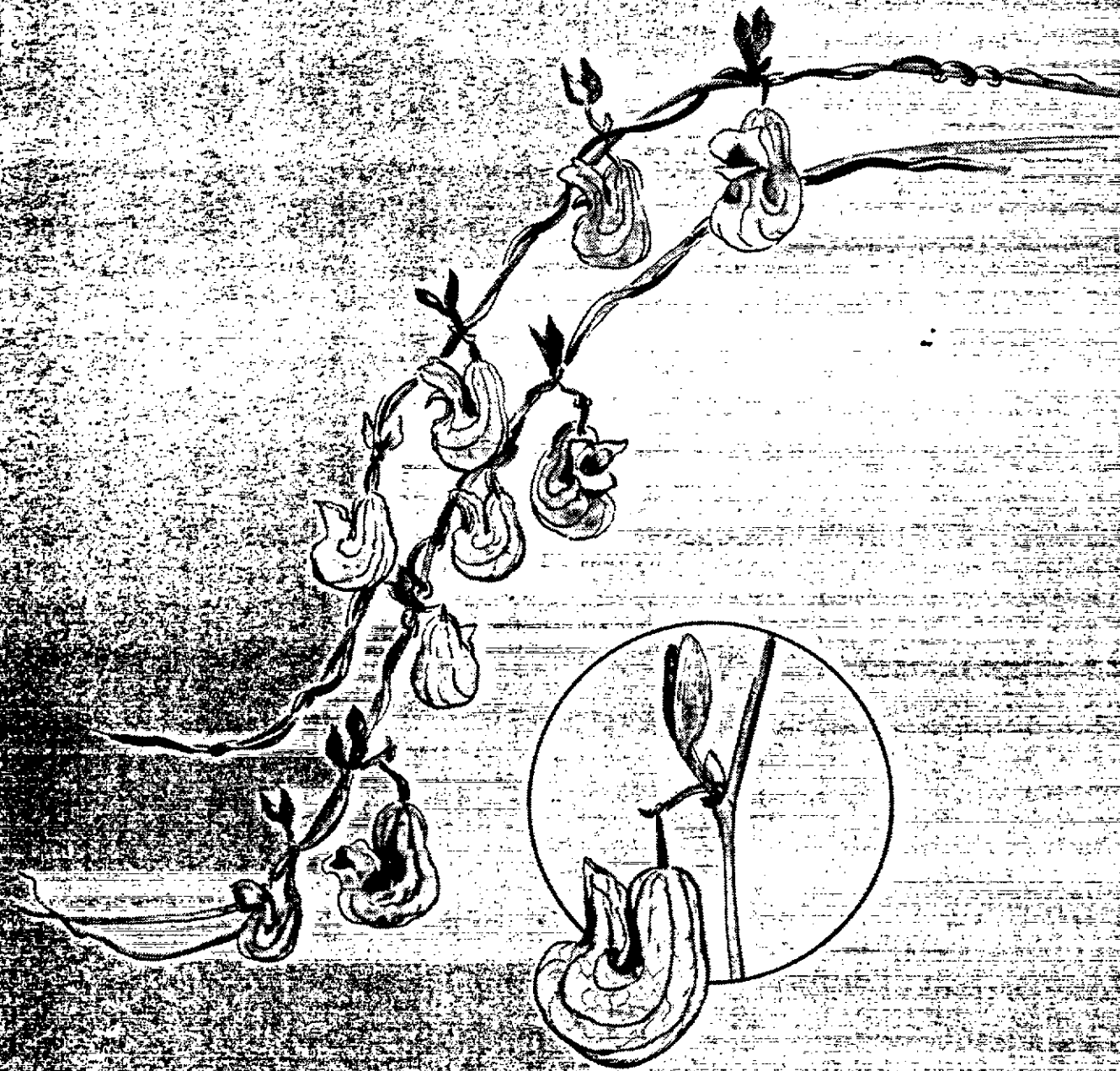
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The image is a high-contrast, black and white photograph of a textured surface, possibly a rock face or a wall. The texture is highly irregular and grainy, with many dark, shadowed crevices and lighter, more reflective areas. The overall appearance is that of a rough, weathered surface. In the center of the image, the word "Appendix" is written in a simple, sans-serif font. The text is white and stands out against the darker, more textured background. The word is centered horizontally and vertically.

Appendix



Dutchman's Pipes

Appendix A

Copy of a Letter from the Bothe-Napa Area Citizens Advisory Committee Dated October 1, 1975

Honorable Herbert Rhodes
Director of the Department of Parks & Recreation
1416 Ninth Street, Room 1405
Sacramento, California 95811

Dear Mr. Rhodes:

As members of the Bothe-Napa Area Citizens Advisory Committee it is our duty to advise you as to the future development and preservation of the park system in our area. Keeping in mind the great historical and natural wealth of the area we have worked extensively with the planning and development section of the Department of Parks and Recreation to provide a plan of action. The purpose is two fold; First to preserve and develop the areas which are now in the park. Secondly to urge the acquisition of those last open space areas of the valley which otherwise could easily disappear forever.

It is important to note, Director Rhodes, this park is located approximately 60 to 90 minutes from the centers of the greater San Francisco area. The attendance and turnaway records of the park show the recreation facilities are falling far short of public needs.

Our recommendations have omitted details at this point in time and we are willing to study details when that time comes.

The Advisory Committee unanimously presents to you the following seven recommendations we feel will be desirable for a fully developed park.

1. *Provide Overnight and Day Use Recreation areas and Facilities for Appropriate Outdoor Recreation Activities.*

Some of the major activities provided for in the conceptual plan are: camping, picnicking, hiking, horseback riding, bicycle riding, swimming and fishing.

The use areas, trails, and recreational activities would be developed commensurate with the anticipated increase in attendance.

2. *Provide for the Extension of Hiking, Riding and Bicycle Trails Where Feasible.*

Although not illustrated on the conceptual plan, wherever possible, hiking and equestrian trail connections to other units of the state park system should be developed. The conceptual plan does, however, suggest possible bicycle circulation.

3. *Provide for the Preservation and Interpretation of Historical Sites.*

The conceptual plan includes the Bale Grist Mill, the Pioneer Cemetery, and the White Church Site which are already in state ownership. The plan suggests state management of the Buckeye Grove currently owned by Nature Conservancy. The plan suggests that the site of the second known school house in California be acquired and interpreted.

4. *Provide for Interpretation and Preservation of the Natural History of the Area.*

This would provide the children and adults of the surrounding urban areas with observation and interpretation of the natural environment.

5. *Provide for Preservation and Interpretation of Representative Portions of Napa Valley.*

The conceptual plan as shown would involve the acquisition of oak-studded grass land on the *Napa Valley* floor, stream and river frontage on the valley floor and wooded hillside property on the east slope. Representative portions of the valley west slopes are already within the state park boundaries. Although not shown on the conceptual plan, adequate preservation of the west slope would involve acquisition of the undeveloped portion of the Ritchie Creek watershed.

6. *Provide Continuity In Land Use and Circulation.*

The conceptual plan provides for the connection of Bothe State Park units in a manner that would allow the public to enjoy all of the areas of interest from a single access point or uninterrupted route of travel. Realization of the continuity proposed in the plan would require the acquisition of scenic areas or in holdings [and] the eventual construction of a vehicular underpass or overpass.

7. *Provide Safe Vehicular Access to Bothe-Napa Valley State Park and Bale Grist Mill State Historic Park.*

Safe access can be done in conjunction with the possible relocation of the Bothe-Napa Valley State Park access. The conceptual plan shows access at Larkmead Lane. This provides a direct access to the park from both Highway 29 and the Silverado Trail. We have been informed CAL TRANS is currently making a study of access problems and will hopefully share with us their recommendations. Problems of access do exist and will continue to increase until solved.

The members of this Advisory Group respectfully submit to you the first set of recommendations for the development of the Bothe-Napa Valley State Park. We hope that in the year 2001 all the components of the conceptual plan will have been a reality for some twenty years.

Sincerely,

Russell H. Archerd, Chairman
Bothe-Napa Area Advisory Committee

RHA:asc

Appendix B

A PARTIAL LISTING OF PLANTS — BOTHE-NAPA VALLEY SP AND BALE GRIST MILL SHP

*Indicates rare and endangered species

<p style="text-align: center;">ACERACEAE</p> <p><i>Acer circinatum</i> <i>Acer macrophyllum</i></p>	<p>Maple Family Vine maple Big-leaf maple</p>
<p style="text-align: center;">ANACARDIACEAE</p> <p><i>Rhus diversiloba</i></p>	<p>Sumac Family Poison oak</p>
<p style="text-align: center;">ARALIACEAE</p> <p><i>Aralia californica</i></p>	<p>Aralia Family Elk clover</p>
<p style="text-align: center;">ARISTOLOCHIACEAE</p> <p><i>Aristolochia californica</i></p>	<p>Birthwort Family Dutchman's pipe</p>
<p style="text-align: center;">BERBERIDACEAE</p> <p><i>Vancouveria parviflora</i></p>	<p>Barberry Family Inside-out flower</p>
<p style="text-align: center;">BORAGINACEAE</p> <p><i>Cynoglossum grande</i> <i>Myosotis sylvatica</i> <i>Plagiobothrys nothofulvus</i></p>	<p>Borage Family Western hound's tongue Forget-me-not Common popcorn flower</p>
<p style="text-align: center;">CALYCANTHACEAE</p> <p><i>Calycanthus occidentalis</i></p>	<p>Sweet-shrub Family Spice bush</p>
<p style="text-align: center;">CAMPANULACEAE</p> <p><i>Campanula prenanthoides</i></p>	<p>Bell-Flower Family California harebell</p>
<p style="text-align: center;">CAPRIFOLIACEAE</p> <p><i>Lonicera hispidula</i></p>	<p>Honeysuckle Family Honeysuckle</p>
<p style="text-align: center;">CARYOPHYLLACEAE</p> <p><i>Silene californica</i> <i>Stellaria media</i></p>	<p>Pink Family Indian pink Common chickweed</p>
<p style="text-align: center;">COMPOSITAE</p> <p><i>Achillea millefolium</i> <i>Adenocaulon bicolor</i> <i>Baccharis pilularis</i> <i>Carduus pycnocephalus</i> <i>Hieracium albiflorum</i> <i>Petasites palmatus</i> <i>Taraxacum vulgare</i> <i>Wyethia glabra</i></p>	<p>Sunflower Family Common yarrow Trail plant Coyote brush Italian thistle Hawk weed Sweet coltsfoot Dandelion Mule-ears</p>
<p style="text-align: center;">CORNACEAE</p> <p><i>Cornus Nuttallii</i></p>	<p>Dogwood Family Pacific dogwood</p>

CORYLACEAE
Corylus rostrata

Hazel Family
California hazel

CRUCIFERAE
Cardamine digosperma
Dentaria californica

Mustard Family
Bitter cress
Milk-maid

CUCURBITACEAE
Echinocystis fabacea

Gourd Family
Common manroot

ERICACEAE
Arbutus menziesii
Arctostaphylos manzanita
Pirola aphylla
Rhododendron occidentale

Heath Family
Madrone
Manzanita
Leafless pyrola
Western azalea

FAGACEAE
Lithocarpus densiflora
Quercus agrifolia
Quercus chrysolepis
Quercus Douglassii
Quercus dumosa
Quercus Garryana
Quercus Kelloggii
Quercus lobata
Quercus Wislizenii

Oak Family
Tanbark oak
Coast live oak
Canyon oak
Blue oak
Scrub oak
Oregon oak
Black oak
Valley oak
Interior live oak

GERANIACEAE
Erodium Botrys
Erodium circutarium

Geranium Family
Long-peaked filaree
Red-stem filaree

HYDROPHYLLACEAE
Nemophila heterophylla

Phacelia Family
Small white nemophila

HYPERICACEAE
Eriodicyton californicum
Hypericum perforatum

St. John's Wort Family
Yerba santa
St. John's wort

IRIDACEAE
Iris Douglasiana
Sisyrinchium bellum

Iris Family
Douglas iris
Blue-eyed grass

LABIATAE
Brunella vulgaris
Lamium purpureum
Micromeria chamissonis
Stachys rigida

Mint Family
Self heal
Red henbit
Yerba buena
Hedge nettle

LAURACEAE
Umbellularia californica

Laurel Family
California bay

LEGUMINOSAE

Lotus humistratus
Lotus scoparius
Lupinus bicolor
Pickeringia montana
Psoralea physodes
Trifolium depauperatum

Pea Family

Hill lotus
Deer week
Blue & white lupine
Chaparral pea
California tea
Dwarf sack clover

LILIACEAE

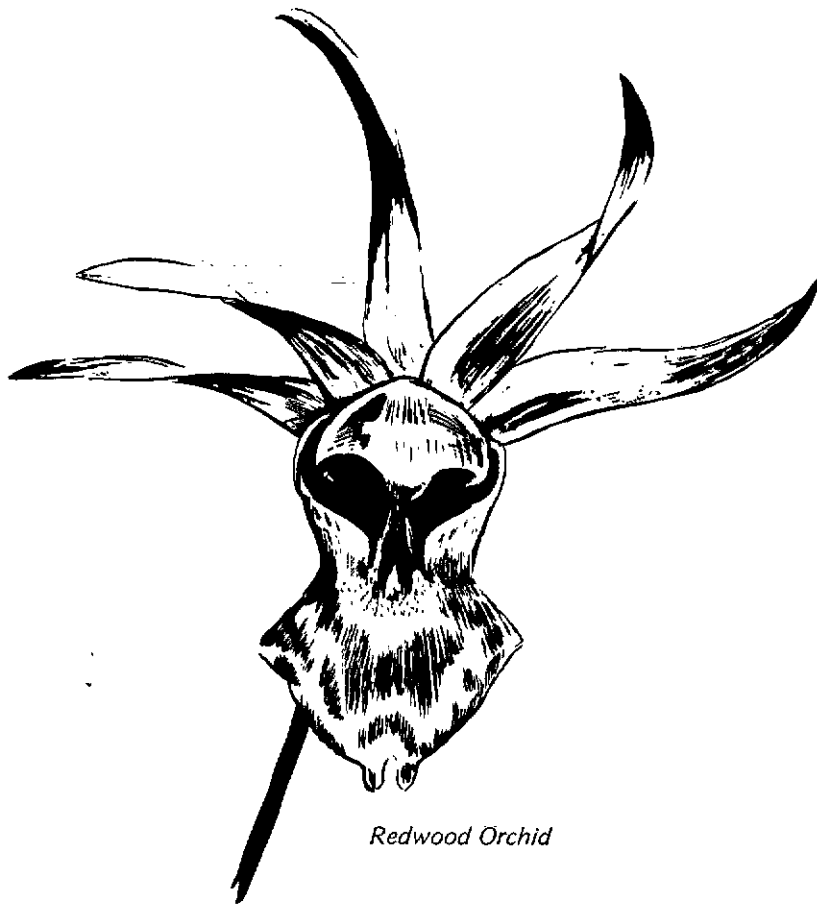
Brodiaea capitata
Brodiaea elegans
Brodiaea laxa
Brodiaea pulchella
Calochortus amabilis
Calochortus luteus
Chlorogalum pomeridianum
Disporum Hookeri
Fritillaria lanceolata
Fritillaria recurva
Lilium paradalinum
**Lilium rubescens*
Smilacina amplexicaulis
Smilacina sissilifolia
Trillium chloropetalum
Trillium ovatum
Xerophyllum tenax
Zigadenus Fremontii

Lily Family

Blue dicks
Harvest brodiaea
Ithuriel's spear
Blue dicks
Golden lantern
Yellow mariposa lily
Amole soap plant
Fairy bells
Checker lily
Scarlet fritillary
Tiger lily
Ruby lily
Fat solomon
Slim solomon
Common trillium
Wake robin
Fire lily
Star zygadene



Scarlet Fritillary



Redwood Orchid

LIMNANTHACEAE

Polygala californica

Meadow Foam Family
Milk wort

MALVACEAE

Sidalcea malvaeflora

Mallow Family
Checker bloom

ONAGRACEAE

Oenothera ovata

Evening Primrose Family
Golden eggs

ORCHIDACEAE

**Calypso bulbosa*
Habenaria unalascensis elata
Habenaria unalascensis

Orchid Family
Redwood orchid
Rein orchid
Rein orchid

PAPAVERACEAE

Eschscholzia californica

Poppy Family
California poppy

PINACEAE

Picea sitchensis
Pinus ponderosa
Pinus Sabiniana
Pinus tuberculata
Pseudotsuga menziesii

Pine Family
Sitka spruce
Yellow pine
Digger pine
Knob-Cone pine
Douglas-fir

POLEMONIACEAE

Collomia heterophylla
Linanthus bicolor
Linanthus ciliatus
Navarretia squarrosa
Phlox gracilis

Gilia Family

Varied-leaf collomia
 None
 Bristley-leaf linanthus
 Skunkweed
 Slender phlox

POLYGONACEAE

Rumex Acetosella

Buckwheat Family

Sheep sorrel

POLYPODIACEAE

Adiantum Capillus-Veneris
Adiantum pedatum
Athyrium Felix-femina
Dryopteris arguta
Gymnogramme triangularis
Pellaea andromedaefolia
Pellaea mucronata
Polypodium californicum
Polypodium Glycyrrhiza
Polystichum munitum
Pteridium aquilinum
Woodwardia fimbriata

Fern Family

California maiden-hair fern
 Five-finger fern
 Western lady fern
 Wood fern
 Goldenback fern
 Coffee fern
 Birds-foot fern
 California polypody
 Licorice fern
 Sword fern
 Braken fern
 Chain fern

PORTULACACEAE

Calandrinia caulescens menziesii
Montia perfoliata

Purslane Family

Red maid
 Miner's lettuce

PRIMULACEAE

Anagallis arvensis
Dodecatheon Hendersonii

Primrose Family

Poor man's weather-glass
 Shooting star

RANUNCULACEAE

Aquilegia formosa
Delphinium decorum
Delphinium nudicaule
Ranunculus californicus
Ranunculus muricatus

Buttercup Family

Columbine
 Blue larkspur
 Red larkspur
 California buttercup
 None

RHAMNACEAE

Ceanothus cuneatus
Ceanothus Parryi

Buckthorn Family

Common buck brush
 Lady-bloom

ROSACEAE

Cercocarpus betuloides
Fragaria californica
Holodiscus discolor
Photinia arbutifolia
Physocarpus capitatus
Rosa californica
Rubus procerus
Rubus vitifolius

Rose Family

Mountain mahogany
 Wild strawberry
 Cream bush
 Toyon
 Nine bark
 California wild rose
 Himalaya berry
 California blackberry

SAPINDACEAE

Aesculus californicus

Buckeye Family

California buckeye

SAXIFRAGACEAE

Heuchera micrantha
Lithophragma affinis
Lithophragma heterophylla
Saxifrage californica
Whipplea modesta

Saxifrage Family
Alum root
Woodland star
Woodland star
California saxifrage
Modesty

SCROPHULARIACEAE

Castilleja affinis
Collinsia heterophylla
Collinsia sparsiflora
Digitalis purpurea
Diplacus aurantiacus
Mimulus douglasii
Mimulus guttatus
Pedicularis densiflora

Figwort Family
Indian paintbrush
Chinese houses
Collinsia
Foxglove
Sticky monkey flower
Purple monkey flower
Common monkey flower
Indian warrior

TAXODIACEAE

Sequoia sempervirens

Redwood Family
Redwood

UMBELLIFERAE

Osmorhiza chilensis
Sanicula bipinnatifida
Sanicula laciniata
Sanicula Menziesii

Parsley Family
Sweet cicely
Purple sanicle
Coast sanicle
Gamble weed

VALERIANACEAE

Plectritis ciliosa

Valerian Family
Long-spurred plectritis

VIOLACEAE

Viola glabella
Viola lobata

Violet Family
Stream violet
Pine violet

VITACEAE

Vitis californica

Vine Family
California wild grape

Appendix C

A PARTIAL LISTING OF WILDLIFE — BOTHE-NAPA VALLEY SP AND BALE GRIST MILL SHP

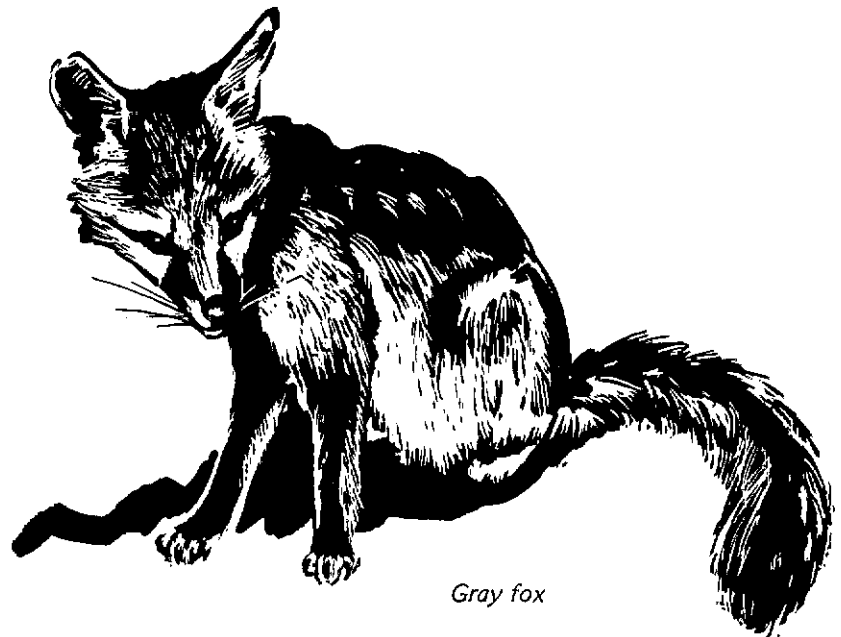
MAMMALS

The observed frequency within the park is indicated by the numbers in the right margin according to the following code:

- | | |
|-----------------|---|
| (1) very common | (4) scarce |
| (2) common | (5) formerly present but probably not anymore |
| (3) occasional | |

<i>Bassariscus astutus raptor</i> (Distributed in heavily forested areas)	Ring-tailed cat	(4)
<i>Canis latrans ochropus</i>	California coyote	(4)
<i>Citellus beecheyi douglasii</i> (Common in grassland and open areas)	Douglas ground squirrel	(1)
<i>Dipodomys heermanni californicus</i> (Inhabits chaparral areas)	Kangaroo rat	(3)
<i>Eutamias sonomae</i> (Found in Douglas-fir and redwood forests)	Sonoma chipmunk	(4)
<i>Felis concolor californica</i>	California mountain lion	(4)
<i>Lepus californicus</i> (Most common where grassland joins brushland)	California jack-rabbit	(2)
<i>Lynx rufus californicus</i> (Inhabits forest and brushland)	California wildcat	(4)
<i>Mephitis mephitis</i> (Most common where grassland meets forest of chaparral)	N. Calif. striped skunk	(2)
<i>Mustela frenata munda</i>	Redwood weasel	(5)
<i>Neotoma fuscipes Baird</i> (Inhabits heavy forest and chaparral throughout the county)	Dusky-footed wood rat	(3)
<i>Odocoileus hemionus columbianus</i>	Black-tailed deer	(1)
<i>Peromyscus maniculatus gambelii</i>	Gambel white-footed mouse	(2)

<i>Peromyscus truei gilberti</i>	Gilbert white-footed mouse	(2)
<i>Procyon lotor psora</i> (Abundant throughout forest and brushland)	California raccoon	(3)
<i>Sciurus griseus</i> (Numbers subject to great fluctuation probably due to disease)	Gray squirrel	(2)
<i>Spilogale gracilis phenax</i> (Common in forest and brushland throughout the county)	Spotted skunk	(4)
<i>Sylvilagus bachmani tehamoe</i>	Brush rabbit	(4)
<i>Taxidea taxus neglecta</i>	Badger	(5)
<i>Thomomys bottae agriculturalis</i>	Pocket gopher	(3)
<i>Urocyon cinereoargenteus townsendii</i>	Gray fox	(3)
<i>Ursus americanus altifrontalis</i>	Black bear	(5)



Gray fox

OTHER MAMMALS (Frequency not observed)

This list is comprised of mammals that were either observed or are known to occupy the type of habitats found in this area.

<i>Didelphis marsupialis</i>	Common opossum
<i>Eptesicus fuscus</i>	Big brown bat (Evening bat)
<i>Lasiurus borealis</i>	Red bat (Evening bat)
<i>Lasiurus cinereus</i>	Hoary bat (Evening bat)
<i>Lepus californicus</i>	Blacktailed hare
<i>Microtus californicus</i>	California meadow mouse
<i>Myotis californicus</i>	California myotis (Evening bat)
<i>Myotis evotis</i>	Longeared myotis (Evening bat)
<i>Myotis volans</i>	Hairy-winged myotis
<i>Myotis yumanensis</i>	Yuma myotis (Evening bat)
<i>Neotoma fuscipes Baird</i>	Dusky-footed wood rat
<i>Perognathus californicus Merriam</i>	California pocket mouse
<i>Peromyscus boylii</i>	Brush mouse
<i>Peromyscus maniculatus</i>	Deer mouse
<i>Peromyscus truei</i>	Pinyon mouse
<i>Pipistrellus hesperus</i>	Western pipistrelle (Evening bat)
<i>Reithrodontomys megalotis</i>	Western harvest mouse
<i>Scapanus latimanus</i>	Broad-handed mole
<i>Sorex ornatus</i>	Ornate shrew
<i>Sorex pacificus</i>	Pacific shrew
<i>Sorex trowbridgii</i>	Trowbridge shrew
<i>Sorex vagrans</i>	Vagrant shrew

AMPHIBIANS

<i>Ambystoma gracile</i>	Northwestern brown salamander
<i>Ambystoma tigrinum</i>	California tiger salamander
<i>Bufo boreas</i>	California (Western) toad
<i>Taricha granulosa</i>	(Northern) Rough-skinned newt
<i>Taricha torosa</i>	California (Coast Range) newt

REPTILES

<i>Charina bottae</i>	Pacific rubber boa
<i>Clemmys marmorata marmorata</i>	Northwestern pond turtle
<i>Cnemidophorus tigris mudus</i>	California whiptail
<i>Coluber constrictor mormon</i>	Western yellow-bellied racer
<i>Crotalus viridis oreganus</i>	Northern Pacific rattlesnake
<i>Gerrhonotus multicarinatus</i>	California alligator lizard
<i>Heterodon nasicus</i>	Western hog-nose snake
<i>Hysiglena torquata</i>	Western garter snake
<i>Lampropeltis getulus californiae</i>	California kingsnake
<i>Masticophis flagellum ruddocki</i>	San Joaquin whipsnake
<i>Masticophis lateralis lateralis</i>	California striped racer
<i>Pituophis catenifer</i>	Pacific gopher snake
<i>Sceloporus occidentalis</i>	Western fence lizard
<i>Thamnophis elegans</i>	Western garter snake
<i>Thamnophis sirtalis ficti</i>	Valley garter snake
<i>Thamnophis sirtalis infernalis</i>	California red-sided snake

BIRDS

<i>Accipiter cooperii</i>	Cooper's hawk
<i>Accipiter striatus</i>	Sharp-shinned hawk
<i>Aphelocoma coerulescens</i>	Scrub jay
<i>Ardea herodias</i>	Great blue heron
<i>Bombycilla cedrorum</i>	Cedar waxwing
<i>Bubo virginianus</i>	Great horned owl
<i>Buteo jamaicensis</i>	Red-tailed hawk
<i>Buteo lineatus</i>	Red-shouldered hawk
<i>Calypte anna</i>	Anna's hummingbird
<i>Cathartes aura</i>	Turkey vulture
<i>Carpodacus purpurens californicus</i>	California purple finch
<i>Carpodacus mexicanus</i>	House finch
<i>Certhia familiaris</i>	Brown creeper
<i>Chaetura vauxi</i>	Vaux's swift
<i>Colaptes auratus</i>	Common flicker
<i>Colaptes cafer</i>	Red-shafted flicker
<i>Columba fasciata</i>	Band-tailed pigeon
<i>Corvus brachyrhynchos</i>	Common crow
<i>Cyanocitta stelleri</i>	Steller's jay
<i>Dendroica auduboni</i>	Audubon's warbler
<i>Dendrocopos nuttalli</i>	Nuttall's woodpecker
<i>Dendrocopos pubescens</i>	Downy woodpecker
<i>Dendrocopos villosus</i>	Hairy woodpecker
<i>Dendroica petechia</i>	Yellow warbler
<i>Dryocopus pileatus</i>	Pileated woodpecker
<i>Elanus leucurus</i>	White-tailed kite
<i>Empidonax difficilis</i>	Western flycatcher
<i>Euphagus cyanocephalus</i>	Brewer's blackbird
<i>Falco sparverius</i>	American kestrel or Sparrow hawk
<i>Glaucidium gnoma</i>	Pigmy owl
<i>Hesperiphona vespertina</i>	Evening grosbeak
<i>Hylocichla guttata</i>	Hermit thrush
<i>Hylocichla ustulata</i>	Swainson's thrush
<i>Icterus bullocki</i>	Bullock's oriole
<i>Irodoprocne bicolor</i>	Tree swallow
<i>Ixoreus naevius</i>	Varied thrush
<i>Junco oreganus</i>	Oregon junco
<i>Lophortyx californicus</i>	California quail
<i>Loxia curvirostra</i>	Red crossbill
<i>Megasceryle alcyon</i>	Belted kingfisher
<i>Melanerpes formicivorus</i>	Acorn woodpecker
<i>Melospiza melodia</i>	Song sparrow
<i>Mimus polyglottos</i>	Mockingbird
<i>Molothrus ater</i>	Brown-headed cowbird
<i>Myiarchus cinerascens</i>	Ash-throated flycatcher
<i>Myiarchus richardsoni richardsoni</i>	Western wood pewee
<i>Nannushiemalis pacificus</i>	Winter wren
<i>Nuttallornis borealis</i>	Olive-sided flycatcher
<i>Optus asio</i>	Screach owl
<i>Parus inornatus</i>	Plain titmouse
<i>Oreortyx picta</i>	Mountain quail
<i>Parus rufescens</i>	Chestnut-backed chickadee
<i>Perisoreus obscurus griseus</i>	Gray jay
<i>Pheucticus melanocephalus</i>	Black-headed grosbeak

Pipilo erythrophthalmus
Pipilo fuscus
Piranga ludoviciana
Progne subis subis
Psaltriparus minimus
Regulus calendula
Regulus satrapa olivaceus
Sayornis nigricans
Selasphorus rufus
Selasphorus sasin
Sialia mexicana
Sitta carolinensis
Sitta pygmaea
Sphyrapicus varius
Spinus pinus
Spinus psaltria
Spizella passerina
Strix occidentalis
Sturnus vulgaris
Tachycineta thalassina
Thryomanes bewickii
Troglodytes aedon
Turdus migratorius
Vermivora celata
Vireo gilvus
Vireo huttoni
Vireo solitarius
Wilsonia pusilla
Zenaidura macroura
Zonotrichia atricapilla

Rufous-sided towhee
Brown towhee
Western tanager
Purple martin
Common bushtit
Ruby-crowned kinglet
Golden-crowned kinglet
Black phoebe
Rufous hummingbird
Allen's hummingbird
Western bluebird
White-breasted nuthatch
Pigmy nuthatch
Yellow-bellied sapsucker
Pine siskin
Lesser goldfinch
Chipping sparrow
Spotted owl
Starling
Violet-green swallow
Bewick's wren
House wren
Robin
Orange-crowned warbler
Warbling vireo
Hutton's vireo
Solitary vireo
Wilson's warbler
Mourning dove
Golden-crowned sparrow

FISH

Salmo gairdnerii gairdnerii

Steelhead



Shooting Stars