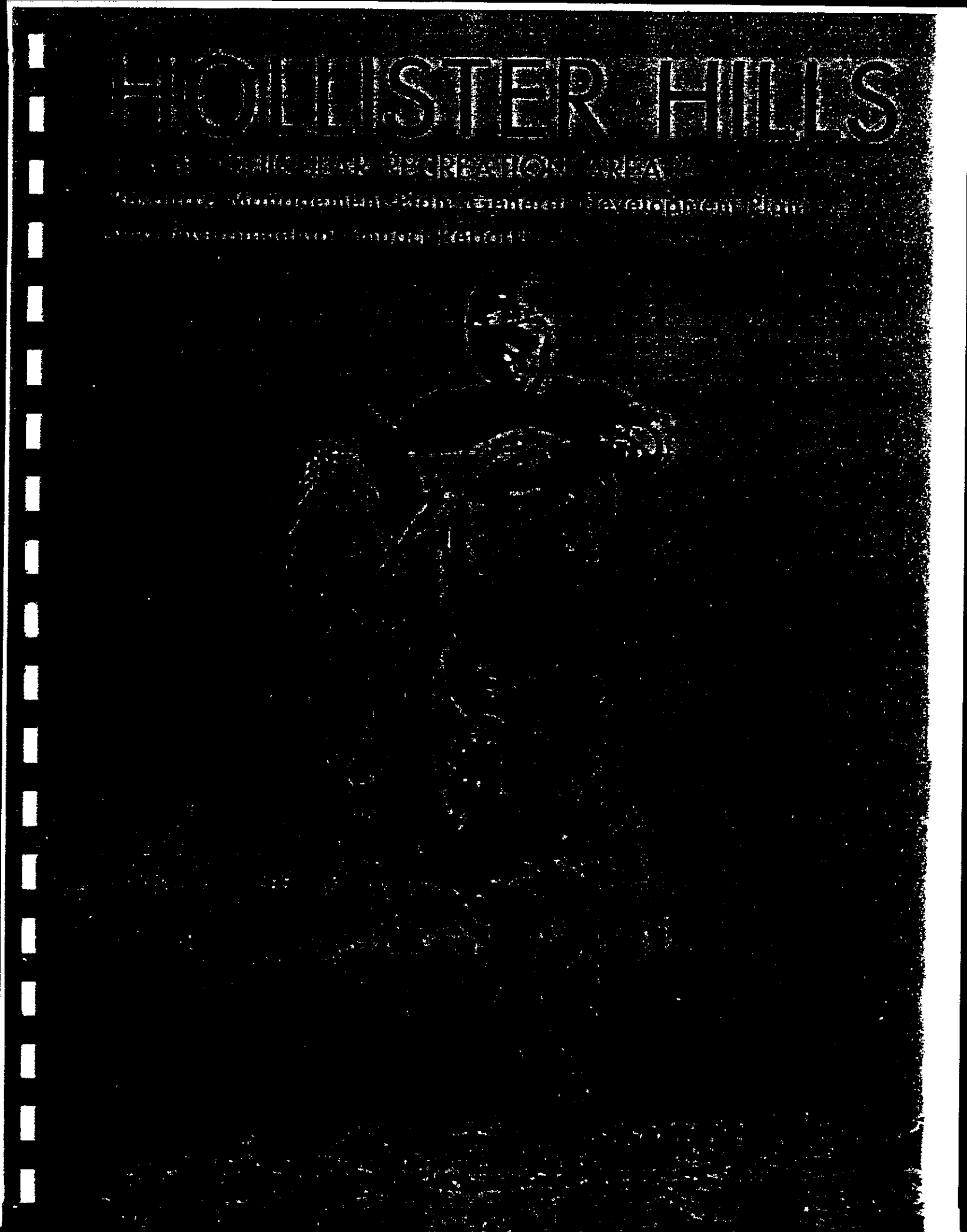
UNIT 244

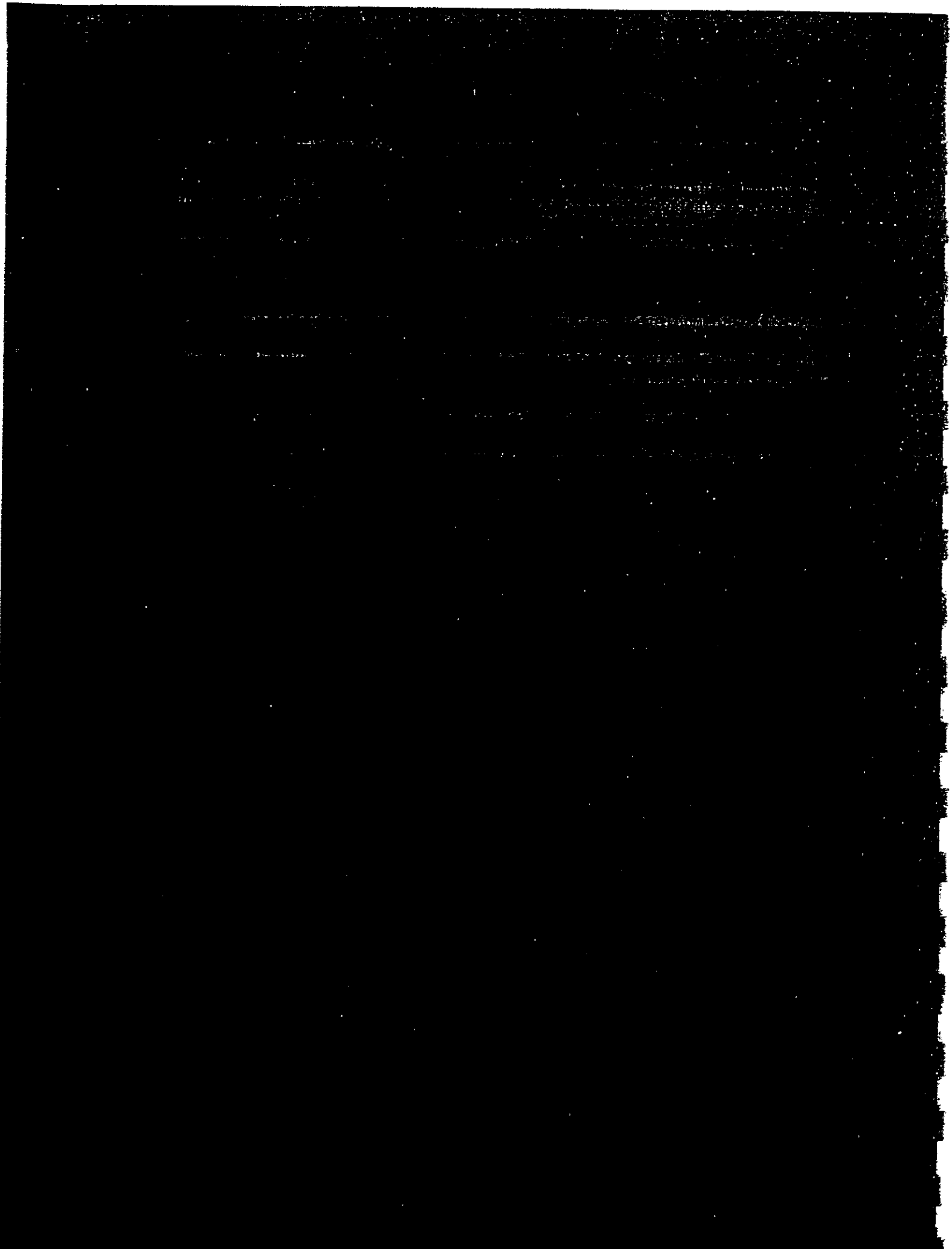
HOLLISTER HILLS STATE VEHICULAR RECREATION AREA

GENERAL DEVELOPMENT PLAN

December 1977

HOLLISTER HILLS





HOLLISTER HILLS

STATE VEHICULAR RECREATION AREA

RESOURCE MANAGEMENT PLAN,
GENERAL DEVELOPMENT PLAN, AND
ENVIRONMENTAL IMPACT REPORT

August 1978

Edmund G. Brown Jr.
Governor

Huey D. Johnson
Secretary for Resources

Russell W. Cahill
Director

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
P. O. Box 2390, Sacramento, CA 95811

STATE OF CALIFORNIA—RESOURCES AGENCY

Edmund G. Brown Jr., Governor

DEPARTMENT OF PARKS AND RECREATION

STATE PARK AND RECREATION COMMISSION

P.O. BOX 2390, SACRAMENTO 95811

Resolution 65-77

Resolution adopted by the
CALIFORNIA STATE PARK AND RECREATION COMMISSION
at its regular meeting in San Jose
December 12, 1977

WHEREAS the Director of the Department of Parks and Recreation has presented to this Commission for approval the proposed Resource Management Plan, General Development Plan and Environmental Impact Report for Hollister Hills State Vehicular Recreation Area; and

WHEREAS, THEREFORE, BE IT RESOLVED that the State Park and Recreation Commission approves the Department of Parks and Recreation "Hollister Hills State Vehicular Recreation Area Resource Management Plan, General Development Plan and Environmental Impact Report, Preliminary" dated August 1977, subject to such environmental changes as the Director of Parks and Recreation shall determine advisable and necessary to implement carrying out the provisions and objectives of said plan.

Contents

List of Figures

SUMMARY

Hollister Hills State Vehicular Recreation Area is a 3,347-acre unit of the State Park System located in the northwestern portion of San Benito County, approximately eight miles south of the city of Hollister. The unit was purchased with monies from the Off-Highway Vehicle Fund in 1975 and classified by the California State Park and Recreation Commission in September, 1976. Prior to state purchase, the unit had been operated for off-highway vehicles under private management.

This document presents a description of the resources of the unit, outlines the policies to be followed for its proper management, and proposes the developments that the Department of Parks and Recreation recommends. In developing these management policies and development plans the special nature of off-highway vehicle recreation was recognized. The major problem -- that of minimizing adverse impacts on the soils, vegetation, and natural streams of the area -- was of prime consideration at all times. At the same time, emphasis was placed on determining exactly what developments would best serve the off-highway recreationist. Citizen participation played an important role in the planning.

It is recommended that the department expand the unit by the acquisition of the 1,826 acres that now separate the Upper Ranch from the Lower Ranch. The following is a summary of all the public facilities that will be provided if these plans are fully implemented. (The summary includes existing facilities and present land ownership.)

--- 2,200 acres devoted exclusively to off-road motorcycle riding with almost 85 miles of trails

--- 867 acres for competitive or club events for motorcycles or four-wheeled vehicles

--- 9 hillclimbs

--- 4 major motorcycle tracks

--- An obstacle course for four-wheeled vehicles

--- 125 family campsites

--- A group camping site that will accommodate 60 persons

--- 25 family picnic sites

--- A group picnic site that will accommodate 200 persons

--- A nature trail

--- A meeting hall for clubs or other groups

--- A display center at which earthquake monitoring techniques will be featured

INTRODUCTION

INTRODUCTION

Plan Process

In October 1975, Hollister Hills became a unit of the California State Park System.

The Public Resources Code provides that the Department of Parks and Recreation shall classify each unit after it is acquired and shall prepare a Resource Management Plan and a General Development Plan. Hollister Hills was classified as a State Vehicular Recreation Area by the California State Park and Recreation Commission at its meeting in September 1976. This document is in response to the mandate of the Public Resources Code that requires the submission of the two plans for hearing and consideration by the State Park and Recreation Commission. In addition, this document includes an Environmental Impact Report in conformance with the requirements of the California Environmental Quality Act.

Prior to the Commission's hearing, a number of public meetings were conducted for the purpose of gathering input and involving the public in the planning of Hollister Hills. During the initial planning phase, over 2,000 questionnaires were distributed among individuals, special interest groups, and local governments to determine a user profile and establish the desires and aspirations of prospective users. (A sample of the questionnaire is found in Appendix A.) Furthermore, three public meetings were held in San Jose to discuss the general plan for development of Hollister Hills SVRA. In addition, one meeting was held on site with representatives of off-road vehicle clubs. A tentative plan was developed as a result of these meetings and presented to the Hollister City Council.

Input derived from these meetings was instrumental in developing this plan and has shaped many of the concepts presented. One of the recurring comments received from the public was that money from the Off-Highway Vehicle (OHV) Fund should be used for purchasing additional OHV recreational lands rather than for developing facilities. The main concern of off-highway vehicle enthusiasts is the acquisition of land for riding, not fancy campgrounds, picnic areas, interpretive programs, and the like.

Report Format

This report is divided into five sections: Introduction; Background Material; Resource Management Plan; General Development Plan; and Environmental Impact Report. The "hurried" reader can get an overview of this project if he skims the report and concentrates on the Introduction; the Resource Management Policies section of the Resource Management Plan; the Existing and Proposed Facilities section and the Acquisition section of the General Development Plan; and the Alternatives to the Project section and the Significant Environmental Effects section of the Environmental Impact Report.

Goals and Objectives

The goals and objectives of the planning process are to produce a comprehensive and flexible plan that provides policies for operation and guidelines for development of Hollister Hills SVRA. This report will also provide an informative document for public use.

This is to be both a dynamic and flexible planning tool for the future development of Hollister Hills SVRA. The plan should be reviewed prior to any development proposal and updated to reflect all the current conditions. This document is comprehensive because it is based on a thorough knowledge of all the known environmental as well as recreational resource values.

It is the intent of this report to:

1. Set forth a plan for the continued provision of recreational opportunities, especially for off-highway vehicle enthusiasts;

2. Identify the users of the unit and their demands;

3. Identify the cultural and natural resources of the unit;

4. Set forth management policies with respect to each of the above factors;

5. Delineate any possible environmental impacts that might result from the implementation of the general development plan;

6. Identify existing problems of the unit and suggest possible solutions to these problems;

7. Identify lands outside the existing boundaries that are of prime concern to present and future environmental values and recreational needs of the unit;

8. Provide a guide for the sequence of the development of facilities;

9. Serve as an informational document for the public, unit personnel, the legislature, and local planning entities.

Location and General Description

Hollister Hills State Vehicular Recreation Area is located in the northwest portion of San Benito County in the Gabilan Mountains. The entrance to the unit is off Cienega Road, eight miles south of the city of Hollister.

The Regional Map (Fig. 1) indicates the general location of the unit and its proximity to the heavily populated San Francisco Bay Area. The Vicinity Maps (Figs. 2 & 3) show the location of the unit in relation to other existing vehicular recreation areas. (Appendix C gives descriptive data about these recreation areas.)

The unit has a total of 3,347 acres in two parcels. The smaller parcel, known as the Upper Ranch, comprises approximately 867 acres; the larger parcel, known as the Lower Ranch, comprises approximately 2,480 acres. (Approximately 262 acres of the Upper Ranch area are leased by the state.)

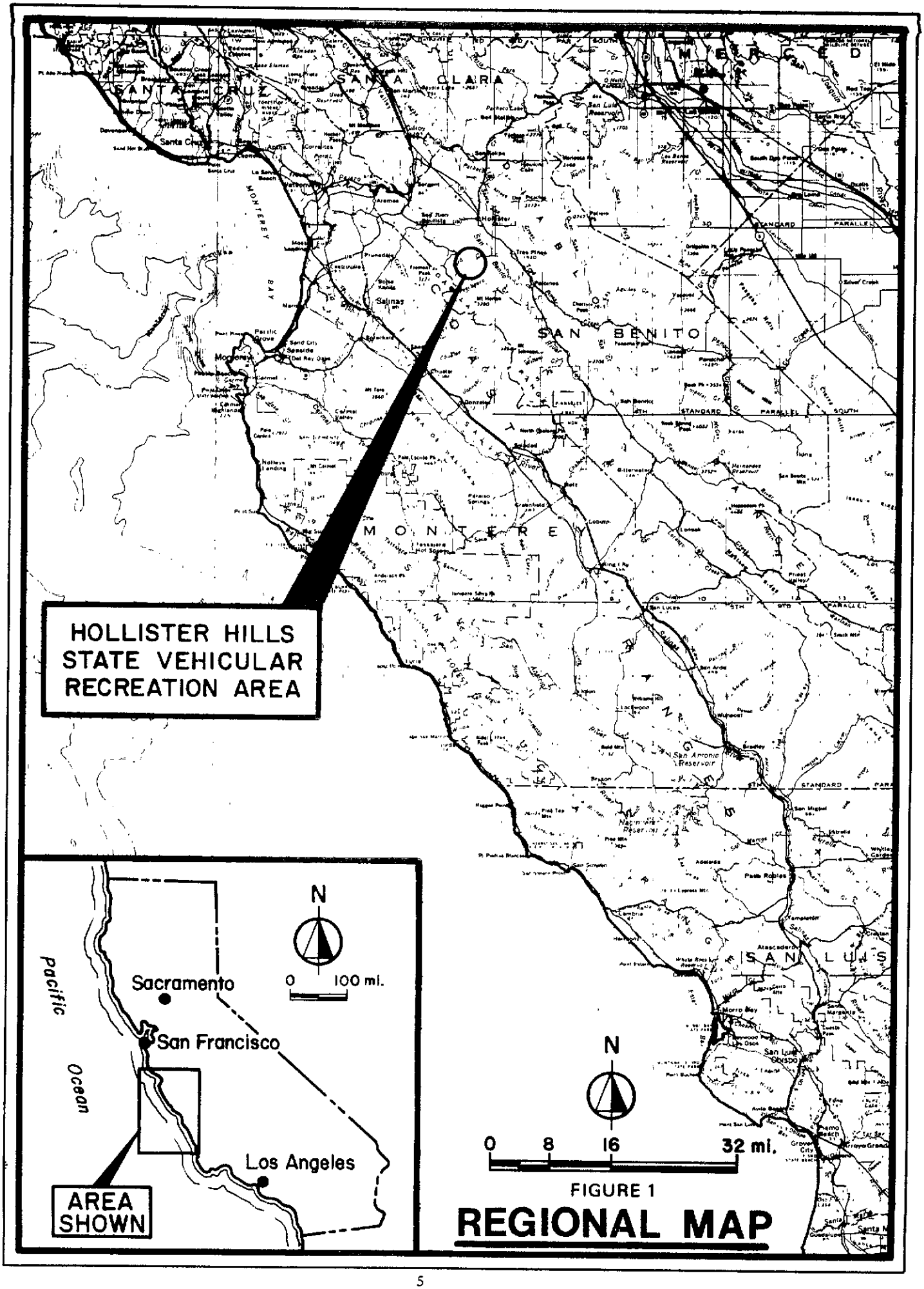


FIGURE 1

REGIONAL MAP

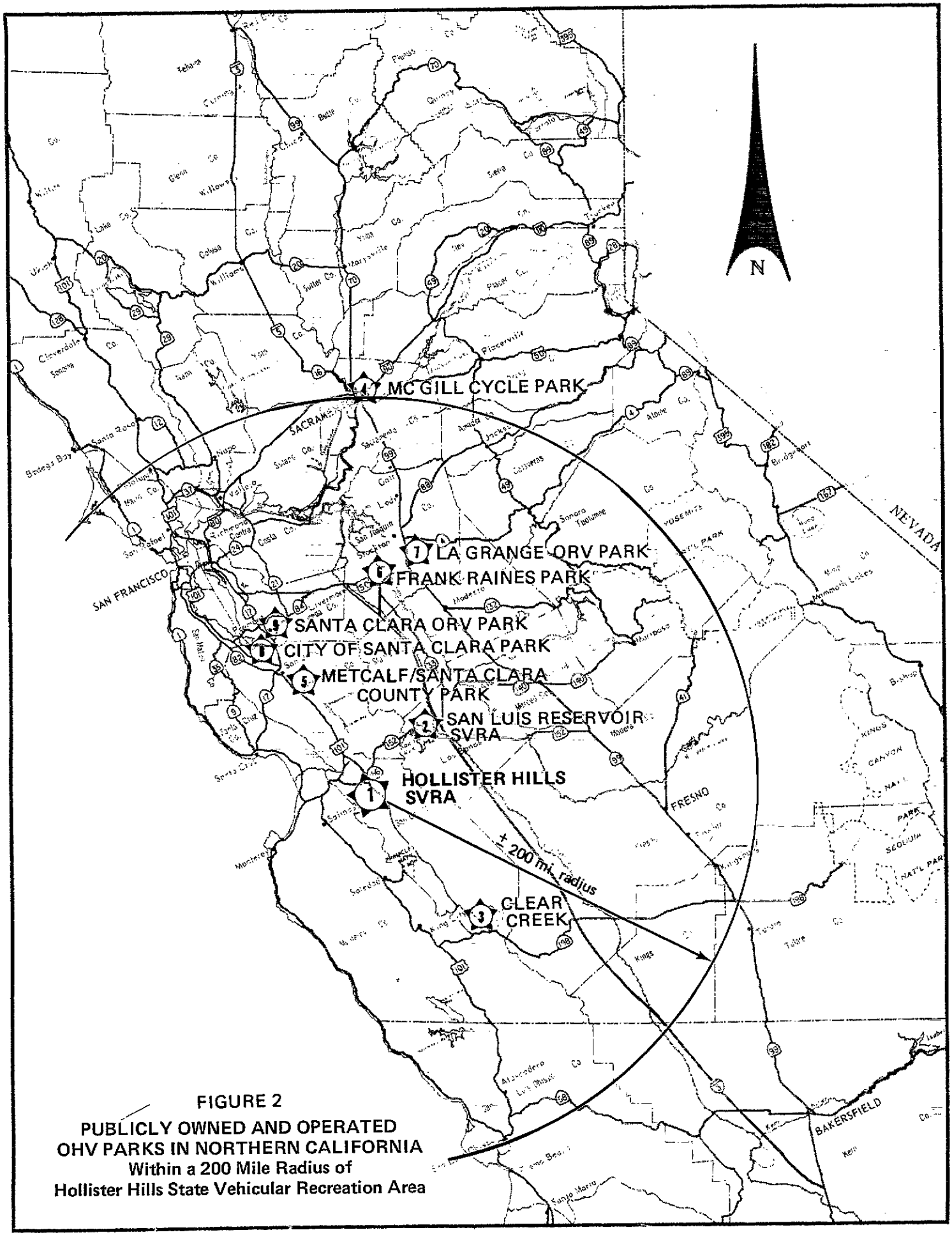


FIGURE 2

PUBLICLY OWNED AND OPERATED OHV PARKS IN NORTHERN CALIFORNIA
Within a 200 Mile Radius of Hollister Hills State Vehicular Recreation Area

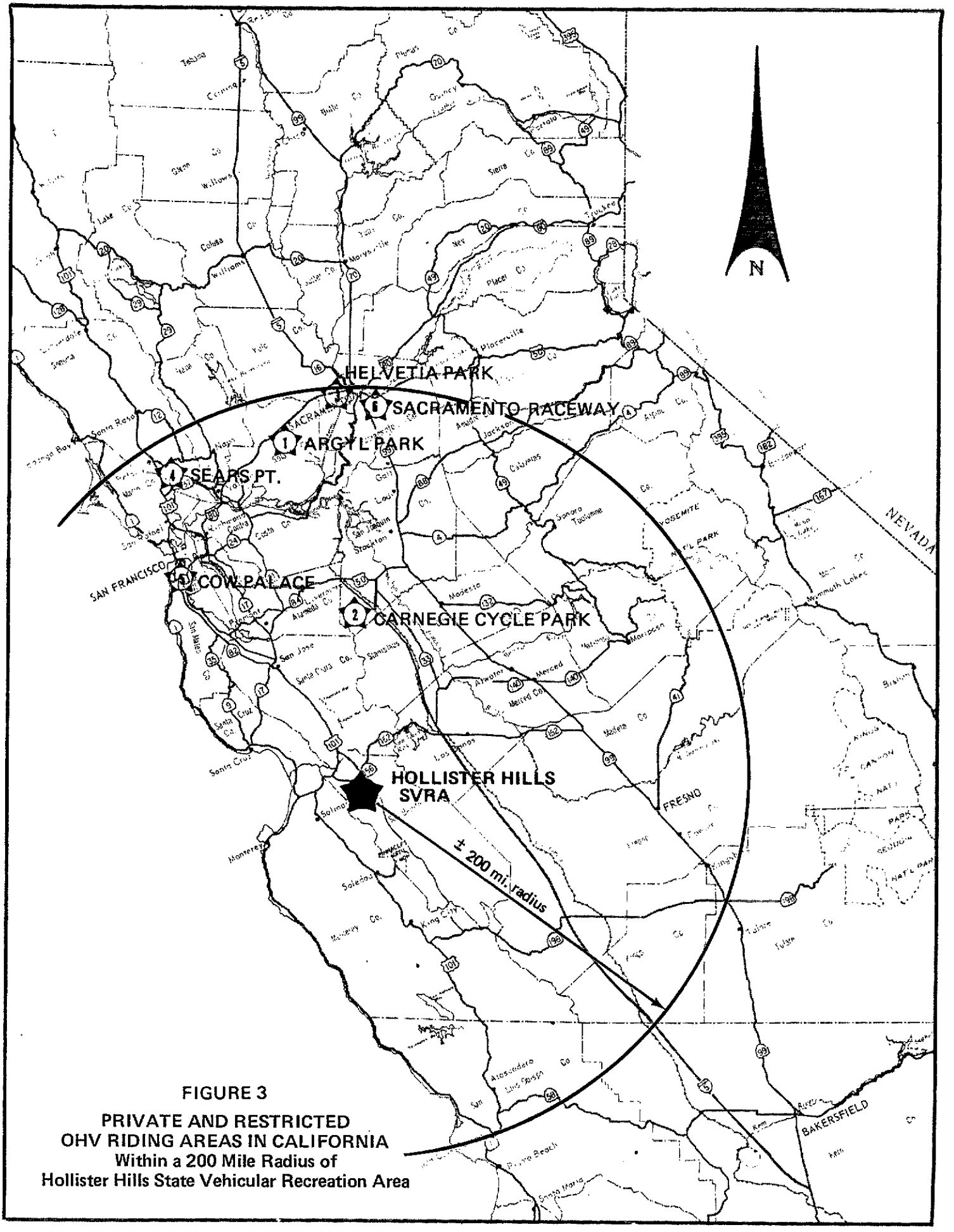


FIGURE 3

PRIVATE AND RESTRICTED
OHV RIDING AREAS IN CALIFORNIA
Within a 200 Mile Radius of
Hollister Hills State Vehicular Recreation Area

Study Area

The study area, shown in Fig. 4, encompasses Hollister Hills State Vehicular Recreation Area and adjacent lands that border the recreation area. Adjacent properties were included in the study area so that the effects of off-highway recreation on such properties could be determined and the desirability of adding additional land to the recreation area could be considered.

Recreational Activities

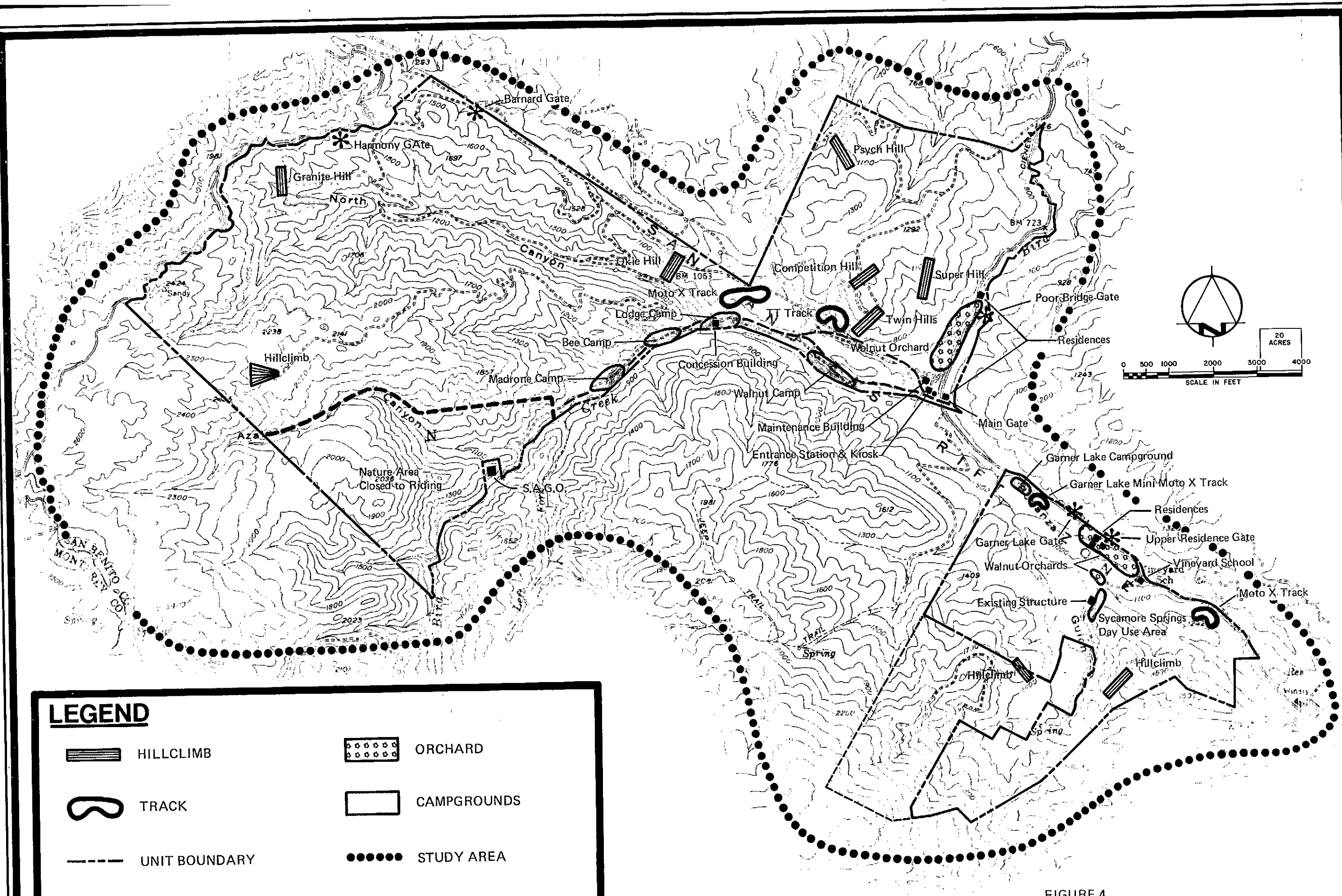
When the Department of Parks and Recreation assumed operation of Hollister Hills SVRA in October of 1975, motorcycle use of the area was well established. At the present time, the Lower Ranch is devoted exclusively to motorcycle recreation; the Upper Ranch is used on a reservation basis by both motorcyclists and drivers of four-wheeled vehicles.

Picnicking and nature study are among the activities enjoyed by the nonriding members of families of motorcyclists and drivers of other off-highway vehicles.

On the 2,480-acre Lower Ranch there are approximately 85 miles of motorcycle trails (see Major Trails Map, p. 10), practice areas for motocross, flat tracks, hillclimbs, and special areas for mini-bikes. There are also four campgrounds that can accommodate approximately 200 families in all.

The 867-acre Upper Ranch is used for club, semi-pro, or promoter competition events on a reservation basis. Currently, the first and third weekends of the month are available for drivers of four-wheeled vehicles; the second and fourth weekends of the month are available for motorcyclists. At present, reservations for any fifth weekend are granted on a "first come-first served" basis. It has been suggested that fifth weekends could be used for conservation purposes.

Informal group camping is allowed at one location on the Upper Ranch.



LEGEND

- HILLCLIMB
- TRACK
- UNIT BOUNDARY
- ORCHARD
- CAMPGROUNDS
- STUDY AREA

NOTE: FOR TRAILS, SEE "MAJOR TRAILS" MAP.

FIGURE 4

EXISTING FEATURES

DESIGNED | DRAWN | CHECKED

DATE | REVISIONS

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION

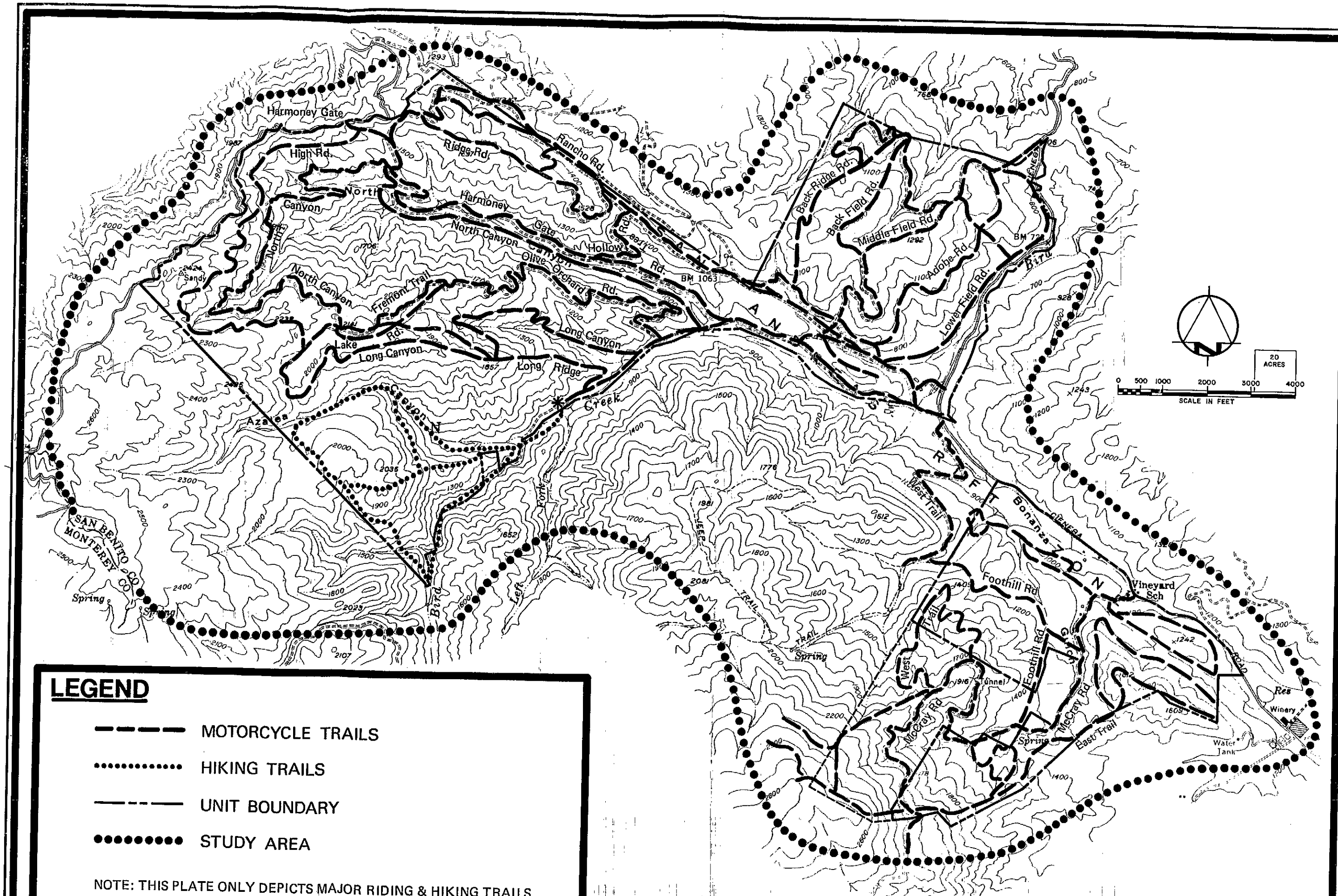
APPROVED ——— DATE ———

HOLLISTER HILLS
STATE VEHICULAR RECREATION AREA

EXISTING FEATURES

DRAWING NO.

SHEET No. OF



LEGEND

- MOTORCYCLE TRAILS
- HIKING TRAILS
- UNIT BOUNDARY
- STUDY AREA

NOTE: THIS PLATE ONLY DEPICTS MAJOR RIDING & HIKING TRAILS

FIGURE 5

MAJOR TRAILS

DESIGNED | DRAWN | CHECKED

DATE | REVISIONS

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION

APPROVED _____ DATE _____

HOLLISTER HILLS
STATE VEHICULAR RECREATION AREA
MAJOR TRAILS

DRAWING No.

SHEET No.
OF

Visitor Attendance

The peak season at Hollister Hills SVRA is between Labor Day and Memorial Day. Summer attendance is low because of the hot, dry weather and dusty trail conditions. While the SVRA is relatively busy on the weekends, use is currently low on weekdays.

At the end of the 1975-76 fiscal year, nine months after the state began operating the unit on October 1, 1975, the attendance at Hollister Hills SVRA was 19,436 -- 75 percent short of projected attendance. This low figure was blamed largely on the high admission fees. At that time fees were being levied according to the following schedule:

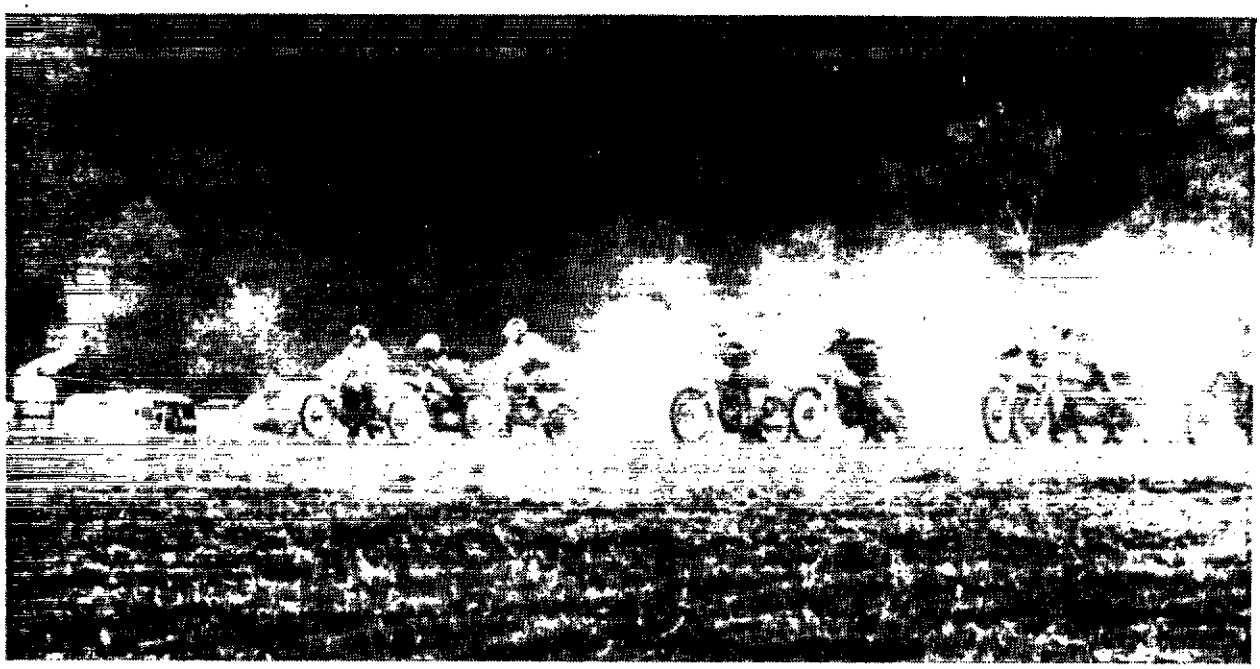
$1.50 for a motorcycle with engine smaller than 80 cc; plus $1.50 per person for day-use fee.

$3.00 for a motorcycle with engine larger than 80 cc; plus $1.50 per person for day-use fee.

$2.00 per person for overnight use; this was in lieu of the $1.50 day-use fee.

The fees were reduced on November 1, 1976. The current charge is $1.00 for all motorcycles, regardless of engine size, although the $1.50 day-use fee and $2.00 overnight-use fee have been retained.

To further promote attendance, organized and competitive events have been held on the Upper Ranch; additional directional signs on nearby major travel routes have been installed; and promotional brochures and maps have been prepared and widely distributed since March 1977. As a result of these efforts, attendance at Hollister Hills SVRA has improved significantly. The record indicates that the attendance was up almost 33 percent in March 1977 compared with the attendance for March 1976.



Future Demand

With a growing population, the increased patrolling of illegal riding areas, and the closure of other private and public riding areas, the future attendance at Hollister Hills SVRA should increase. According to RecTIP No. 7, published in April of 1974, and The Off-Road Vehicle - A Study Report, dated June 1975, both prepared by the California Department of Parks and Recreation, off-highway vehicular recreation will continue to grow and increase. Factors that contribute to this are: (1) the growing population, which is expected to reach 36.6 million in California by the year 2020; (2) increased leisure time; and (3) the continued sales and popularity of off-highway vehicles. There are, however, several unknown factors that may temper this overall growth -- possible fuel shortages, increases in equipment costs, increases in medical expenses, and the availability of riding areas.

Dirt bike sales peaked in 1970 at 139,000. This number of sales fell to 65,000 by 1975 as reported by the Motorcycle Industry Council. However, four-wheeled off-highway vehicle sales have continuously increased, as evidenced by the increasing numbers of four-wheel-drive vehicles in the dealers' showrooms and on the street.

Coupled with the yearly increase in the overall number of off-highway vehicles is an increase in the competition for recreation lands. All these factors, plus the fact that the unit is located in a heavily populated area (see Figs. 6-8), would indicate that increased use of Hollister Hills SVRA is to be expected.

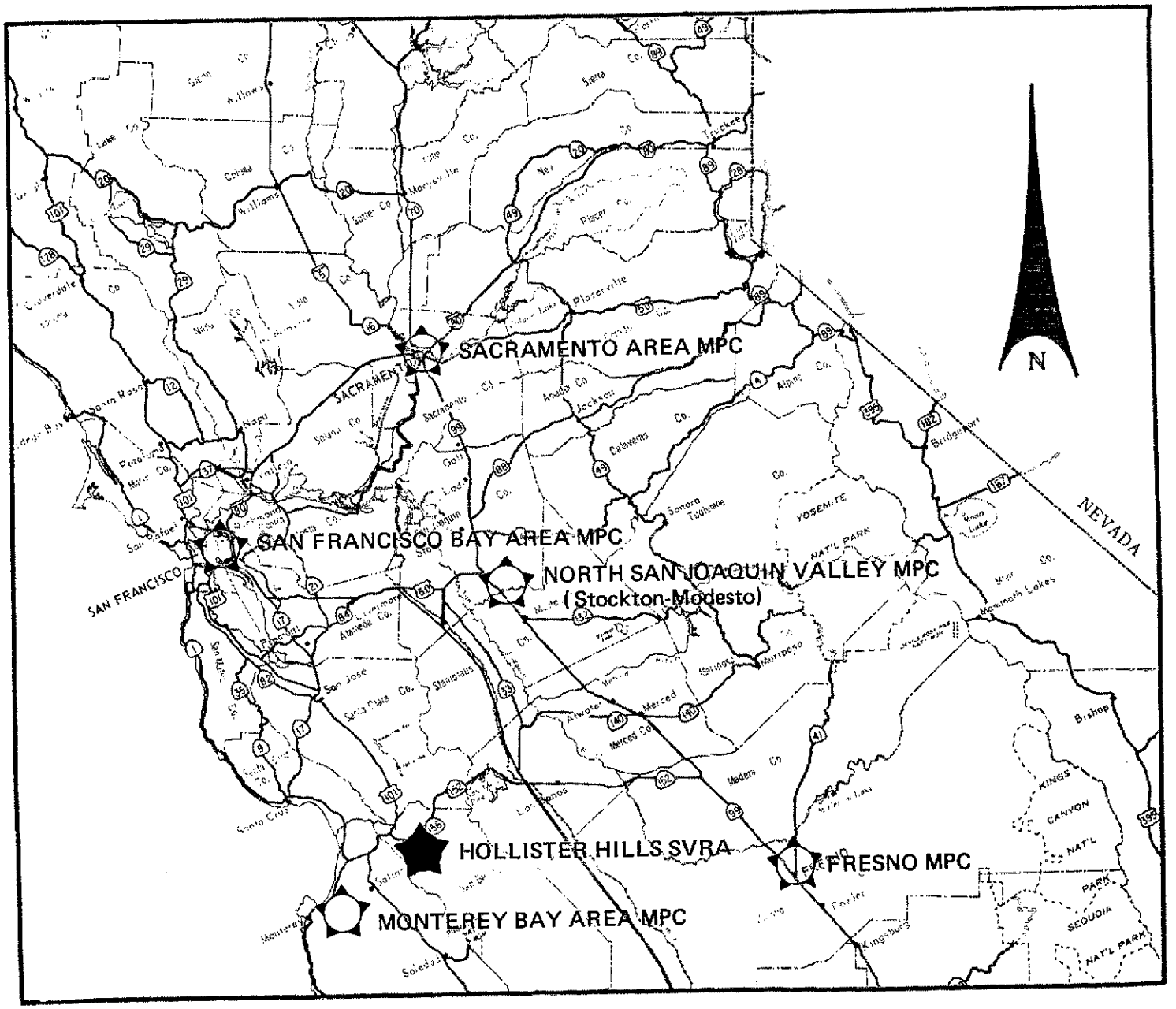


FIGURE 6 **HOLLISTER HILLS STATE VEHICULAR RECREATION AREA PROXIMITY OF MAJOR POPULATION CENTERS (MPC)**

	TRAVEL TIME ZONE	POPULATION 1976*
Monterey Bay Area MPC	0-1 Hr.	422,800
San Francisco Bay Area MPC	1-2 Hr.	4,839,700
North San Joaquin Valley MPC (Stockton-Modesto)	1-2 Hr.	527,400
Sacramento Area MPC	2-4 Hr.	887,500
Fresno MPC	2-4 Hr.	448,600
Kern MPC (Bakersfield MPC)	2-4 Hr.	346,400

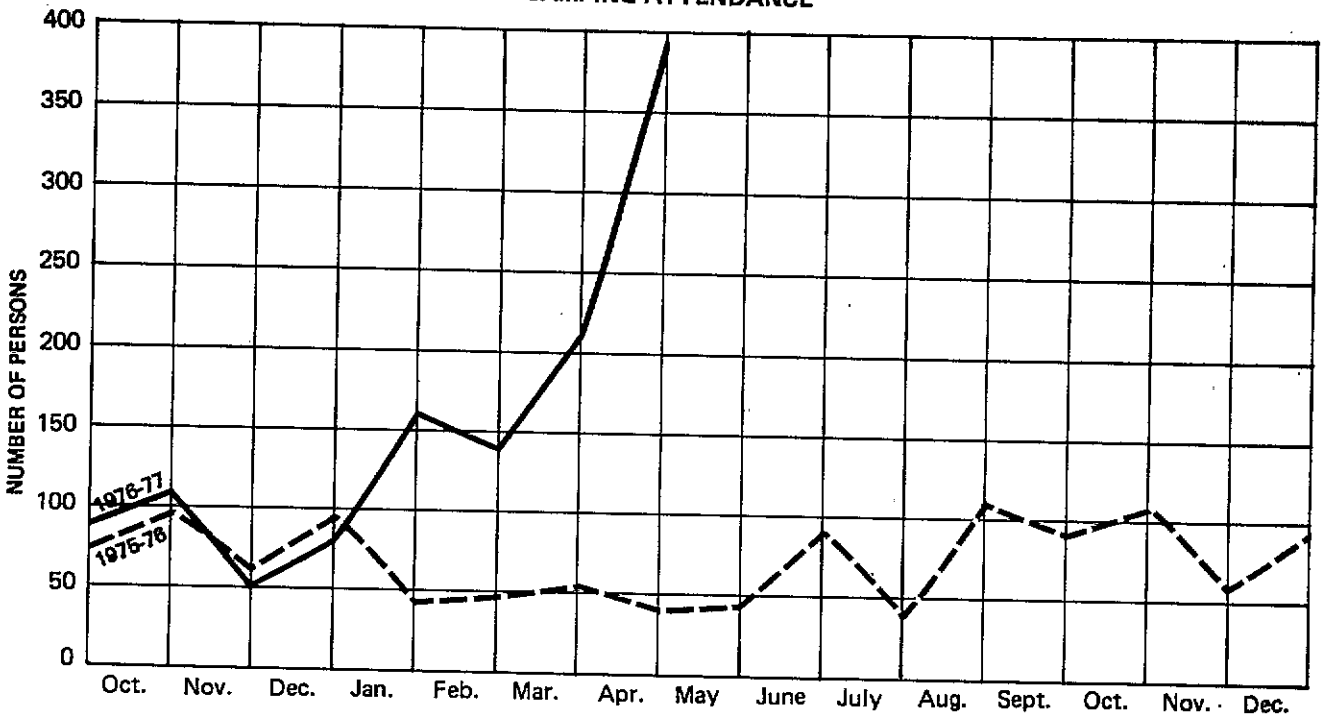
*Population estimates from California Department of Finance, Population Estimate, of California Cities & Counties, Population Research Unit Report 76 E-1, May 14, 1976.

HOLLISTER HILLS SVRA

1975-1977

CAMPING ATTENDANCE

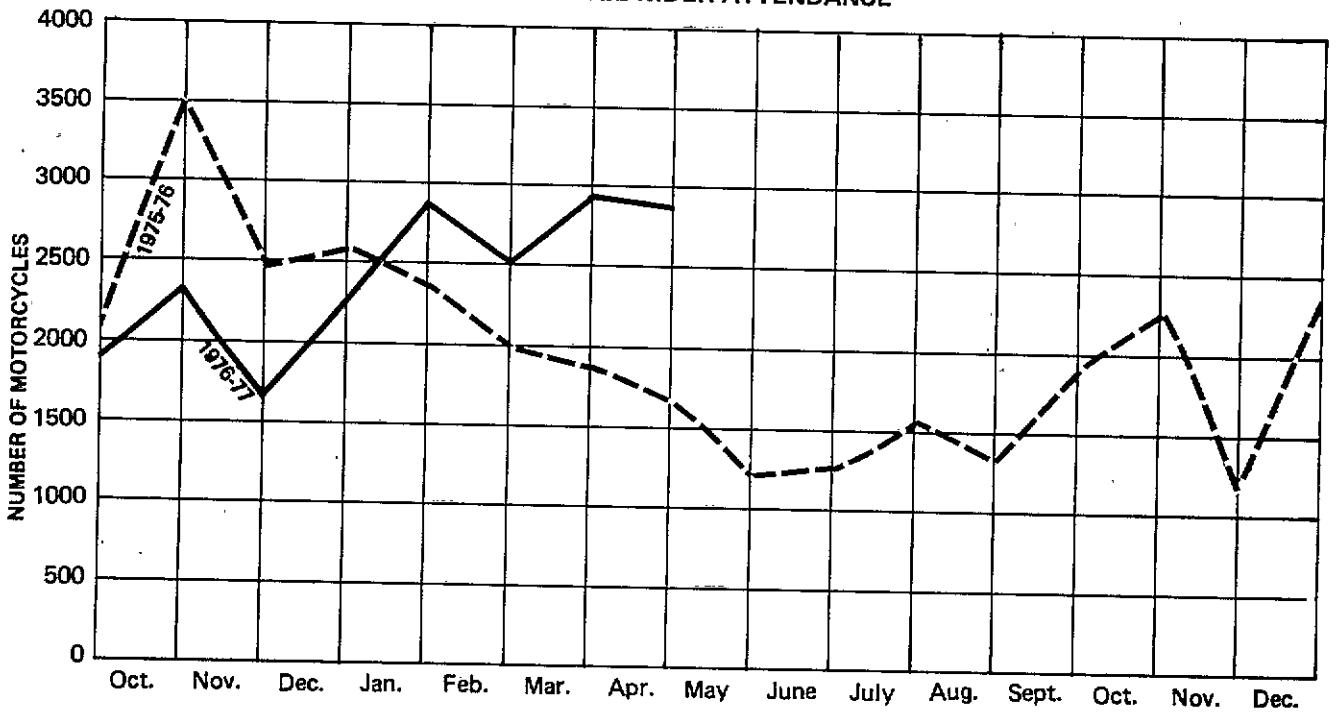
FIGURE 7



1975-1977

MOTORCYCLE RIDER ATTENDANCE

FIGURE 8



BACKGROUND INFORMATION

BACKGROUND INFORMATION

The resources of this area were investigated and documented in the resource inventory report prepared by the Department of Parks and Recreation. This report is available for inspection. The following maps and information highlight some of the significant resources and background material of this unit.

Climate

The climate of the Gabilan Range, in which Hollister Hills State Vehicular Recreation Area is located, is a typical Mediterranean climate with marine influences, characterized by summer fogs and winter rains.

During summer months between May and October, the Hollister Hills State Vehicular Recreation Area enjoys both inland and coastal climates. Temperatures in the summer may reach 80° to 100°F.

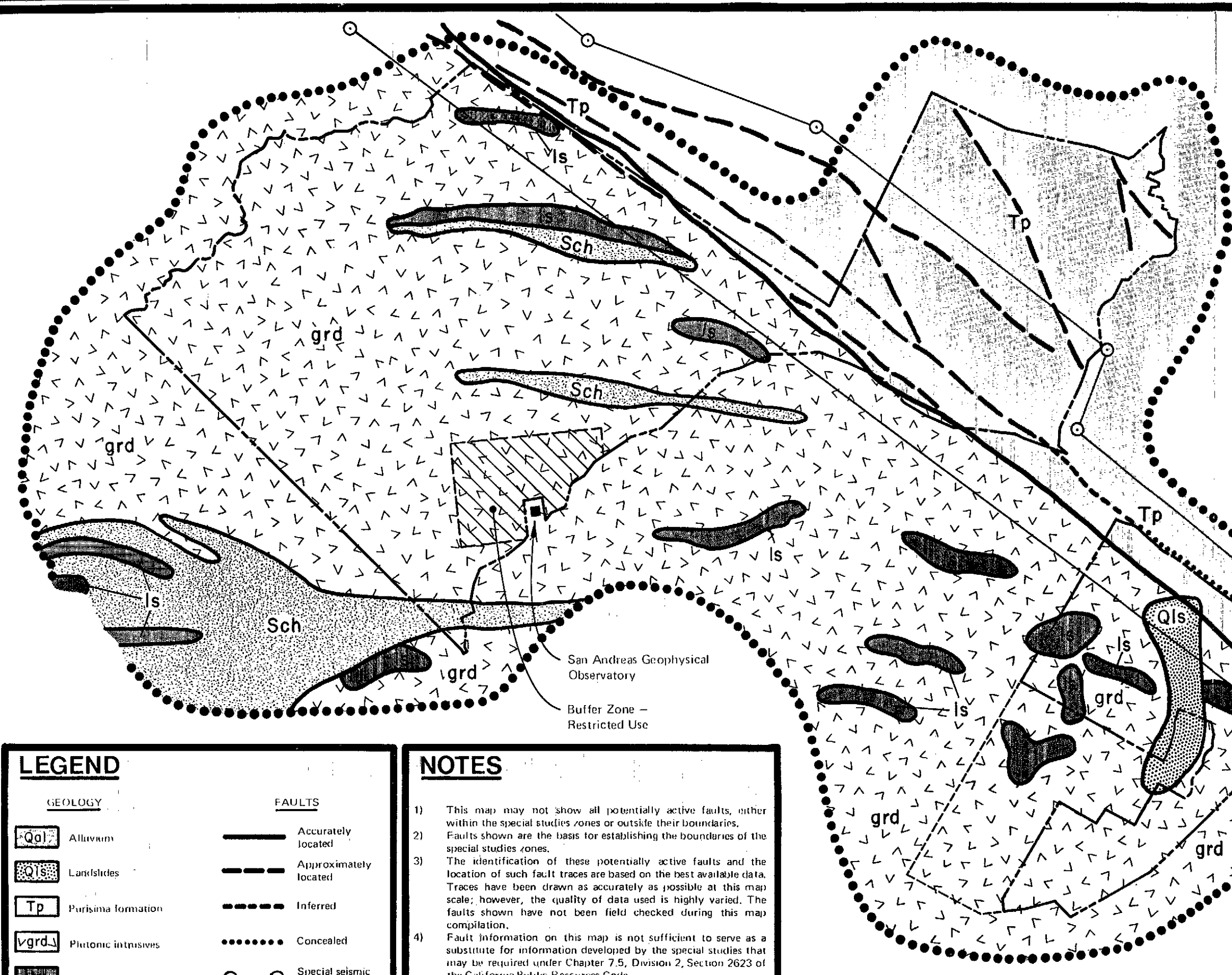
During winter months, the most popular riding months, severe rainstorms produce 13 inches average rainfall at lower elevations to about 23 inches at the higher elevations. Temperatures fall below freezing for short periods during these winter months. Extremes in temperature approach a maximum of 100° F in the summer and 5° F in the winter.

Substantial variation in rainfall and temperature may be observed in locations of close proximity; these different microclimates result from variations in topography, variations in altitude (a range of about 1,800 feet), and the varying exposures of slopes. The influence of ocean air from Monterey Bay produces relatively high humidity, especially at night.

Geology

The San Andreas Fault is a dominant geologic feature of the study area. On the west side of the fault, or rift zone, a granitic intrusion uplifted the Gabilan Range. This uplifting had two important effects on the subsequent soil formation. Although the underlying material was granitic, the overlying material was sedimentary shales and sandstone that resulted from the seas that once existed in the area. As the Gabilan Range rose, this overlying sedimentary material was washed away and deposited on the east side of the fault zone. This resulted in sedimentary material east of the fault and granitic material on the west side of the fault.

The San Andreas Geophysical Observatory (SAGO) was established by the University of California and other governmental agencies to monitor the fault at this location on the Lower Ranch (see Existing Features Map, p. 9). SAGO instruments measure magnitude and intensity of earthquakes as well as the earth's magnetic field, force of gravity, tilt, and acceleration. Because of the sensitive nature of these instruments a deed-restricted zone has been established. Off-highway vehicle use is not permitted within this restricted zone. (See Geology Map, p. 19.)



LEGEND

GEOLOGY		FAULTS	
Qal	Alluvium	———	Accurately located
Qls	Landslides	– – –	Approximately located
Tp	Purisima formation	– – – –	Inferred
grd	Plutonic intrusives	.....	Concealed
ls	Gabilan limestone	⊙——⊙	Special seismic study boundary
Sch	Quartz-mica schist and quartzite		

NOTES

1) This map may not show all potentially active faults, either within the special studies zones or outside their boundaries.
2) Faults shown are the basis for establishing the boundaries of the special studies zones.
3) The identification of these potentially active faults and the location of such fault traces are based on the best available data. Traces have been drawn as accurately as possible at this map scale; however, the quality of data used is highly varied. The faults shown have not been field checked during this map compilation.
4) Fault information on this map is not sufficient to serve as a substitute for information developed by the special studies that may be required under Chapter 7.5, Division 2, Section 2623 of the California Public Resources Code.

Geologic Map of the Hollister Quandrangle, Californ
By N.L. Taliaferro 1945
Division of Mines Bulletin No. 143

FIGURE 9
GEOLOGY

DESIGNED | DRAWN | CHECKED

REVISIONS | DATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION
APPROVED _____ DATE _____

HOLLISTER HILLS
STATE VEHICULAR RECREATION AREA
GEOLOGY MAP

DRAWING No.

SHEET No.
OF

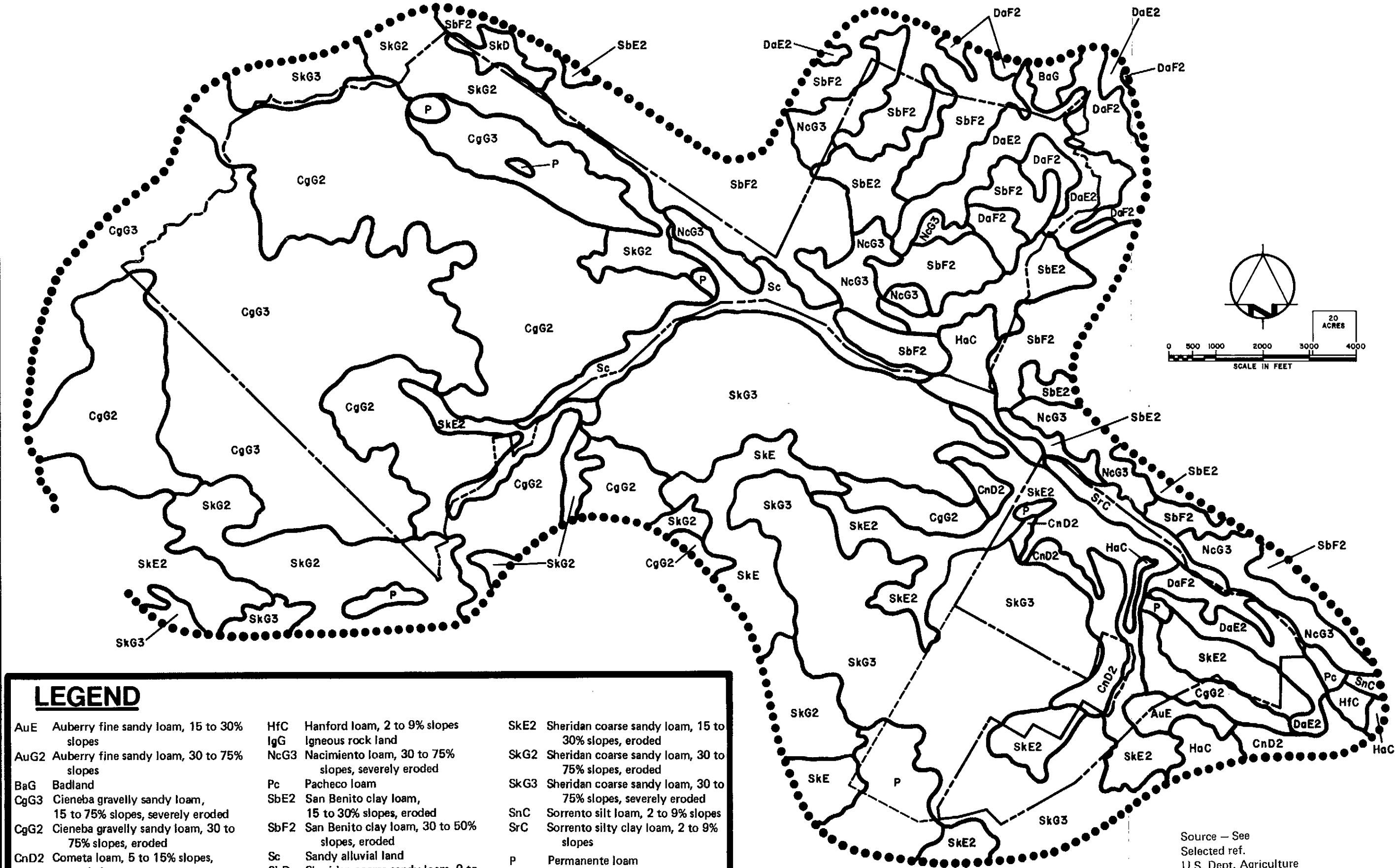
Soils

There are two broad categories of soils at the unit based on underlying parent rocks. Those formed east of the San Andreas Fault are derived from sediments and those west of the fault are derived from granitics.

The granitic soils tend to erode on even moderate slopes if disturbed. These soils are the Cieneba, Sheridan, Permanente, Auberry, and Cometa.

The sedimentary soils have a fairly high clay content and are not as subject to erosion, but may still be the source of serious erosion problems. These include the Nacimiento, Sorrento, San Benito, and Diablo series. (See Soils Map, p. 21.)

Several special reports on the geology and soils of this area are on file with the Department of Parks and Recreation.



LEGEND

AuE	Auberry fine sandy loam, 15 to 30% slopes
AuG2	Auberry fine sandy loam, 30 to 75% slopes
BaG	Badland
CgG3	Cieneba gravelly sandy loam, 15 to 75% slopes, severely eroded
CgG2	Cieneba gravelly sandy loam, 30 to 75% slopes, eroded
CnD2	Cometa loam, 5 to 15% slopes, eroded
DaE2	Diablo clay, 15 to 30% slopes, eroded
DaF2	Diablo clay, 30 to 50% slopes, eroded
HaC	Hanford coarse sandy loam, 2 to 9% slopes
HfC	Hanford loam, 2 to 9% slopes
IgG	Igneous rock land
NcG3	Nacimiento loam, 30 to 75% slopes, severely eroded
Pc	Pacheco loam
SbE2	San Benito clay loam, 15 to 30% slopes, eroded
SbF2	San Benito clay loam, 30 to 50% slopes, eroded
Sc	Sandy alluvial land
SkD	Sheridan coarse sandy loam, 9 to 15% slopes
SkE	Sheridan coarse sandy loam, 15 to 30% slopes
SkE2	Sheridan coarse sandy loam, 15 to 30% slopes, eroded
SkG2	Sheridan coarse sandy loam, 30 to 75% slopes, eroded
SkG3	Sheridan coarse sandy loam, 30 to 75% slopes, severely eroded
SnC	Sorrento silt loam, 2 to 9% slopes
SrC	Sorrento silty clay loam, 2 to 9% slopes
P	Permanente loam

Source – See Selected ref. U.S. Dept. Agriculture

FIGURE 10
SOILS

DESIGNED | DRAWN | CHECKED

DATE | REVISIONS

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION
APPROVED ____ DATE ____

HOLLISTER HILLS
STATE VEHICULAR RECREATION AREA
SOILS MAP

DRAWING No.

SHEET No.
OF

Slope

The topographic character of the study area varies from very steep to flat or gentle slopes. Generally the study area is steep with slopes over 25 percent. Flat to moderate slopes appear within the San Andreas rift zone and along Bird Creek. Also, an ancient landslide on the Upper Ranch appears as an area with gentle to moderate slopes. (See Slope Map, p. 23.)

Surface Hydrology

With the exception of a few minor areas, the entire drainage of the study area flows into Bird Creek and off the property into the San Benito River. Most of the water movement occurs in the winter during periods of heavy rainfall. Soil erosion occurs during these periods. (See Surface Hydrology Map, p. 24.)

LEGEND

- GENTLE, 0-10% SLOPES
- MODERATE, 10-25% SLOPES
- STEEP, OVER 25% SLOPES

Based on U.S.G.S. Quad Sheets by Dept. of Parks & Recreation Planning Staff

FIGURE 11

SLOPE

DESIGNED | DRAWN | CHECKED

REVISIONS | DATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION

APPROVED _____ DATE _____

HOLLISTER HILLS
STATE VEHICULAR RECREATION AREA

SLOPE MAP

DRAWING No.

SHEET No.

OF

Hopper Spring
Grape Spring
Hidden Spring
Azalea Spring
Back Spring
Lignite Spring
Gilbert Spring
Lost Garner Spring
Sheep Spring
Dry Trough Spring
School Spring
Sycamore Spring
Big Garner Spring

20 ACRES
0 500 1000 2000 3000 4000
SCALE IN FEET

LEGEND

- WATERSHED DRAINING INTO DEBRIS CATCHMENT BASIN
- WATERSHED NOT DRAINING INTO DEBRIS CATCHMENT BASIN
- SPRING
- MAN MADE RESERVOIR
- SEASONAL POND
- WATERCOURSE

FIGURE 12
SURFACE HYDROLOGY

DESIGNED | DRAWN | CHECKED

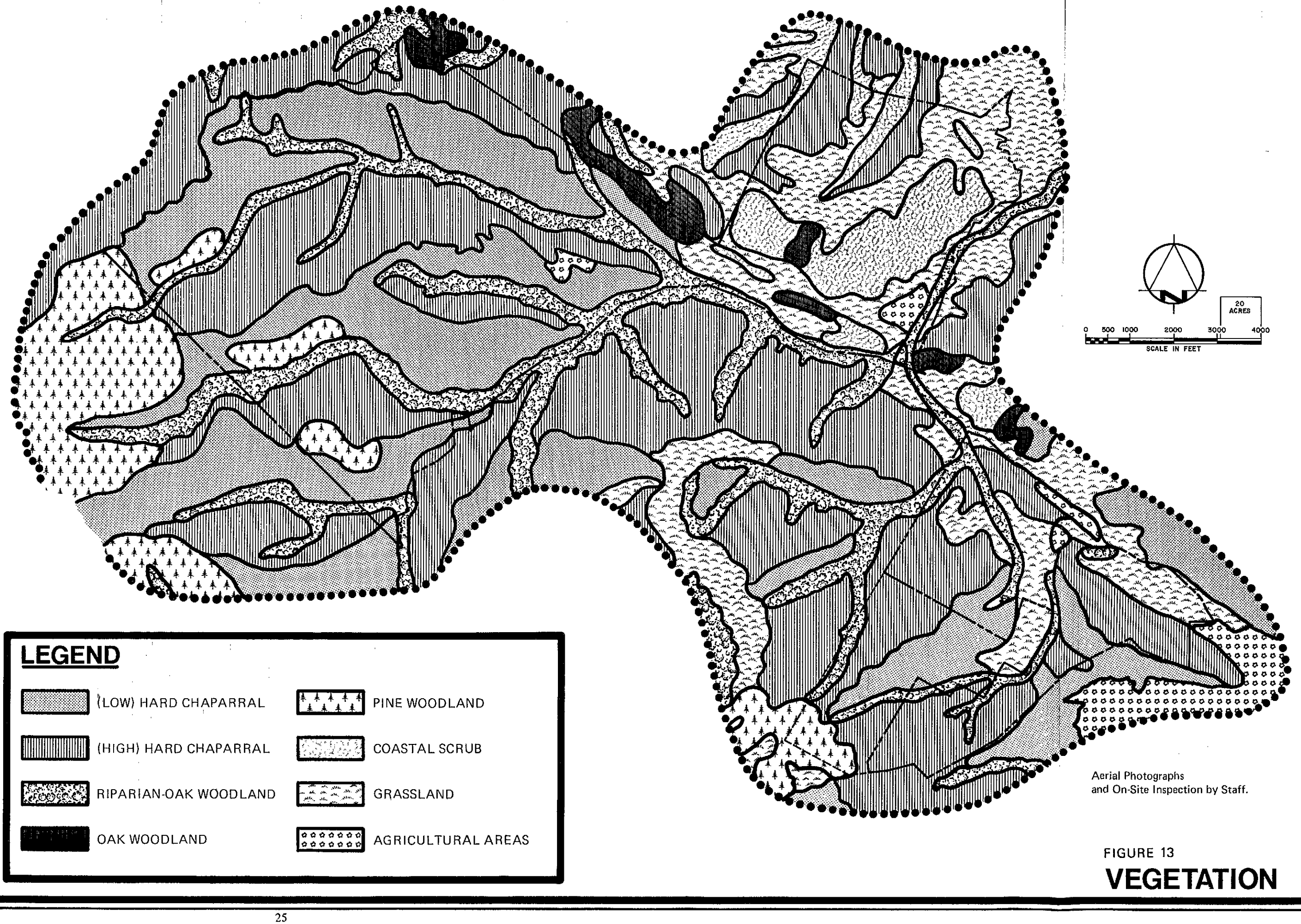
DATE | REVISIONS

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION
APPROVED _____ DATE _____

HOLLISTER HILLS
STATE VEHICULAR RECREATION AREA
SURFACE HYDROLOGY

DRAWING No.

SHEET No.
OF



Aerial Photographs
and On-Site Inspection by Staff.

FIGURE 13
VEGETATION

DESIGNED | DRAWN | CHECKED

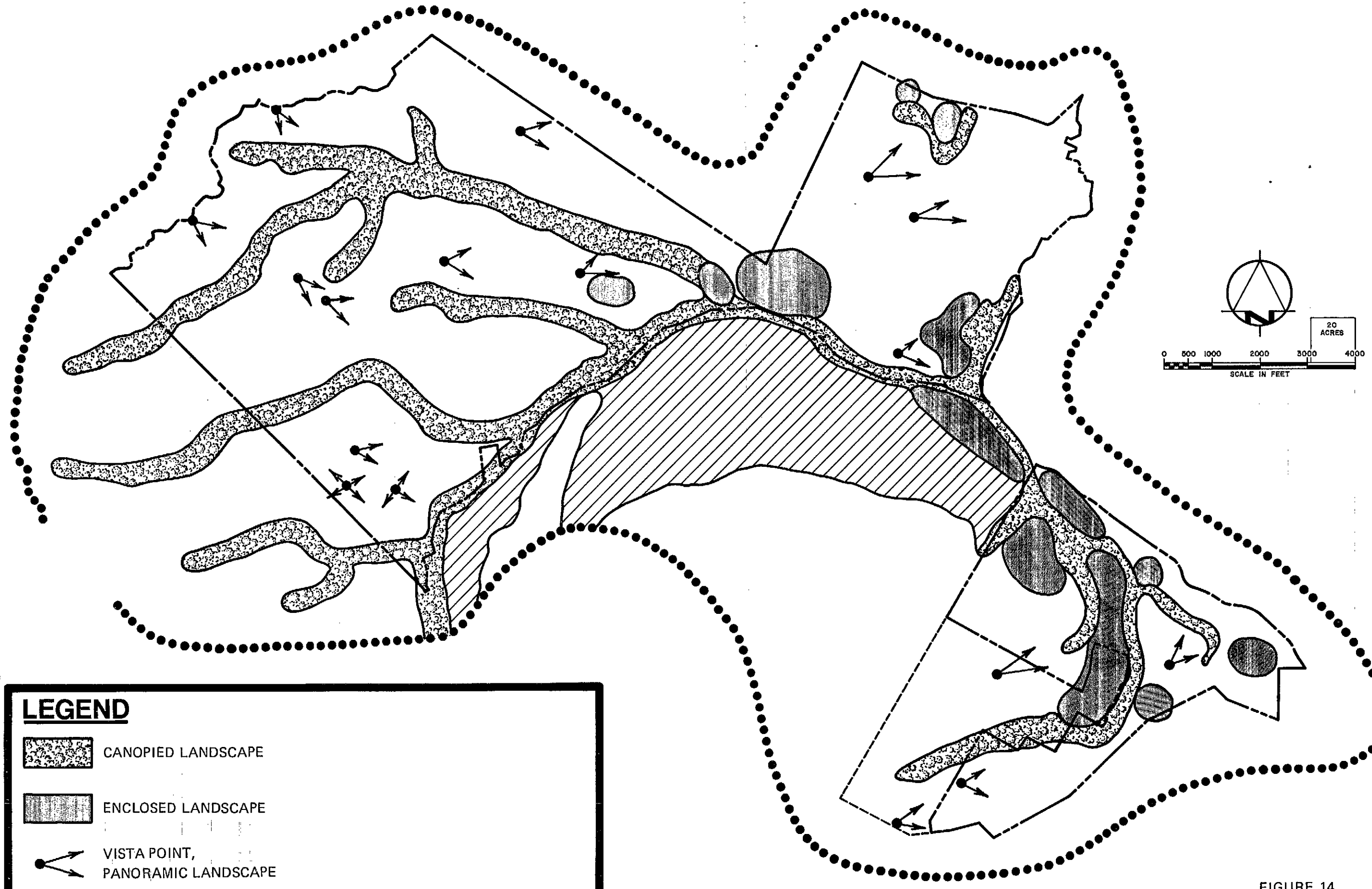
REVISIONS | DATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION
APPROVED_____ DATE_____

HOLLISTER HILLS
STATE VEHICULAR RECREATION AREA
VEGETATION

DRAWING No.

SHEET No.
OF



LEGEND

- CANOPIED LANDSCAPE
- ENCLOSED LANDSCAPE
- VISTA POINT, PANORAMIC LANDSCAPE
- VISUAL RELIEF & BACKGROUND

NOTE: Scenic resources evaluated from within unit boundaries.

FIGURE 14

SCENIC RESOURCES

DESIGNED | DRAWN | CHECKED

REVISIONS | DATE

RESOURCES AGENCY OF CALIFORNIA

DEPARTMENT OF PARKS AND RECREATION

APPROVED _____ DATE _____

HOLLISTER HILLS
STATE VEHICULAR RECREATION AREA

SCENIC RESOURCES

DRAWING NO.

SHEET NO.

OF

Vegetation

The natural-occurring plant communities at Hollister Hills consist of chaparral, riparian-oak woodland, oak woodland, pine woodland, coastal scrub and grassland; small planted orchards complete the existing plant material that lends character and charm to the site.

Chaparral

There are two distinct chaparral communities at the park unit -- hard chaparral (also called low chaparral) on the south-facing slopes and hard chaparral-oak woodland (also called high chaparral) on the north-facing slopes. The prime species comprising the hard chaparral are chamise (Adenostoma fasciculatum) and toyon (Heteromeles arbutifolia). Plants comprising hard chaparral-oak woodland are toyon (Heteromeles arbutifolia), wedgeleaf ceanothus (Ceanothus cuneatus), manzanita (Arctostaphylos sp.), scrub oak (Quercus dumosa), interior live oak (Quercus wislizenii), and mountain Mahogany (Cercocarpus betuloides).

Riparian-Oak Woodland

The riparian plant community along the creeks and drainage channels include sycamore (Platanus racemosa), willows (Salix laevigata and Salix sitchensis), alder (Alnus rhombifolia), and coast live oak (Quercus agrifolia).

Oak Woodland

The oak woodland community includes valley oak (Quercus lobata), blue oak (Quercus douglasii), and coast live oak (Quercus agrifolia).

Pine Woodland

There is a small pine-woodland community at Hollister Hills consisting of Coulter pine (Pinus coulteri) and interior live oak (Quercus wislizenii).

Coastal Scrub

The coastal scrub plant community occurs entirely on the east side of the fault in sedimentary soil. Plants included in this community are California sagebrush (Salvia mellifera), flowering monkeyflower (Mimulus longiflorus), bush mallow (Malacothamnus sp.), and coyote bush (Baccharis pilularis ssp. consanquinea).

Grassland

The annual grassland is characterized by such plants as wild oats (Avena fatua), soft chess (Bromus mollis), ripgut grass (Bromus rigidus), filaree (Erodium cicutarium), and bur clover (Medicago hispida).

Agricultural Lands

Within the unit boundary are walnut and olive orchards which were planted by previous owners. (See Vegetation Map, p. 25.)

The Resource Inventory, on file with the Department of Parks and Recreation, contains a more complete list of plants that are found at this unit.

Wildlife

Animal life is very much in evidence during weekdays when use is minimal. Many species, particularly quail and deer, retreat to more protected areas during peak weekend use.

The lack of permanent water at Hollister Hills precludes the occurrence of a fishery. The water at springs, intermittent streams, sag ponds, and debris catchment areas does provide enough moisture to allow a limited number of amphibians to exist in the area. Salamanders present include the California tiger, Eschscholtz's, California slender, and arboreal salamanders. Frogs include the California red-legged and Pacific tree frogs. The California toad is also present.

Reptiles associated with the moister areas include the coast garter snake and the California red-sided garter snake. In the grassy areas, the western yellow-bellied racer and the gopher snake are found. In the drier and warmer sites, the fence lizard, California side-blotched lizard, California horned lizard, California alligator lizard, California king snake and northern Pacific rattlesnake are found. The Pacific pond turtle is also present.

In the canyons and over ponds, where insect populations are high, several species of bats are present. Also in these moister habitats, such species as the common opossum and the raccoon are found. In the grassy areas, the Botta pocket gopher, blacktailed hare, California meadow mouse, spotted and striped skunk, California ground squirrel, and badger are typical residents. In the brush localities, the common inhabitants are the brush and cottontail rabbits, dusky-footed wood rat, coyote, gray fox, bobcat, blacktailed deer, and feral pigs.

There are a great number of birds found in the area, the more common being the turkey vulture, red-tailed hawk, American kestrel, California quail, mourning

dove, red-shafted flicker, acorn woodpecker, horned lark, scrub jay, common crow, plain titmouse, common bushtit, wrentit, Bewick's wren, Audubon's warbler, house finch, lesser goldfinch, rufous-sided and brown towhee, roadrunners, and white-crowned and golden-crowned sparrows. Coveys of quail and numerous birds can be seen all over the area.

The Resource Inventory, on file with the Department of Parks and Recreation, contains a more complete listing of wildlife found at this unit.

Scenic Values

Scenic resources of Hollister Hills State Vehicular Recreation Area can be characterized by three general types: canopied landscape, enclosed landscape, and panoramic landscape. However, this state park system unit poses special scenic problems because of the scarring of a large portion of the hills and valleys of the unit by riding trail activity.

Canopied Landscape

Canopied landscape refers to the compositional character of the landscape found under the crown cover or within the forest. These scenic qualities are evident under the orchards and along the creekside beds at the unit.

Outstanding scenery is located along the Bird Creek bed with its riparian oak-woodland plant communities. Mature stands of native sycamores, willows, maples, alders, and coast live oak tower above beds of native ferns, shrubs, and groundcovers. Near Hidden Springs in Azaela Canyon and in North Canyon, California nutmeg (Torreya californica), a relatively scarce plant in California, is found. Extensive areas of madrone trees are found in Azalea Canyon and North Canyon; Cottonwood Canyon is filled with unusually tall cottonwoods, sycamores, and live oaks.

Enclosed Landscape

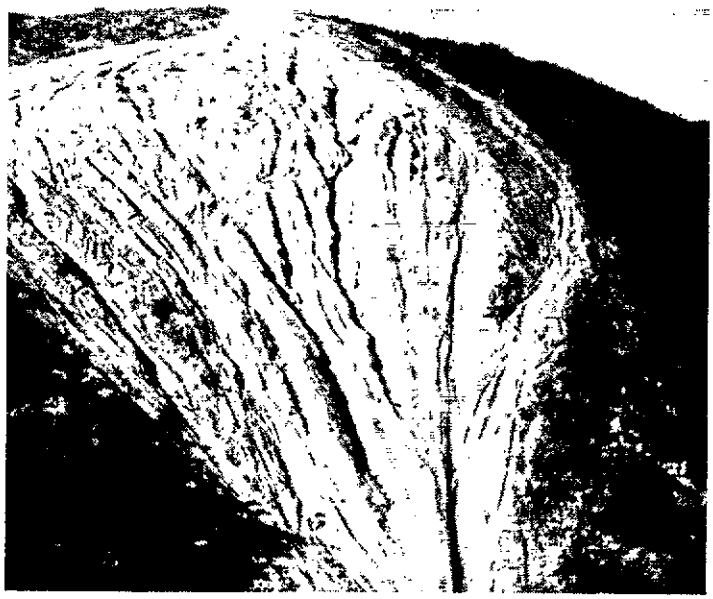
An outdoor space in which unity is dependent upon recognition of bowl-like form or the continuity of sides around a base plane is an enclosed landscape. At Hollister Hills, this type of landscape is characterized by rolling topography and a meadow. This type of open space occurs at such places as the visitor entrance and track areas, the Lower Ranch, and the Big Meadow Area at the Upper Ranch.

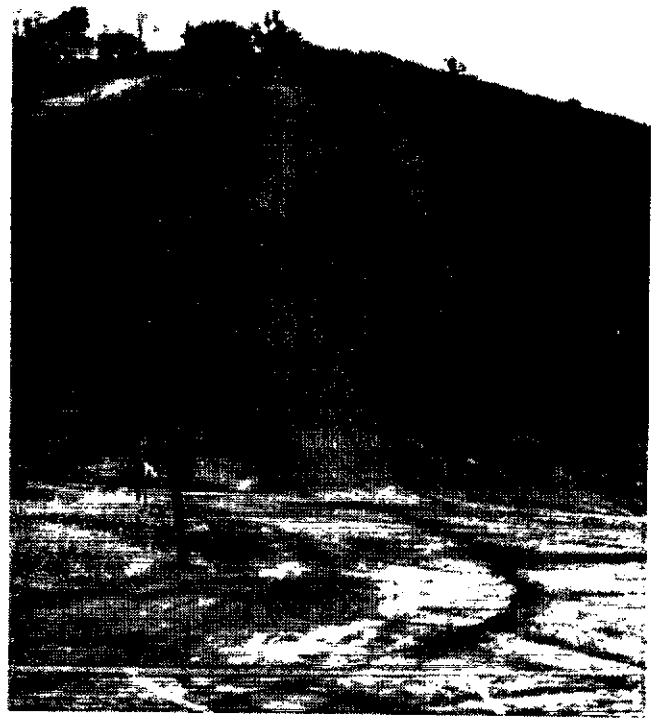
Panoramic Landscape

Beautiful scenic resources are inherent in the outstanding views and vistas from vantage points within the unit. Panoramic views of the valley and rolling fields with orchards, vineyards, and grazing lands against a background of the peaks of the distant Hamilton Range can be seen from vantage points at both the Lower Ranch and the Upper Ranch. (See Scenic Resources Map, p. 26 .)

The Problem of Scarred Landscape

The steep and forested north-facing hill of the neighboring Martin Ranch offers visual relief from the scarred hillsides of the Lower Ranch. Within the boundaries eroded trails, tracks, and hillclimbs of Lower Ranch are





evident from certain vista points at both Lower and Upper ranches. Outside the boundary, the visual scars from off-highway riding are most evident from parts of Cienega Road and Fremont Peak Road. Some of these trails, because of excessive scarring and erosion, have been withdrawn from use and are being partially rehabilitated through natural processes. In general, the visual impact of trail erosion is limited to the local area; however, from the air, such impact would be visible for many miles.

Archeology

The project is situated approximately in the center of what was once Coastanoan territory. Located within Hollister Hills State Vehicular Recreation area are the ancient sites of two Coastanoan villages. The Pais-n and Mutsu-n speaking branch of the Coastanoan tribe lived in the Hollister Hills area and along the San Benito River.

Little is known of Coastanoan social customs except that the chieftainship passed from father to son, divorce was common, and cremation of the dead was practiced. Acorns, usual plant foods, small game, and fish comprised the Coastanoan diet. Large numbers of mortars, pestles, projectile points, and chipping materials have been recovered from Hollister Hills. With the founding of the Franciscan missions, many of the resident Coastanoans moved to the site of the present mission grounds or settled in the immediate vicinity of the missions -- San Juan Bautista, San Jose, and San Carlos. Consequently, the pre-mission way of life and art forms largely disappeared (Kroeber, 1925).

Since very little is known about the Coastanoan epoch, it is especially important that the village sites at Hollister Hills SVRA be protected for study and evaluation.

History

The recorded history of Hollister Hills began in 1839 with the granting of the 54,000-acre Rancho San Justo to Francisco Pacheco by Governor Alvarado and the granting of Rancho Cienega del Gabilan to Antonia Chavez in 1843.

It is reported that John C. Fremont, a captain in the U.S. Army Topographical Engineers, and his men camped by Bird Creek near the present unit headquarters following an encounter with the Mexican government in 1848.

Jesse Whitton, the great-grandfather of the last owner of the park property, Mr. Howard Harris, saw and fell in love with the Hollister area while traveling with Fremont as a surveyor and map maker. When Whitton returned to purchase the Hollister Hills area in 1865, another man, Ike Lewis, had already claimed the land. According to the family story, Whitton had to pay $50 per acre, ten times what Lewis had originally paid.

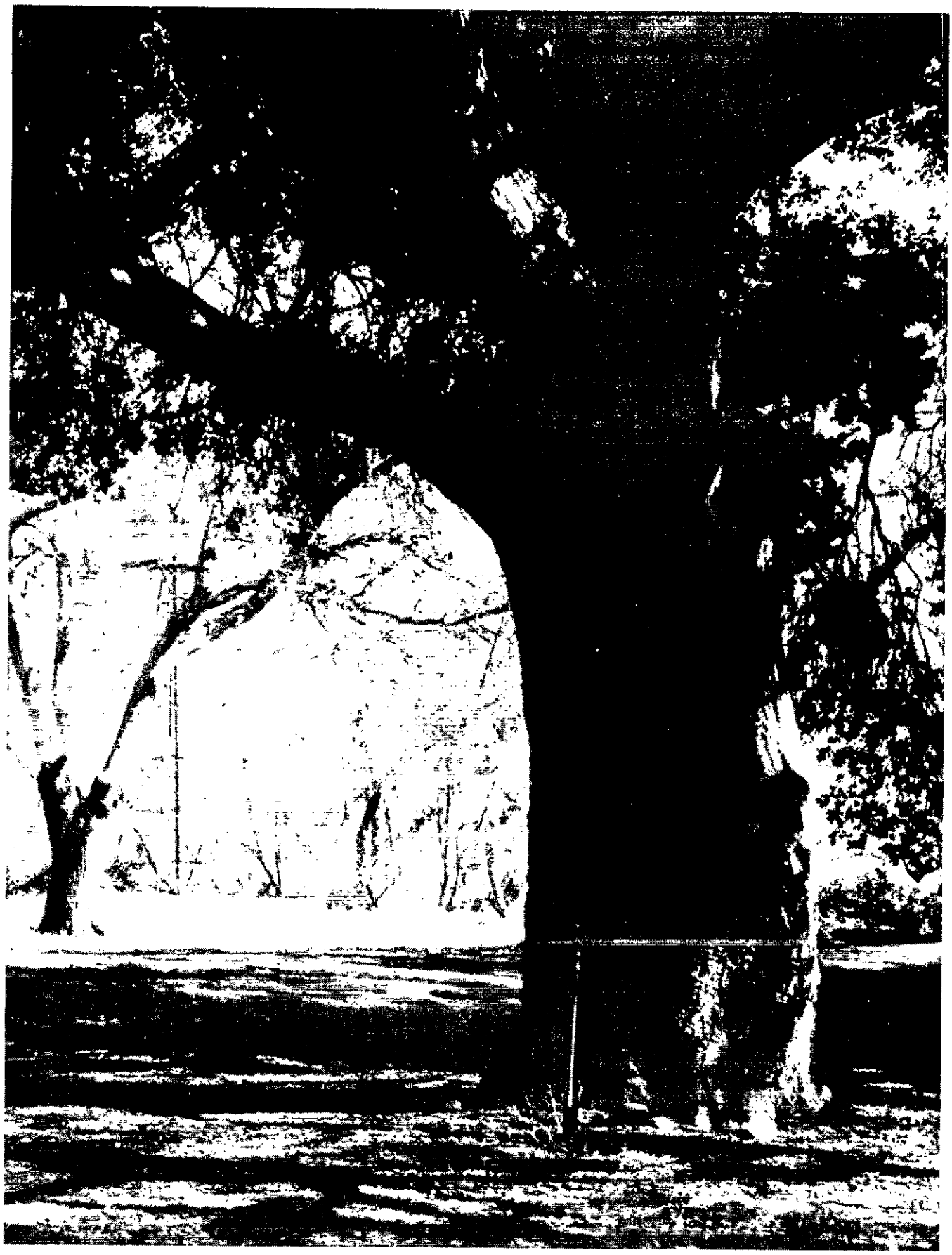
Jesse Whitton and his descendants successively ranched and farmed the property. The ranch produced hay, grain, tomatoes, cattle, vegetables, garlic, beans, berries, and fruits.

During the Depression, Howard Harris discovered magnesium on the Upper Ranch and in 1941 he sold 230 acres to Kaiser Aluminum. This sale financed the acquisition of an additional 2,400 acres part of the old Rancho Cienega del Gabilan. It is this acreage that constitutes most of the Lower Ranch, a large part of Hollister Hills State Vehicular Recreation Area.

Off-road vehicles first came to Hollister Hills in 1947 when the "Bird Creek Hunting Club" used jeeps, motorcycles, and tote-goats to control trespassing. In July 1948, the infamous motorcycle takeover of the city of Hollister occurred during "Gypsy Tour Weekend." Rioting occurred for two days and one night. The local police were unable to control the situation and the highway patrol was brought in to restore order.

With this memory kept further alive by the movie based on the incident, called "The Wild Ones" and starring Marlon Brando, Hollister citizens were wary when Howard Harris opened his ranch to motorcycling groups in 1956. When the first major motorcycle event was held in 1958, Mr. Harris encountered opposition from local law agencies. However, when representatives of these law agencies visited the site, they were pleased with what they saw and began to encourage motorcyclists to use this ranch instead of illegally riding on other private property.

In 1970, Howard Harris opened the Hollister Hills Motorcycle Playground to the general public. Harris used his academic training in geology to control erosion and to conduct geology and nature walks on the property. In 1975, the state of California purchased the property with Off-Highway Vehicle funds made possible through the Chappie-Z'berg bill. Hollister Hills State Vehicular Recreation Area became an operative unit of the State Park System on October 1, 1975.



RESOURCE MANAGEMENT PLAN

RESOURCE MANAGEMENT PLAN

Introduction

The Hollister Hills area has been classified a State Vehicular Recreation Area by the State Park and Recreation Commission, under authorization of Section 5001.5 of the Public Resources Code. This classification was given for the following reasons:

1. The combination of topography, soils, and the average amount of rainfall make the area feasible for off-road vehicles.

2. The area has previously been used for this purpose successfully and roads, trails, tracks and hillclimbs, and some debris catchment basins have already been developed on the property.

3. Off-road vehicle use has been accepted by the neighbors and people of the community.

4. Off-Road Vehicle Fund moneys were used to purchase the property. The department has been given the responsibility of providing, operating, and managing such units.

5. The area is well located to service a large number of people from the metropolitan areas of the Bay Area and central California.

Use of Resources

The main use of the area will be oriented toward satisfying the needs of off-road vehicle enthusiasts. Our objective is to operate and maintain the unit, using good land use management procedures to protect the resources, so that this off-road vehicle use may be perpetuated.

Use activities will be encouraged in areas that have the least tendency to erode. Runs, tracks, and other attractions desired by off-road vehicle users will be developed in locations where erosion can be held to a minimum and where the debris from any unavoidable erosion can be contained within the boundaries of the project.

Uses other than for off-road vehicles should be encouraged if they do not detract from the off-road vehicle use potential.

Management Philosophies

The area will be managed so that disagreeable aspects of the activities occurring here will have as little impact as possible on neighboring properties. Mitigation measures will be taken to control all types of erosion, pollution, vegetation changes, scenic degradation, and noise.

Portions of the area that have high resource or scenic values will be preserved and will be reserved for compatible uses. A good example is the area of Azalea Canyon where off-road vehicle use is excluded due to deed restrictions. This portion of the canyon will be set aside as a natural area in which only foot travel will be permitted.

Rules and regulations governing off-road vehicle use at the unit will be based on California Vehicle Code and Public Resources Code requirements, safety considerations, and good land management and environmental practices that will prevent unacceptable degradation of the area. It is recognized that off-road vehicle use is potentially harmful to both soils and vegetation. One of our primary objectives will be to keep such degradation to a minimum so that the area will remain usable. Any type of off-road vehicle activity that appears to accelerate damage to the environment will be examined and reviewed, and steps will be taken to eliminate or mitigate the damage.

A continuing effort will be made through public relations and interpretive programs to achieve acceptance of a program for the protection of the environment and the safety of the users.

Resource Evaluation

Vegetation

The Hollister Hills SVRA is located within the Sierra Foothill and Low Coastal Mountains Landscape Province as described by Herbert L. Masin in The Scenic, Scientific and Educational Values of the Natural Landscape of California, published by the Department of Parks and Recreation in 1970. The area is in the low coastal mountains area in the mid-western portion of this landscape province. The unit consists of 1,353 hectares (3,347 acres).

The chaparral, oak woodland, and valley grassland are the major ecological types found here; the chaparral occurs most abundantly, the grassland least. A small strip of riparian vegetation is found along the water courses.

There have been a number of changes in the vegetation since pristine times. On some of the lower portions of the area, which formerly supported riparian growth and oak trees, the land has been developed for agriculture and planted to walnut orchards and vineyards.

The amount of acreage supporting annual plants in the grassland-oak woodland, and to a minor degree in the chaparral, has been increased since livestock grazing has been a principal use of the land. Brush and trees have been reduced in these areas, and more space has become available for grass and forbs. The species of plants comprising the annuals have undergone a major change, with introduced Mediterranean plants replacing most of the natives.

The chaparral areas have experienced the least change since pristine times, and most of the brush zones are still supporting the original cover. Places where roads, firebreaks, and other modifications have been made show the greatest encroachment on this vegetative type.

When erosion has resulted in loss of the topsoil, the remaining chaparral cover tends to be very sparse, with only the most hardy varieties surviving. Without the topsoil in these areas, it is very doubtful if revegetation will be possible, and stabilization will be the major effort.

On the Upper Ranch property, quarrying for limestone and dolomite has opened up some of the land and has exposed the underlying materials. The ecotones, edge areas where different vegetative types meet or overlap, are the most productive wildlife areas. The roads and trails through the area probably increase this edge effect to a certain degree.

Hollister Hills SVRA has a significant amount of annual vegetation. The carrying capacity for wildlife will vary greatly from year to year, depending largely on rainfall patterns. Certain species of vegetation are favored by the timing and amounts of rainfall received, and as these species are major food plants, well-timed, heavy rains can increase the carrying capacity of the range immensely. Conversely, unfavorable rainfall patterns can drastically reduce the carrying capacity. At the present time both quail and deer populations seem to be quite high.

Although there is a certain amount of direct competition between livestock and deer, the elimination of livestock from Hollister Hills probably has not increased the range's carrying capacity for deer. The cropping of plants by livestock quite often makes the plants more palatable to deer. Without this cropping by livestock, some plants remain untouched. There is also a considerable difference in food preferences, food habits, and feeding areas between deer and livestock. The greatest competition between deer and livestock occurs when the range is overstocked with livestock or deer or both.

Soils

As mentioned in the Resource Inventory, the soils westerly of the San Andreas Fault are primarily derived from granitic parent material while those easterly of the fault are sedimentary material.

Because the sedimentary soils contain clay that acts as a binder, they tend to hold together much better than the granitic soils of an equal slope. As a result, the vehicular trails in the granitic soils must be held to a lower percent grade, and steep hillclimbs should be avoided west of the fault.

In wet weather the sedimentary soils usually go through certain changes. If the soils are very dry to start with, there will be numerous cracks throughout the soil resulting from the shrinking process that occurred when it dried out. The first rains will be absorbed and the soils will expand and the cracks will disappear. When the soils are moist but not wet, they compact and become quite firm and give good traction. When more moisture is added, the soils become wet and sticky and the top surface will start to coat the tires of a motorcycle. At first the knobby tread of a motorcycle goes through to the drier inner surface; but later, when the tread is filled with mud, the traction is reduced and slipping and sliding occur. When still more water is added, the soils become gooey and will no longer support a motorcycle on the surface. The amount of bogging down will be dependent on the depth of wetness. Mud will ball up on the wheel and other parts of the motorcycle, the machine will bog down in the mud, and riding will cease. When over an inch of rain falls in a relatively small period of time, these successive stages can be expected to take place in the sedimentary soils. If a large amount of rainfall occurs in a short period of time, it will be prudent to close the sedimentary soil areas before damage to the soils take place. This is partially self-regulating since most riders avoid these conditions.

The granitic soils tend to be well drained. In fact, there is a tendency for the water to run off very rapidly and, in so doing, to cause a great deal of erosion. If there are fine soils present, they do become slippery when they get wet; but the coarser, sandy soils are well drained. Although these soils drain quickly, the traction is better when they are wet than when they are dry. Because of the sand content, these areas do not tend to get muddy. However, rains do cause a good deal of erosion and the trails tend to rut easily and may get erosion gullies that are deep enough to make riding dangerous. The erosion gullies increase in size during a rainstorm. The trails get progressively worse as a result of mechanical erosion of motorcycle use. Long after the sedimentary soils are unusable during a rainstorm, the granitic soils are still rideable. For this reason, having soils derived from both sedimentary and granitic parent materials gives this area an advantage over others that might have only one source.

Declaration of Purpose

The prime resource of Hollister Hills State Vehicular Recreation Area is the recreational capacity of the hilly land with its varying steepness, types of soils, and types of groundcover. This area was specifically purchased for off-road vehicle use with funds designated for that purpose. The area has been successfully used for off-road vehicles prior to the time the state purchased the land, and there is a network of trails, roads, tracks, and hillclimbs throughout the property that facilitates this use. The purpose of this area is to provide a suitable and attractive place to operate off-road vehicles.

The objectives for protection will be to keep erosional debris within the boundaries of the area; to keep erosion to a minimum through proper drainage; to restrict use where accelerated erosion would occur; to continually rehabilitate, revegetate, restore, or stabilize areas where erosion has occurred; to promote and encourage developments that are desired by off-road vehicle riders that have the least damaging effect on the environment; and to keep the area scenically attractive.

The objectives of interpretation will be primarily oriented to OHVs, with public participation encouraged. Such subjects as off-road vehicle safety, driving techniques, and first aid have been suggested. An understanding of erosion problems and the differences of soils and their erodibility is also needed. The San Andreas Fault, which is a major feature of the area, will also be a primary interpretive subject, interesting to many of the visitors. Most natural, historical, and archeological features are considered to be secondary, and must be interpreted in proper perspective with the vehicle uses.

The management and public use of the prime resources will be done in such a manner as to satisfy the needs of off-road vehicle enthusiasts, consistent with the protection objectives that must be achieved if the area is to continue to meet its vehicular use objectives.

Other resources, including both cultural and recreational, that are deemed interesting, unique, or important will be protected and preserved for visitors to enjoy. These resources will be featured as prime attractions only in relation to OHV uses.

Declaration of Resource Management Policy

The objective of resource management at Hollister Hills State Vehicular Recreation Area is to give the maximum amount of protection to the prime resources consistent with the use of the area for off-road vehicles. Through careful management, we hope to maintain the quality of the resources for this use. The policies presented here were formulated to achieve this goal.

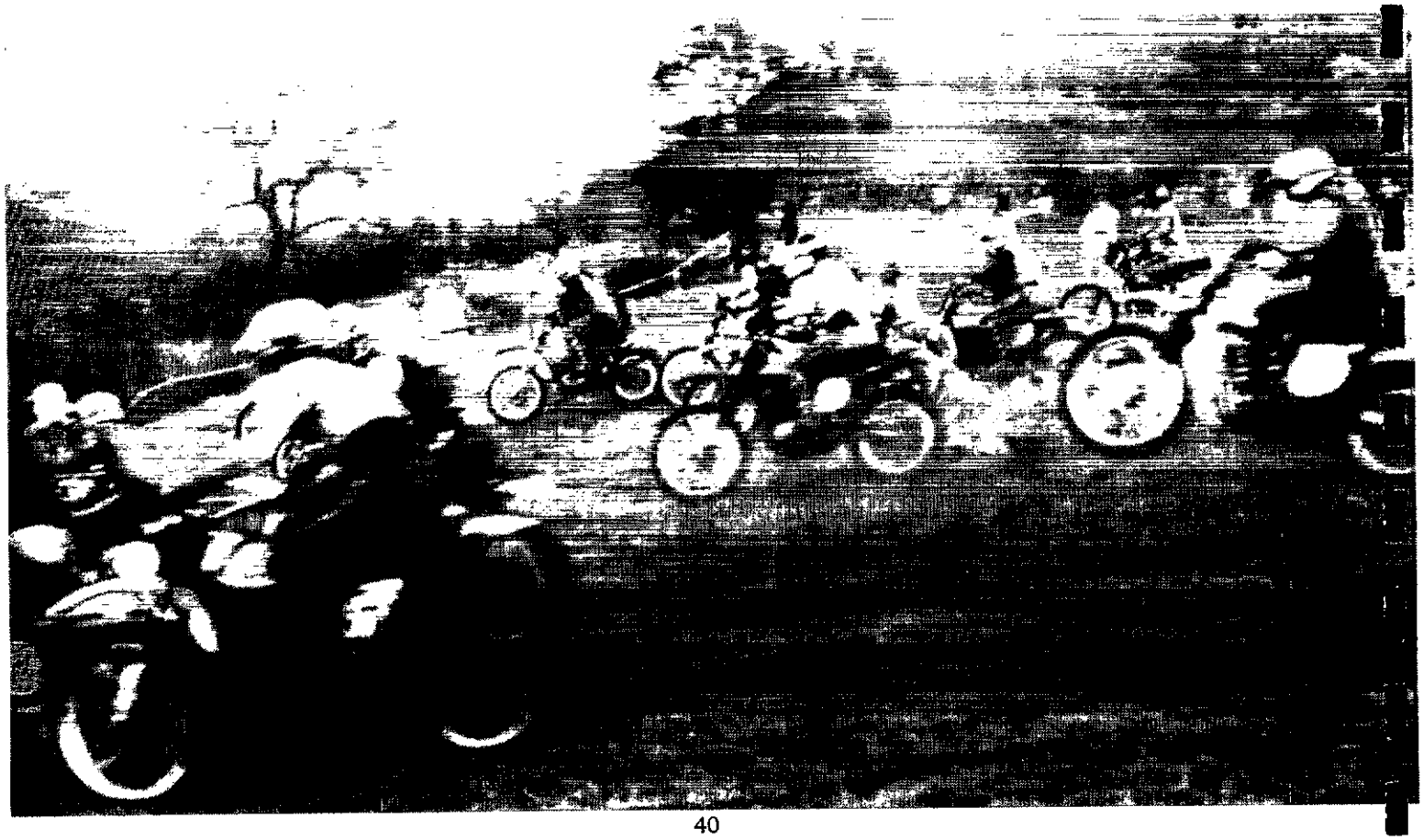
Management of Recreational Resources

Off-Road Vehicle Use

1. Off-road vehicle use will be restricted to established trails or to designated areas. These roads and trails will be restricted to the appropriate type of vehicle(s) that is consistent with their development and the resources of that particular area.

2. Edaphic considerations will be very important in determining new developments and the continued use of existing developments. The gradient of any new trail or road will be limited by the erosional potential of the particular soil present and by the degree good drainage techniques can prevent undue erosion. Existing trails that are too steep for the soils and are causing erosion problems will be modified or closed.

3. Off-road vehicle use of firebreaks or fuelbreaks will be allowed only if these breaks meet the standards of other roads and trails of the unit.



4. Off-road vehicle use that encourages spectators should be located away from exterior public roads that are near the perimeter of the property. This is a safety measure to prevent passing motorists from slowing or stopping on a public thoroughfare and thereby creating a traffic hazard.

5. The Upper Ranch area will be available for 4-wheel-drive and motorcycle groups by reservation only.

6. The Lower Ranch area will be managed for motorcycle use only because it contains only narrow trails specifically developed for this use.

7. Roads and trails will be groomed and maintained. Soil erosion will be kept at a minimum by grading and proper drainage control.

8. The run-off from roads and trails will not be allowed to accumulate and become erosive. This can be done by slightly sloping the roads and trails to the outside (where it will not endanger the safety of the riders), establishing water bars, and avoiding ditches on the inside of the road wherever possible and practical. This practice will help alleviate soil losses from roads and trails and tend to correct the "plastering" of adjacent areas.

Other Recreational Use

1. Non-vehicular uses, such as hiking, picnicking, and camping, will be located in attractive areas where participants will be safe from vehicular use activities.

2. Family camping will be permitted at the Lower Ranch area.

3. A portion of Azalea Canyon will be set aside as a natural area. Hiking trails will be developed here for the enjoyment of visitors, but vehicular traffic will be restricted to emergency and maintenance use.

4. Appropriate interpretive programs will be developed.

Allowable Use Intensity

1. Weather conditions are expected to affect the numbers of visitors the unit can accommodate. If adverse weather accelerates erosion in certain areas, use in these areas may be restricted, which would lead to a corresponding reduction in the total number of visitors allowed in the unit. Some of such reduction is expected to be self-regulating because off-road vehicle users generally avoid such adverse conditions.

2. Special events, such as sanctioned meets, will draw an increased number of participants and spectators. This itensified use of the area will be monitored to ensure that overuse does not occur.

Soils

Erosion control is a major concern of the department in formulating the management policies for this unit. In order that the unit may continue to be used for its designated purpose, we will make every effort to minimize erosion and to mitigate the effects of any unavoidable damage to the soil.

1. Erosion problems should be corrected while they are still minor; to accomplish this, ample funds should be budgeted each year for a sound maintenance program.

2. When it becomes apparent that any type of use is resulting in uncontrollable soil erosion, that use will be restricted or stopped until the problem can be mitigated.

3. Areas requiring restoration will be rehabilitated through sound soil conservation techniques, including rotation and rest.

4. Measures will be taken to control the numerous drainages (see surface hydrology map) of the unit to ensure that debris originating in them is not permitted to leave the project boundaries. This will be done by constructing debris catchment basins along the drainages as well as by preventing as much erosion as possible with the practice of the best soil conservation procedures. Water released from these basins will be diffused to reduce the erosion of areas downstream from the basins. Areas within the watershed may be closed if that is necessary to reduce erosion to an acceptable level.

5. Existing erosion problems resulting from past developments or vehicle use that have seriously damaged or destroyed the soil will be closely monitored. Steps will be taken to rehabilitate such badly eroded areas and restore them to a stable and/or usable condition. If restoration is impossible, these areas will be stabilized as well as possible to prevent future degradation.

6. Roads, scars, trails, firebreaks, and other man-made intrusions that are no longer used for off-road vehicles, maintenance purposes, or other visitor uses will be restored, revegetated, or stabilized to help alleviate erosion generating from these open areas. The method used will depend on each individual situation.

Vegetation and Wildlife

1. It will be the policy of the department to encourage and protect plant life on all lands not specifically used for off-road vehicle use. Animal populations will be encouraged, but specific programs to improve the habitat in order to increase wildlife populations will not be undertaken except as by-products of some other management programs.

2. Prescribed burning techniques may be employed to achieve ecological stability on chaparral, forested, and grassland areas. This will be done only in accordance with plans approved by the Resource Preservation and Interpretation Division.

3. Agricultural assets, such as the walnut orchard, will be managed in accordance with the Resource Management Plan until such time as the Resource Preservation and Interpretation Division determines that it is no longer feasible or prudent to continue maintenance.

Scenic Values

Scenic vistas that add to the enjoyment of off-road vehicle riders should be maintained. Before new trails or roads are developed, their effect on scenic vistas will be ascertained.

Lower Azalea Canyon Natural Area

All of the Azalea Canyon area within the boundaries of the unit except that portion north of the canyon bottom above the Hidden Springs Road will be set aside as a natural area. This area has deed restrictions limiting its use; therefore, it will be kept in a completely natural condition except for foot trails and existing maintenance roads.

Geological Values

1. Outstanding geological and paleontological features, including those associated with the San Andreas Fault, will be preserved and interpreted. Developments will be tailored to the ability of the terrain to withstand the expected use without suffering undue adverse environmental effects.

2. Water and sanitary facilities will be developed in such a manner that the frequent earthquakes and earth movements experienced in the area will not result in broken lines that could cause pollution and erosion.

Management of Cultural Resources

Cultural resources will be used to enhance the visitor's enjoyment of the unit.

1. All prehistoric and historic sites and artifacts in this unit will be preserved and protected from off-road vehicle use, from developments, or from deterioration by any human or natural agency while the unit is a part of the State Park System. Where protection is impossible, mitigative measures will be taken.

2. The schoolhouse and barn on the Upper Ranch are to be carefully preserved and eventually restored in accordance with interpretive plans that will be formulated.

Policies for the Public's Health, Safety, and Welfare

Anti-Pollution Measures

1. Water pollution will be controlled through the use of debris dams and settling ponds so that water released downstream will not be polluted. Erosional debris will not be allowed to leave the property.

2. Air pollution will be controlled through the checking of vehicle exhaust emissions, watering to control dust, and control of use. Watering should be done only in camp, picnic, track, or concession areas, or in other places in which the watering will aid in compacting dusty soils, not where it will aggravate soil damage.

Fire Control Measures

1. It will be an important objective to keep wildfires out of the area. Fire prevention and control programs will be initiated to protect the environment.

2. Firebreaks and fuelbreaks will be constructed and maintained according to the Wildland Fuel Management Guidelines of the Department of Parks and Recreation. Breaks already constructed will be modified to meet these standards; and conservation practices will be followed to rehabilitate, restore, or stabilize any places where erosion is causing deterioration.

Volunteer Work Program

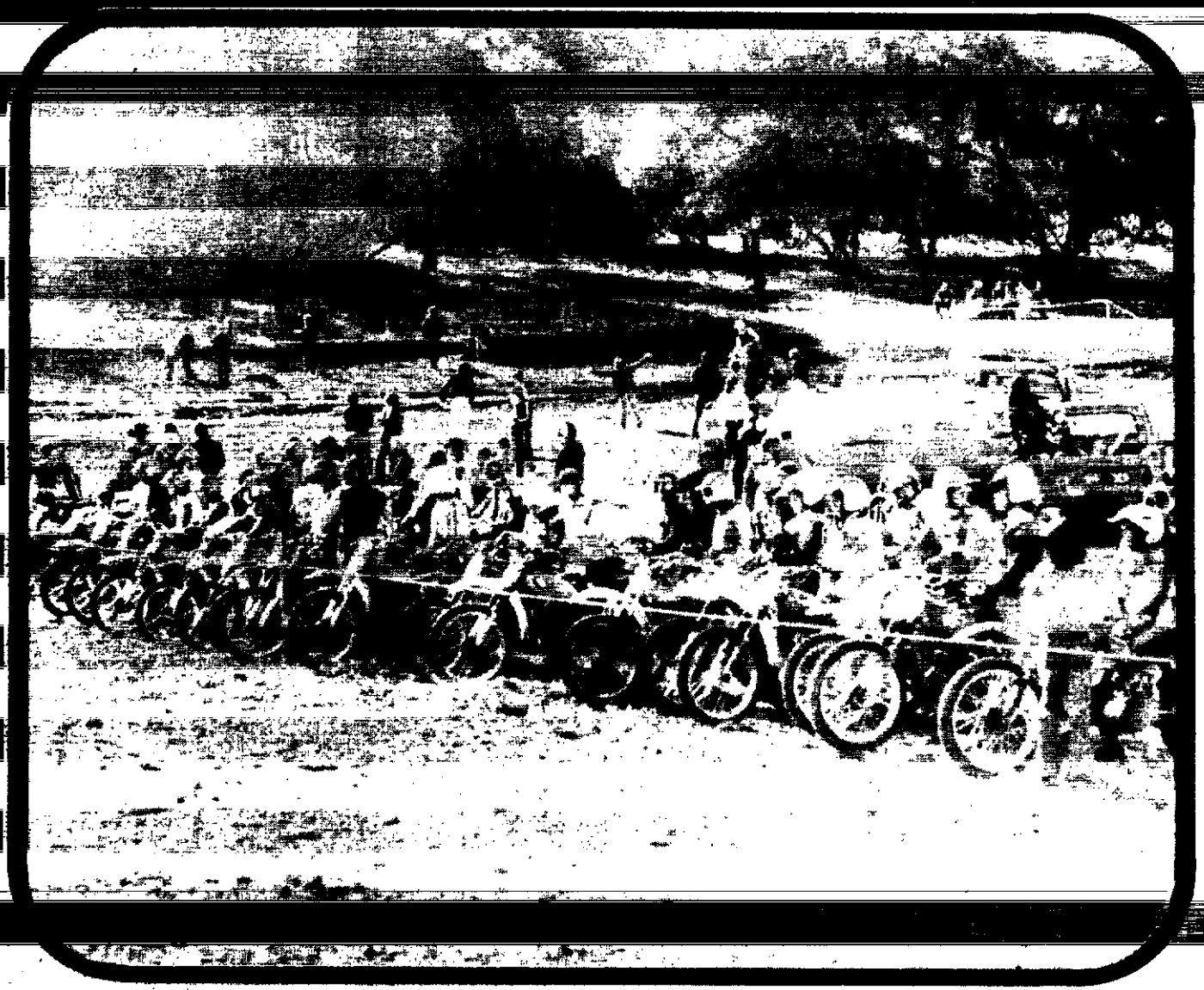
A volunteer work program to improve the area and operation will be supported and monitored by the department.

Interpretive Program Policy

Off-road vehicle enthusiasts have emphatically expressed at public meetings their opinion that the main interpretive effort should be directed toward off-road vehicles and associated subjects, including the effects of off-road vehicle use on the environment. The main interpretive effort will take this direction. A lower priority will be given to the interpretation of cultural and natural values, but among the latter, geology will be stressed.

ALL INTERPRETATION, DEVELOPMENT, AND OPERATION OF THE UNIT WILL BE IN CONFORMITY WITH THE DEPARTMENT OF PARKS AND RECREATION RESOURCE MANAGEMENT DIRECTIVES.

GENERAL DEVELOPMENT PLAN



GENERAL DEVELOPMENT PLAN

Introduction

The General Development Plan may be described as a comprehensive, long-range, master plan for the development of recreational facilities at Hollister Hills State Vehicular Recreation Area. Recreational development proposed in the plan includes additional camping and picnicking facilities, tracks and trails, an interpretive program, the restoration and use of the existing Vineyard School, and use of the concession building.

The plan was derived from the study and analysis of the material presented in the previous chapters contained in this report. The plan delineates general routes and appropriate land areas for such elements 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 realized through a logical sequence of phased development.

It should be noted that numbers of facilities (e.g., 75 picnic units) appearing in the following text should be regarded only as an estimate of development potential and need.

It is imperative that public use patterns at Hollister Hills be frequently reassessed to determine the current and most appropriate levels and types of development.

Existing Land Use

Lower Ranch

A major portion (2,150 acres) of the existing land at the Lower Ranch is devoted exclusively to off-road motorcycle riding on designated trails, tracks, and hillclimbs. The San Andreas Geophysical Observatory (SAGO), housing the sophisticated earthquake monitoring equipment, occupies a 5-acre inholding. Twenty-five acres of deed-restricted land surrounds SAGO and is a part of the Azaela Canyon natural area. The natural area, ±300 acres in extent, is off limits to motorcycle use; however, hikers can enjoy the self-guided nature trail constructed along Bird Creek. A staging and overnight use area, comprising ±30 acres, parallels Bird Creek. The maintenance yard, office and kiosk, along with the residences, comprise the 5-acre administrative area.

Upper Ranch

The Upper Ranch has been operating for a number of years on a reservation basis for motorcycle competitive club events. By an agreement reached at the user representative meeting on Feb. 5, 1977, the 867-acre Upper Ranch is now used by both motorcyclists and drivers of four-wheeled vehicles (in groups) on alternating weekends. (Reservations are still required.)

Proposed Land Use

Lower Ranch

The existing land use on the Lower Ranch, which permits motorcycle recreation as the major activity, shall remain. However, as some trails become deeply eroded, they shall be closed for rehabilitation. The existing SAGO installation and the Azalea Canyon area shall remain a natural area, protected from all vehicular traffic except official emergency vehicles. The +20-acre walnut orchard located near the unit entrace forms a buffer zone that should be maintained as such. In keeping with this use, only passive day-use activities, such as picnicking, will be permitted in this orchard. (See Proposed Land Use Map, p. 49.)

Upper Ranch

The existing land use, which permits groups of motorcyclists and drivers of four-wheeled vehicles to use the Upper Ranch on alternate weekends by reservation, will continue.

There is, however, a 20-acre inholding in the large meadow area that is the site for a future cement plant. The state did not acquire the mineral rights to the Upper Ranch, and approval has now been granted by San Benito County to the Granite Rock Co. for the exploration and processing of minerals in this area.

Any activity related to the possible extraction or processing of minerals will have an effect on the amount of land available for off-highway vehicle recreation on the Upper Ranch. Every effort should be made to maximize off-highway vehicle recreation while the minerals are being extracted. Reclamation plans for the land should consider the unique opportunity for developing off-highway vehicle facilities here in the future.

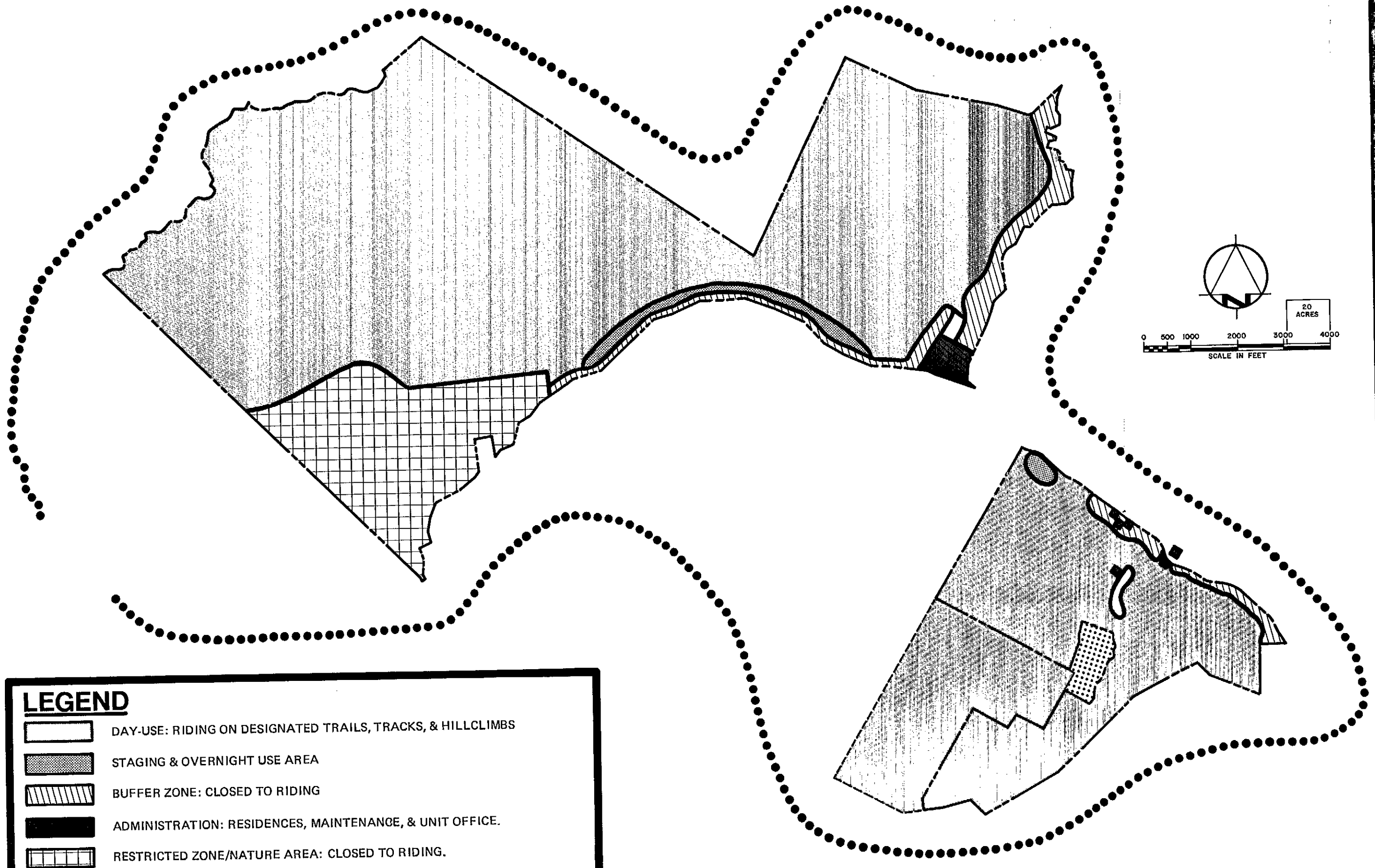
Carrying Capacity

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 recreation experience.

Because of the diversified nature of OHV recreation, carrying capacity at Hollister Hills cannot be easily determined.

The sport of off-road vehicle recreation is quite complex and varied. Different models of vehicles are made for different types of use. Therefore, carrying capacity per se would differ greatly among each form.

Hillclimbs which require quite steep topography are subject to more detrimental environmental impacts than tracks which are laid out on flat surfaces. Spectators watching riders create less impact than riders, but spectators of large competitive events such as hillclimbs, motocross, and scrambles appear to have a significant impact upon the land.



LEGEND

- DAY-USE: RIDING ON DESIGNATED TRAILS, TRACKS, & HILLCLIMBS
- STAGING & OVERNIGHT USE AREA
- BUFFER ZONE: CLOSED TO RIDING
- ADMINISTRATION: RESIDENCES, MAINTENANCE, & UNIT OFFICE.
- RESTRICTED ZONE/NATURE AREA: CLOSED TO RIDING.
- DAY-USE AREA-PICNIC
- PROPOSED MINERAL PLANT

FIGURE 15

PROPOSED LAND USE

DESIGNED | DRAWN | CHECKED

REVISIONS | DATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION
APPROVED _____ DATE _____

HOLLISTER HILLS
STATE VEHICULAR RECREATION AREA
PROPOSED LAND USE

DRAWING No.

SHEET No.
OF

Considering these factors and others, such as past attendance records and operational experience, maximum carrying capacities at both ranches have been determined.

At the Lower Ranch, a maximum of 600 riders and 300 non-riders can be accommodated at any one time. The factors that determined these figures were: (1) past attendance records; (2) the potential for accidents; and (3) the limited number of tracks and trails. The potential for accidents increases with an increase in numbers of riders as most people ride near the area where they park their tow vehicles and around the tracks. Backcountry trails are not as extensively used. Because of the steep topography and difficulty of access, an even distribution of the riders is unlikely. Therefore, the carrying capacities have been established for the entire area of each ranch.

At the Upper Ranch, where events are organized and sponsored by private promoters and clubs, the maximum attendance at one motocross event was 450 riders and 650 spectators. The operations staff feels this number could easily double. The former owner claims that he held five events on a single day without any problems. Therefore, a maximum capacity of 900 motorcycle riders and 1,400 spectators or 325 drivers of four-wheeled vehicles and 1,400 spectators has been established for the Upper Ranch.

It should be realized that the figures are for a large area. Many times a single acre or a few acres will have far more persons than the ideal carrying capacity; however, the carrying capacity for the entire area should not be exceeded.

It also must be realized that the established carrying capacity is based on the best information available to date. In the future, as more information becomes available and/or management techniques change, these figures should be adjusted.

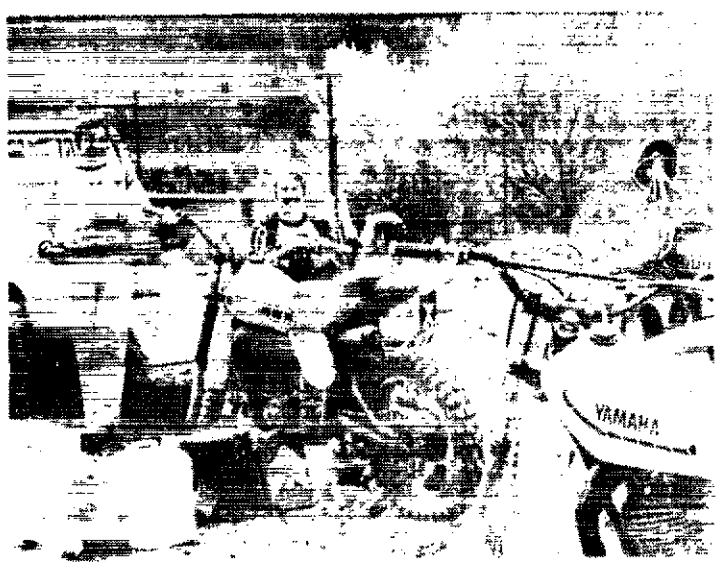
Existing Facilities

The primary intended use of this state park system unit is off-highway vehicle recreation, which requires very few facilities. The necessary operational facilities have been constructed by the department under an interim facilities plan. User facilities have been limited to necessary sanitation and public safety improvements.

Lower Ranch

Trails, tracks, and hillclimbs for motorcycle recreation. There are about 85 miles of one-way trails for motorcycling. These "trails," of varying degrees of difficulty, were constructed prior to state acquisition. Trails are designed and signed for one-way travel to prevent head-on collisions. In addition to the trail system, there are racetracks and hillclimb areas that satisfy the needs of motorcycle recreationists from beginner to expert. There are 2 tracks and 7 hillclimbs. (See Existing Features Map, p. 9.)

Camping, Picnicking, and Staging Areas. Four existing campgrounds, Walnut Camp, Bee Camp, Lodge Camp, and Madrone Camp, are located along Bird Creek. There are at present a total of 200 informal primitive campsites with pit toilets, some potable water, and a few tables. These campsites, developed by

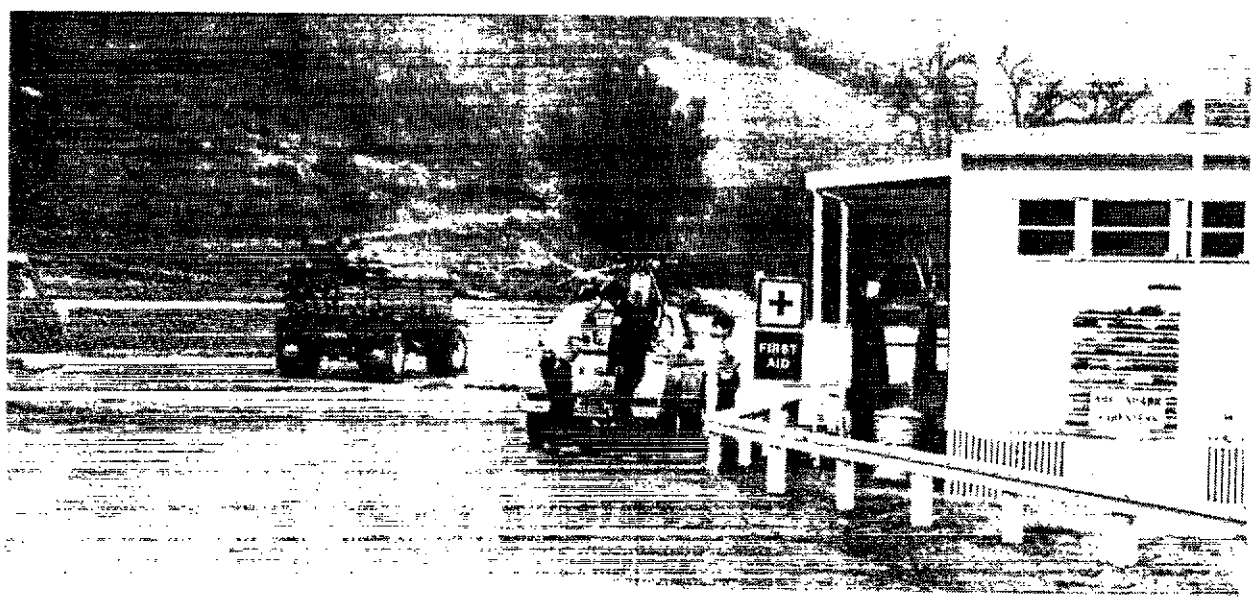


the former owner, are also used for day use, for picnicking, and as staging areas to load and unload motorcycles. Many of the non-riding family members as well as the general public use these areas along Bird Creek.

Parking. In addition to parking their tow vehicles in the campgrounds, motorcyclists currently use several nondesignated parking areas adjacent to the main access road. There are also about 12 parking spaces at the entrance station for employees and emergency vehicles. (See Existing Features Map, p. 9.)

Hiking Trail. As has been noted (see p. 48), the upper portion of the Bird Creek area has been declared off limits to motorcycle use because of deed restrictions. This restricted area contains generally good flora and fauna in a relatively undisturbed state. A nature trail in Azalea Canyon, established by the California Youth Conservation Corps in the summer of 1976, offers an enjoyable hiking and nature walk experience.

Administrative Facilities. A trailer unit, located adjacent to the unit entrance kiosk, houses the unit office.



A maintenance yard adjacent to the unit entrance, consists of a recently constructed maintenance building (2,080 sq. ft.) and a vehicle storage building (2,500 sq. ft.). The latter houses tractors, a fire truck, and other heavy equipment. The yard is enclosed by a chain link fence.

There are three trailer residences spaced approximately 1/8 mile apart along Cienega Road at the Lower Ranch. These trailers, recently purchased by the department, house unit personnel and their families.

Concessions Building. A building at Lodge Camp houses a minimum service concession.

Upper Ranch

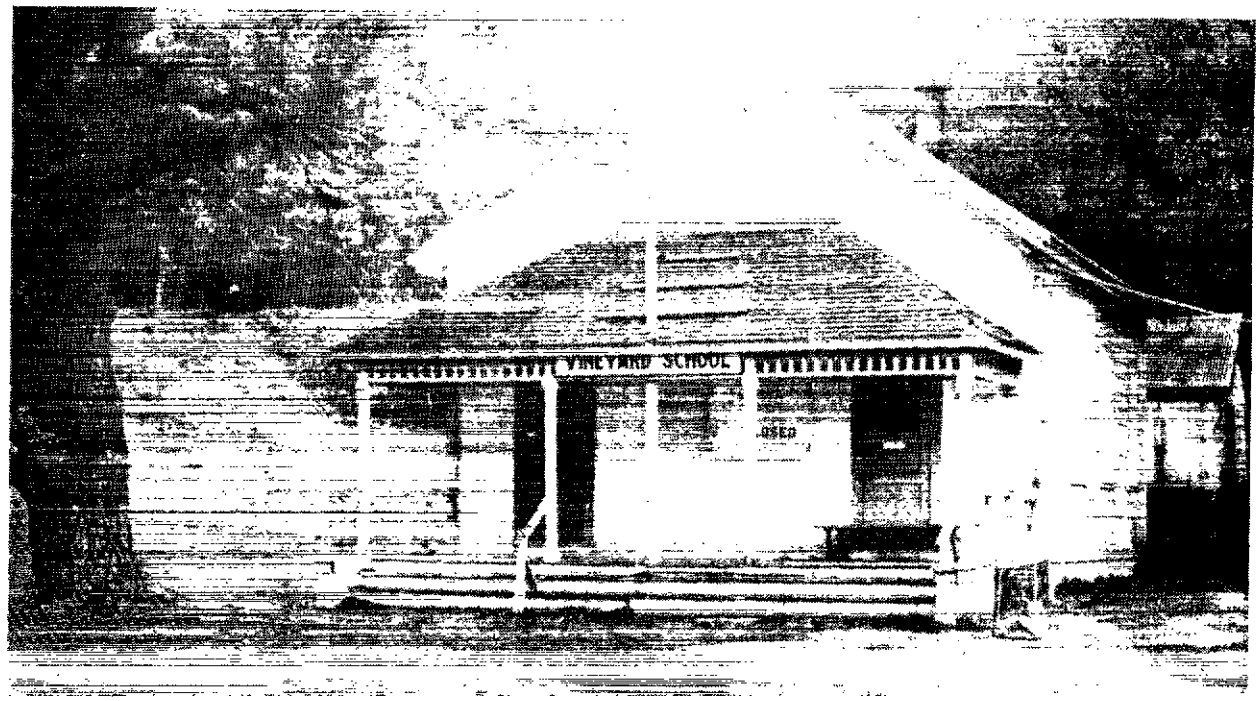
Trails, Tracks, and Hillclimbs. There are approximately 50 miles of trails on the Upper Ranch. In addition, there are 2 tracks, a mini-motocross track at Garner Lake (a dry lake) and a motocross track at the Competition Hill Area.

Camping, Picnicking, and Staging Areas. The Garner Lake Campground contains primitive informal campsites that will accommodate approximately 25 persons. Because the Upper Ranch is used only by groups who have made reservations, this area has only 5 tables, 5 stoves, potable water, and chemical toilets. The entire Upper Ranch is used informally for staging and picnicking. Sycamore Springs is a designated day use area.

Parking. There are many excellent parking areas on the Upper Ranch; however, they are not clearly designated at this time. A few vehicles can be parked in front of the Vineyard School. Many cars are being parked at random throughout the Upper Ranch on flat grassy areas during competitive events.

Residences and Miscellaneous Structures. Two trailers and an existing farmhouse, located in a cluster adjacent to Cienega Road, are used at present as residences for unit personnel. A third residential trailer is located adjacent to the Vineyard School.

There is a barn near the first group of residences that is used to store hay for the rehabilitation of trails and occasionally to store lumber.



A residence, which appears to be in need of major structural repair, stands north of Sycamore Springs, a major day use area.

Vineyard School. The existing one-room Vineyard School was established about 1890. The picturesque school building is adjacent to Cienega Road and recalls the former rural life of the area. When the Vineyard School closed in the 1950s, it still had two pupils in attendance.

Existing Utilities

Electricity. Both ranches are served by PG&E overhead electrical lines that parallel Cienega Road and Bird Creek Road.

Gas. All the gas used at the unit comes from propane tanks.

Telephone. Pacific Telephone has line service along Cienega Road that services both ranches. There is a public telephone booth at Lodge Camp at Lower Ranch.

In addition to the normal telephone service, the SAGO installation has approximately twenty telephone lines that transport the seismic instrument recordings to a Berkeley station.

Sewage. Existing sewage is a combination of leach fields, pit toilets, and pump-out chemical toilets. The residences and major structures are serviced by septic tanks and leach fields. Use areas on the Lower Ranch are serviced by pit toilets; the Upper Ranch has chemical toilets which require periodic cleanout and recharge by a commercial sewage pumper.

Water. A combination of wells, springs, and stream diversions provide water for this unit.

Existing Problems

This unit has been operating for a number of years as a private off-road vehicle area. Present problems include: inadequate water facilities; traffic circulation problems; erosion and its related environmental effects; deteriorating conditions of some buildings; and other problems (fire hazard, noise, and accidents) created by motorcycles and other off-highway vehicles.

Water System. Improvements have been made to the unit's water system for operational purposes. However, the portions of the system that supply the visitor use areas is badly in need of repair. Some visitor areas do not have a water supply system.

Traffic Circulation. The access road to the camping and day-use staging area on the Lower Ranch is often slick during the wet season. This potentially hazardous traffic situation creates a tremendous problem for unit personnel and users.

An access problem occurs on days of popular competitive events on the Upper Ranch. Vehicles back up from the entrance at the front of the Vineyard School down Cienega Road to the residential area. Fortunately, Cienega Road is not heavily used. In addition to this backup problem, the existing road at the entrance has limited sight distance (horizontal curve) and is an unsafe entrance.

Erosion and its related environmental effects. Off-road vehicular recreation causes erosion and related effects such as siltation, denudation of vegetation, and unsightly, scarred hillsides.

Deteriorated Buildings. The Lodge Camp concessions building at the Lower Ranch and the Vineyard School at the Upper Ranch are at least 50 years old and are in need of repair.

Other Problems Created by Off-Highway Vehicles. By the very nature of the sport, motorcycle recreation creates fire, noise, and safety problems. Especially during the dry season, fire control measures must be strictly enforced with strict adherence to the requirement of legal spark arresters. Excessive noise levels must be controlled by the enforcement of required legal mufflers. Safety and accident problems are lessened by a one-way road system and traffic signs. However, when accidents resulting in injury occur, the staff must be well trained to administer necessary first aid and to deal with unforeseen emergencies.

Proposed Facilities

Hollister Hills SVRA is an operating unit with many existing facilities. Moreover, off-highway vehicle recreationists have expressed their preference that there be minimal development of facilities at the unit. Among the users themselves, most would rather see funds put into erosion control, the acquisition of additional property for riding areas, and other measures to preserve the land for this recreational use than into fancy campgrounds, picnic tables, and the like.

The proposed developments described below will provide the necessary improvements to existing facilities and new facilities which, we believe, will provide off-highway vehicle enthusiasts and their families with the recreational opportunities they are seeking.

Traffic Circulation Access. Access to the Lower Ranch will remain off Cienega Road. The location of the existing contact station allows adequate backup space to Cienega Road.

Access to the Upper Ranch will be relocated approximately 100 yards north. This will improve the sight distance and allow for additional backup space.

Roads. The existing access road on the Lower Ranch, from the entrance station to all campsites along Bird Creek, will be improved to an all-weather access road. This road is to be a gravel road with no oiling or other sealers.

On the Upper Ranch a new road will be constructed from the proposed access point to the major use areas.

Park Office. The existing unit trailer office will remain until the present trailer needs replacement. When the trailer is replaced a permanent structure should be constructed. This structure should serve as both office and entry station, thus eliminating the need for the existing check-in kiosk.

Picnic Areas. Major picnic areas should be developed on both the Upper and Lower Ranches. At the Lower Ranch the main walnut orchard will be developed to accommodate 25 picnic units with tables and fire rings. No overnight camping will be permitted here. All motor vehicle parking will be at the periphery of the picnic area. A picnic area at the Upper Ranch will be designed to accommodate groups of up to 200. This area will be located at Sycamore Springs, south of Vineyard School. Fire pits, tables, and restrooms will be developed at this location.

Campgrounds. The four informal camping areas on the Lower Ranch are to remain. The following list shows the numbers of proposed sites and improvements for each area:

Walnut Camp	40 sites; 20 picnic tables; 10 fire rings
Lodge Camp	30 sites; 15 picnic tables; 7 fire rings
Bee Camp	15 sites; 7 picnic tables, 3 fire rings
Madrone Camp	40 sites; 20 picnic tables; 10 fire rings

The Garner Lake Campground on the Upper Ranch will be designed to accommodate groups of up to 60 persons.

HARMONY GATE
EMERGENCY USE

BARNARD GATE
EMERGENCY USE

WALNUT ORCHARD
DAY USE AREA

RESIDENCES
TWO TRAILERS

POOR BRIDGE GATE

INTERPRETIVE
DISPLAY SHELTER

MAINTENANCE
BUILDING, CORP. YARD

MAIN PUBLIC ENTRANCE
GATE TO LOWER RANCH

CAMPSITE @ UPPER RANCH
GARNER LAKE CAMPSITE
5 TABLES, 5 STOVES

GARNER LAKE GATE

UPPER RESIDENCE
GATE

MAIN PUBLIC ENTRY
TO UPPER RANCH

VINEYARD SCHOOL
SOCIAL HALL

SEASONAL
HOUSING

CAMPSITES @ LOWER RANCH
- A WALNUT CAMP - 40 UNITS
- B BEE CAMP - 15 UNITS
- C LODGE CAMP - 30 UNITS
- D MADRONE CAMP - 40 UNITS

Psych Hill
Competition Hill
Twin Hills
Super Hill
Sandy
Canyon
NATURE AREA
BOUNDARY
Creek

CONCESSIONS
BUILDING

ENTRY/ADMINISTRATIVE
OFFICES

RESIDENCE
TRAILER

S.A.G.O.
SAN ANDREAS GEOLOGICAL OBSERVATORY
EARTHQUAKE MONITORING EQUIPMENT

GARNER LAKE
MINI MOTO X

AZALEA CANYON
NATURE AREA & NATURE TRAILS

RESIDENCE
OLD HOUSE

OLD BARN

OBSTACLE COURSE
FOR 4WD VEHICLES

LEASED
LAND

COMPETITION HILL
MOTO X AREA

RESIDENCES
TWO TRAILERS

SYCAMORE SPRINGS
DAY USE AREA

SAN BENITO
MONTEREY CO.

LEGEND

PARK FACILITIES
- ADMINISTRATIVE, INTERPRETIVE AND OPERATIONAL FACILITIES
- DAY USE FACILITIES
- CAMPSITES
- (25) PARKING W/ NUMBER OF SPACES

ACCESS POINTS
- EMERGENCY OR LIMITED USE GATE
- MAIN ENTRY GATE
- GATE TO AZALEA CANYON NATURE AREA

TRACKS
- TT TRACK
- MOTO X TRACK
- MINI TRACK
- HILLCLIMB
- 4WD OBSTACLE COURSE

ORCHARDS
- WALNUT ORCHARD
- OLIVE ORCHARD

ROADS & TRAILS
- VEHICLE ACCESS
- FOOT TRAFFIC ONLY

N

20 ACRES

0 500 1000 2000 3000 4000
SCALE IN FEET

DESIGNED | DRAWN | CHECKED

REVISIONS | DATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION
APPROVED Russell Cahill DATE 7/4/1978

HOLLISTER HILLS
STATE VEHICULAR RECREATION AREA
FIGURE 16
GENERAL DEVELOPMENT PLAN

DRAWING No.

SHEET No.
OF

In addition, all campgrounds will have toilets (flush where feasible), water, and trash receptacles.

Trails, Tracks, Hillclimbs, and Courses. The existing trails will be maintained. However, in the future some trails may be relocated or closed if uncontrollable erosion is occurring.

The existing tracks and hillclimbs shown on the General Development Plan are to remain. In addition, an obstacle course for four-wheeled vehicles will be developed above Garner Lake on the flats. This course will also be available for two-wheeled vehicles on alternate weekends.

Vineyard School

The schoolhouse is to be restored with historical accuracy to a safe, serviceable condition. This structure will then be available on a reservation basis for club and group meetings. The existing trailer residence adjacent to the school should be removed.

Concessions Building

The existing 50-year-old concessions building at the Lodge Camp will be repaired to a safe, serviceable condition with new interior and exterior paint and a new roof. Covered concrete patio pads would also be a desirable improvement.

Showers

Motorcycle riding does not qualify as a form of clean recreation. The installation of a shower at the Lodge Camp would be a welcome addition. These showers can be of the simple type found at beaches and swimming areas. Showers would be a welcome addition for riders (often covered with mud) who would like to stay overnight.

Lighting

Currently, light bulbs at the entrance kiosk and at Lodge Camp are lit both day and night. Since such practices are quite wasteful, these lights should be placed on photo-electric switches, as are those at Bee Camp and Madrone Camp.

Fencing

The fencing along the unit boundaries at Fremont Peak Road and Cienega Road should be replaced with hog wire. Other existing boundary fencing should remain barbed wire to keep cattle out. However, when trails are close to barbed wire fences, new hog wire or snow fencing just inside the barbed wire should be erected to protect riders. When special riding areas, such as motocross tracks, impinge upon areas for casual, off-road riders, they should be separated from each other by snow fencing for protection to the riders involved.

Earthquake Monitoring Display Shelter. A display shelter that will provide and interpret earthquake monitoring equipment will be located near the trailer

office between the maintenance building and the walnut orchard. This will allow the non-motorcycle user to view the display without interfering with the motorcycle recreationist.

Landscaping

Walks and landscaping will be designed to connect the proposed picnic area in the walnut orchard with the proposed interpretive display. In addition, the existing maintenance building will be landscaped to screen the yard from public view.

Utilities

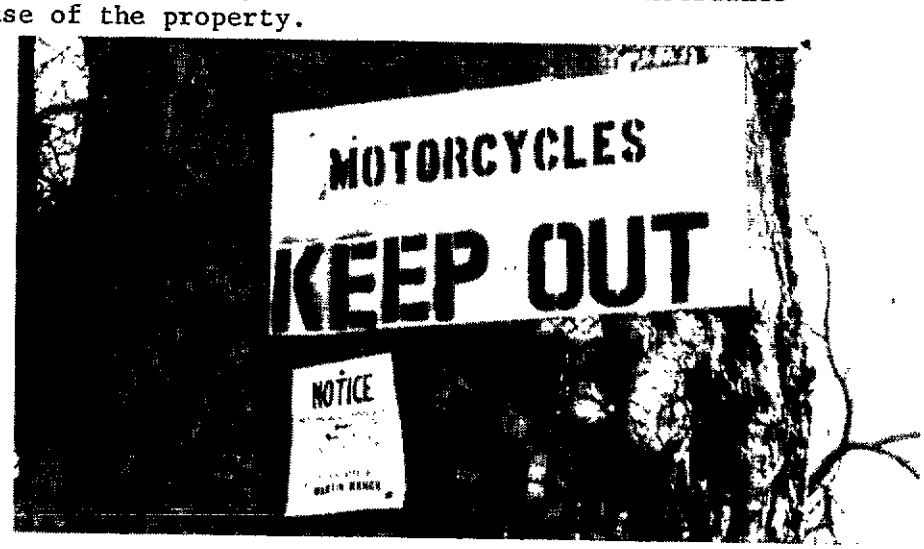
All future overhead lines will be placed underground, if feasible.

The unit's water system will be upgraded to provide a safe, serviceable system that can provide water for the picnic and camping areas and water to maintain the tracks and courses.

Acquisition

In order to unify and improve Hollister Hills SVRA, the following acquisition is recommended: Purchase of two houses on a small parcel of land across the highway from Vineyard School, and lease or purchase of the intervening property between the Upper and Lower ranches.

Two small houses on a 2-1/2-acre parcel are situated directly across from the Vineyard School. These houses are small and in poor condition. Should they remain in private ownership, they could conceivably, in the future, be occupied by individuals not sympathetic with unit goals. These structures and the surrounding land should be acquired as an addition to the state vehicular recreation area. Should the existing curved Cienega Road be realigned according to county plans, the houses would be an inholding within the recreation area. The special nature of this recreation area with its large crowds and accompanying high noise level would make a residential inholding highly undesirable. Even though Cienega Road may not be realigned, these residences, if occupied by other than unit personnel, would be a potential source of constant complaint because of the adjacent, adverse off-highway vehicle activity. These complaints may result in additional constraints being placed upon the use of the property.



The Upper and Lower ranches are separated by 1,824 acres of land in a single ownership. Under careful management, this intervening land has good potential for off-road riding with 65 miles of roads and trails on the land. The soils are granitic, similar to the upper reaches of the Lower Ranch.

Lease or acquisition of this property would join our present ownership into one larger project. This would improve access, control, and erosion control measures; eliminate possible future complaints from private owners; and add a significant parcel of land to the off-road riding program.

One suggestion is that this property be operated similarly to the Upper Ranch. Group use, it has been found, places only moderate demands on department staffing. The Upper Ranch is usually booked for group use at least one year in advance. This points to the need for additional lands for such use. Because of the conflicts caused by mineral extraction, it is also suggested this property be acquired in fee. This area is within San Benito mineral reserve area. County policy on lands within an MR (Mineral Resource) area is:

> Sec. 52.1 SPECIAL REGULATION, MR AREA. No building permit shall be issued for any use in a district which is combined with an MR area unless such application is accompanied by a certificate signed by a geologist, engineer, or other competent person stating that the kind and nature of the proposed project will not prevent the future use of said resource or make it economically impossible to extract such resource from its natural location.*

*From Zoning Ordinance No. 358, County of San Benito, California

Safety

Due to the nature of off-highway riding, accidents and mishaps are common at the Hollister Hills State Vehicular Recreation Area. According to the California Department of Parks and Recreation's "Quarterly Summary Report of Visitor Incident" reports on file at the Gabilan Mountain Area, many accidents occur on weekends. These accidents range from a victim falling off a tree to more common motorcycle-related accidents.
It has been found that a number of measures are helpful in preventing accidents or decreasing their severity. These measures include the following:

- Training an active volunteer safety patrol
- Educating staff in safety and first-aid.
- Installing and maintaining safety fencing
- Educating riders on safety through interpretive programs.

It is our recommendation that these measures be continued and expanded whenever possible.

It is also recommended that a comprehensive signing program be undertaken to mark all trails according to degree of difficulty -- beginner, intermediate, or experienced. This signing program could be similar to that found on ski slopes.

Sequence of Plan Implementation

- Develop campgrounds — Erosion Control
- Develop picnic areas
- Improve utilities
- Install safety & boundary fencing
- Develop interpretive shelter
- Maintain tracks, trails, courses
- Realign Upper Ranch entrance
- Restore schoolhouse
- Repair concessions building

- Acquire land at Vineyard School entrance — Erosion Control
- Repair existing structures for seasonal personnel housing

- After County Road Realignment — Erosion Control
- Develop Upper Ranch Entrance

After Acquisition of Intervening Property — Erosion Control

- Develop Lower Ranch Entrance
- Replace existing park office trailer, etc.

Concessions

A minimum service concession that sells motorcycle repair parts, motor oil, food, and non-alcoholic beverages has been operating on a trial basis. This concession has been very popular with the users and also has proved profitable to the concessionaire. It is recommended that this type of concession service be continued.

A feasibility study of operating the entire unit on a concession basis was also undertaken. It was found that a concession-operated unit could meet

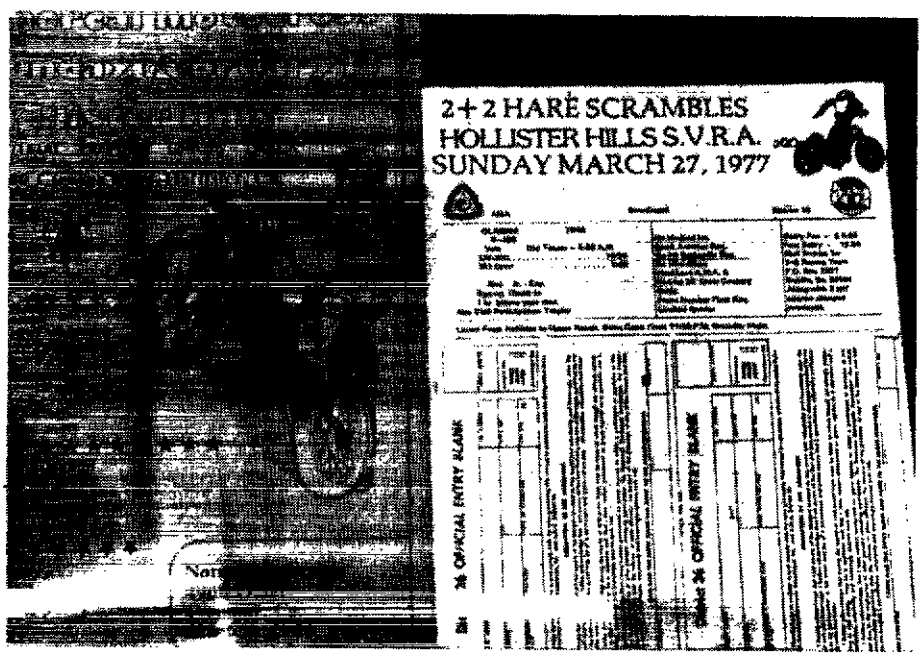
its operating costs by staging numerous promoted competitive events. However, capital costs and insurance costs would be prohibitive. It is doubted that a successful environmental protection program could be undertaken under such circumstances. For these reasons, it is not recommended that the entire unit be operated under a concession program.

Users have requested that the Upper Ranch be used for competitive events. Therefore, a trial program of promoted competitive events has been conducted. This service is very popular and it is recommended that the promoter-staged competitive events on the Upper Ranch be continued. It was found, however, unsafe to allow the sale of alcoholic beverages. It is therefore recommended that the sale of alcoholic beverages not be allowed within this unit.

Interpretation

Certain interpretive programs have emerged as an integral part of the activities of the Hillister Hills State Vehicular Recreation Area.

As mentioned under proposed developments, the department plans an interpretive display of earthquake monitoring equipment near the Lower Ranch entrance. The department also recognizes the opportunity to tell the story of the art and history of off-road vehicles. These programs will take place in the restored Vineyard schoolhouse.



ENVIRONMENTAL IMPACT REPORT

ENVIRONMENTAL IMPACT REPORT

Introduction

Hollister Hills SVRA is a unit of the State Park System that was classified September 1976. It could be argued that, since the unit has been operating for many years, first under the private sector and now under the public sector, an EIR would not need to be prepared for the development of new facilities, since new facilities for the most part would be replacing existing facilities or expanding the type of facility that now exists. It could be argued that another type of environment document could suffice for this project. However, the department feels this project deserves a thorough evaluation of the environmental factors; therefore, the following EIR for Hollister Hills SVRA has been prepared.

The Environmental Impact Report (EIR) is divided into three major sections:

(1) Description of Project; (2) Description of Environmental Setting; and (3) Environmental Impact. In keeping with the broad, general nature of the approach of the General Development Plan for Hollister Hills State Vehicular Recreation Area, the EIR is a broad assessment of the potential environmental effects. Whenever a specific phase of the overall plan is budgeted and proposed for implementation, a more detailed and specific environmental assessment will be prepared for that particular project.

It is essential that readers be familiar with the entire document--the Introduction, Background Information, the Resource Management Plan, and the General Development Plan--in order to thoroughly understand the analysis set forth in this report. To avoid needless repetition, the Environmental Impact Report incorporates by reference all the information contained in the preceding elements of this publication.

Description of Project

Location: See Location and General Description, p. 4.

Objectives: See Resource Management Plan, Purpose, p. 39 and the Introduction of the General Development Plan, p. 47.

Project Description: See General Development Plan, p. 56.

Description of Environmental Setting

Existing Environment: See Background Information, p. 17.

Environmental Impact

The Significant Environmental Effects on the Proposed Project

The significant environmental effects that the proposed project is expected to produce in particular areas are indicated on Chart I. (Wherever assessment was questionable, analysis was based on the worst possible potential effect.) As is to be expected, most of the adverse environmental impacts are related to the effect the off-road vehicles are expected to have on the soil and existing vegetation.

Chart I delineates the specific potential environmental effects that may occur when the project is implemented. In the vertical column, the major project areas are listed and referenced to the environmental factors listed along the top row. Environmental assessments were based upon information obtained from the Resource Management Plan and General Development Plan, the Resource Inventory Report, various public hearings and reports submitted by citizen advisory action groups. Where assessment was questionable, analysis was based upon the worst potential effect possible.

Short-Term and Long-Term Effects

The construction of facilities causing dust, use of energy, noise and other construction adverse impacts will be short term. All others will be long term as shown in Figure 17.

Chart I - Key

1. No Interaction: Project implementation does not cause a significant environmental effect because the proposed development or management does not interact with the environmental factor.

2. Beneficial Environmental Effect: The interaction of the proposed development or management with the environmental factor is favorable.

3. Nonsignificant Environmental Effect: Although the development or management interacts with the environmental factor, the effect does not cause a potentially substantial adverse change in the environment or the significant effect is mitigated by design criteria.

4. Significant Environmental Effects: The interaction between development or management and the environmental factor may cause a potentially substantial significant change in the environment which cannot be avoided if the proposal is implemented as proposed.

Significant Environmental Effects That Cannot Be Avoided If the Proposal Is Implemented

Some of the significant environmental effects that were designated in the previous section are unavoidable if the project is to be implemented. These effects are enumerated below, with a brief explanation of each.

FIGURE 17
SIGNIFICANT ENVIRONMENTAL EFFECTS OF PROPOSED PROJECT
CHART I
HOLLISTER HILLS SVRA

FACTORS		UPPER RANCH: TRACK AND TRAIL AREAS	UPPER RANCH: CAMPGROUNDS	UPPER RANCH: RESTORE SCHOOLHOUSE	LOWER RANCH: TRACK AND TRAIL AREA EAST OF SAN ANDREAS FAULT	LOWER RANCH: TRACK AND TRAIL AREA WEST OF SAN ANDREAS FAULT	LOWER RANCH: WALNUT ORCHARD PICNIC AREA AND BIRD CREEK CAMPGROUNDS	LOWER RANCH: NATURAL AREA	LOWER RANCH: CONCESSION BUILDING
GEOLOGIC	Seismicity	3	3	3	3	3	3	3	3
GEOLOGIC	Landslide	3	3	1	3	3	3	1	1
GEOLOGIC	Mudflow	3	3	1	3	3	3	1	1
GEOLOGIC	Mineral Resources	3	1	1	1	1	1	1	1
GEOLOGIC	Faulting	3	3	3	3	3	3	1	3
GEOLOGIC	Sand and Gravel Resources	3	3	1	3	3	3	1	1
SOIL	Slump and or Creep	1	1	1	3	1	1	1	1
SOIL	Subsidence	1	1	1	1	1	1	1	1
SOIL	Erosion	4	4	3	4	4	4	2	3
SOIL	Stream Siltation	3	3	3	3	4	3	2	3
SOIL	Topography	3	3	3	3	3	3	1	3
ENERGY	Efficient Use	3	3	3	3	1	1	2	1
ENERGY	Consumption	4	1	4	4	4	1	1	4
ENERGY	Distribution	1	1	1	1	1	1	1	1
BIOTIC	Rare and or Endangered Species	1	1	1	1	1	1	1	1
BIOTIC	Historically Important Trees								
BIOTIC — FEATURES	Riparian	3	3	1	3	3	3	2	1
BIOTIC — FEATURES	Chaparral	3	1	1	3	3	1	2	1
BIOTIC — FEATURES	Woodlands	3	3	1	3	3	1	2	1
BIOTIC — FEATURES	Grasslands	4	3	1	4	4	4	2	1
BIOTIC — FLORA DIVERSITY AND OR PRODUCTIVITY	Trees	4	3	1	4	4	4	2	1
BIOTIC — FLORA DIVERSITY AND OR PRODUCTIVITY	Shrubs								
BIOTIC — FLORA DIVERSITY AND OR PRODUCTIVITY	Grasses	4	3	1	4	4	4	2	1
BIOTIC — FLORA DIVERSITY AND OR PRODUCTIVITY	Microflora								
BIOTIC — FLORA DIVERSITY AND OR PRODUCTIVITY	Aquatic Plants								
BIOTIC — FAUNA DIVERSITY AND/OR PRODUCTIVITY	Birds	3	3	1	3	3	3	2	1
BIOTIC — FAUNA DIVERSITY AND/OR PRODUCTIVITY	Reptiles	3	3	1	3	3	3	2	1
BIOTIC — FAUNA DIVERSITY AND/OR PRODUCTIVITY	Amphibians	3	3	1	3	3	3	2	1
BIOTIC — FAUNA DIVERSITY AND/OR PRODUCTIVITY	Mammals	3	3	1	3	3	3	2	1
BIOTIC — FAUNA DIVERSITY AND/OR PRODUCTIVITY	Fish Shellfish	3	3	1	3	3	3	2	1
BIOTIC — FAUNA DIVERSITY AND/OR PRODUCTIVITY	Microfauna	3	3	1	3	3	3	2	1
BIOTIC — FAUNA DIVERSITY AND/OR PRODUCTIVITY	Insects	3	3	1	3	3	3	2	1
BIOTIC	Intro. of Non-native Plants or Animals	1	1	1	1	1	1	1	1
BIOTIC	Wildlife Migration Patterns	1	1	1	1	1	1	1	1
FIRE	Hazard	4	4	4	4	4	4	4	4
WATERSHED	Quality	3	3	3	3	3	3	2	3
WATERSHED	Consumption	1	3	3	1	1	3	1	3
WATERSHED	Stream Flow Capacity	1	1	1	1	1	1	2	1
WATERSHED	Surface Water Runoff	4	3	3	4	4	3	2	3
WATERSHED	Ground Water Contamination	3	3	3	3	3	3	2	3
WATERSHED	Percolation Rates	3	3	1	3	3	3	2	1
WATERSHED	Fresh Water Currents								
AIRSHED	Air Movement	1	1	1	1	1	1	2	1
AIRSHED	Precipitation								
AIRSHED	Temperature								
AIRSHED	Microclimate								
AIRSHED — POLLUTION GENERATION	Thermal	3	3	1	3	3	1	1	3
AIRSHED — POLLUTION GENERATION	Hydrocarbon	4	4	3	4	4	4	1	3
AIRSHED — POLLUTION GENERATION	Particulates	4	4	3	4	4	4	2	3
AIRSHED — POLLUTION GENERATION	NO_x and/or SO_x								
NOISE		4	3	1	4	4	3	1	1
LIGHT AND GLARE									
ULTRA-HAZARDS									
LAND USE	Scenic Vistas, Corridors or Highways	3	3	1	3	3	3	2	1
LAND USE	Zoning Regulations and/or Policy	1	1	1	1	1	1	1	1
LAND USE	Federal, State and/or Local Plans	1	1	1	1	1	1	1	1
LAND USE	Housing Availability	1	1	1	1	1	1	1	1
LAND USE	Open Space	3	3	1	3	3	3	2	3
LAND USE	Character of Surrounding Area	3	3	2	3	3	3	3	2
TRANSPORTATION	Road Capacity	3	3	1	3	3	3	3	1
TRANSPORTATION	Vehicular Circulation	3	3	1	3	3	3	3	1
CULTURAL	Archeological Sites	4	4	1	4	4	4	4	1
CULTURAL	Historical Sites	1	1	2	1	1	1	1	2
CULTURAL	Paleontological Sites	1	1	1	1	1	1	1	1
CULTURAL	Recreational Opportunities	2	2	2	2	2	2	2	2
CULTURAL	Aesthetics	4	3	2	4	4	3	2	2
PUBLIC SERVICE	Gas, Water and/or Electric Utilities	1	3	3	1	1	3	1	3
PUBLIC SERVICE	Police and/or Fire Services	4	4	4	4	4	4	4	4
PUBLIC SERVICE	Public Transit	1	1	1	1	1	1	1	1
PUBLIC SERVICE	Schools	1	1	1	1	1	1	1	1
PUBLIC SERVICE	Parks	2	2	2	2	2	2	2	2
PUBLIC SERVICE	Hospitals	4	1	1	4	4	1	1	1
PUBLIC SERVICE	Sanitation Facilities	3	3	3	3	3	3	3	3
HUMAN COMMUNITY	Population Density	1	1	1	1	1	1	1	1
HUMAN COMMUNITY	Distribution	1	1	1	1	1	1	1	1
HUMAN COMMUNITY	Residential Privacy	1	1	1	1	1	1	1	1
HUMAN COMMUNITY	Relocation of Persons or Businesses								

FIGURE 18
MITIGATION MEASURES
CHART II
HOLLISTER HILLS – SVRA

FACTORS	GEOLOGIC: Seismicity	GEOLOGIC: Landslide	GEOLOGIC: Mudflow	GEOLOGIC: Mineral Resources	GEOLOGIC: Faulting	GEOLOGIC: Sand and Gravel Resources	SOIL: Slump and/or Creep	SOIL: Subsidence	SOIL: Erosion	SOIL: Stream Siltation	SOIL: Topography	ENERGY: Efficient Use	ENERGY: Consumption	ENERGY: Distribution
UPPER RANCH														
TRACK AND TRAIL AREA									A B C	A	A		D	
CAMPGROUND									A B C	A	A			
RESTORE SCHOOLHOUSE														
LOWER RANCH														
TRACK AND TRAIL AREA EAST OF SAN ANDREAS FAULT									A B C	A	A		D	
TRACK AND TRAIL AREA WEST OF SAN ANDREAS FAULT									A B C	A	A		D	
WALNUT ORCHARD PICNIC AREA AND BIRD CREEK CAMPGROUNDS									A B C	A	A			
NATURAL AREA														
CONCESSION BUILDING														

FACTORS	BIOTIC: Rare and/or Endangered Species	BIOTIC: Historically Important Trees	FEATURES: Riparian	FEATURES: Chaparral	FEATURES: Woodlands	FEATURES: Grasslands	FLORA DIVERSITY AND/OR PRODUCTIVITY: Trees	FLORA: Shrubs	FLORA: Grasses	FLORA: Microflora	FLORA: Aquatic Plants	FAUNA DIVERSITY AND/OR PRODUCTIVITY: Birds	FAUNA: Reptiles	FAUNA: Amphibians	FAUNA: Mammals	FAUNA: Fish/Shellfish	FAUNA: Microfauna	FAUNA: Insects	BIOTIC: Intro. of Non-native Plants or Animals	BIOTIC: Wildlife Migration Patterns
UPPER RANCH																				
TRACK AND TRAIL AREA						C	C		C			I	I	I	I	I	I	I		
CAMPGROUND						C			C			I	I	I	I	I	I	I		
RESTORE SCHOOLHOUSE																				
LOWER RANCH																				
TRACK AND TRAIL AREA EAST OF SAN ANDREAS FAULT						C	C		C			I	I	I	I	I	I	I		
TRACK AND TRAIL AREA WEST OF SAN ANDREAS FAULT						C	C		C			I	I	I	I	I	I	I		
WALNUT ORCHARD PICNIC AREA AND BIRD CREEK CAMPGROUNDS						C	C		C			I	I	I	I	I	I	I		
NATURAL AREA												I	I	I	I	I	I	I		
CONCESSION BUILDING																				

FACTORS	FIRE: Hazard	WATERSHED: Quality	WATERSHED: Consumption	WATERSHED: Stream Flow Capacity	WATERSHED: Surface Water Runoff	WATERSHED: Ground Water Contamination	WATERSHED: Percolation Rates	WATERSHED: Fresh Water Currents	AIRSHED: Air Movement	AIRSHED: Precipitation	AIRSHED: Temperature	AIRSHED: Microclimate	POLLUTION GENERATION: Thermal	POLLUTION GENERATION: Hydrocarbon	POLLUTION GENERATION: Particulates	POLLUTION GENERATION: NO_x and/or SO_x	NOISE	LIGHT AND GLARE	ULTRA-HAZARDS
UPPER RANCH																			
TRACK AND TRAIL AREA	G				A								A C	D	D		D		
CAMPGROUND	G				A								A C	D	D				
RESTORE SCHOOLHOUSE	G																		
LOWER RANCH																			
TRACK AND TRAIL AREA EAST OF SAN ANDREAS FAULT	G				A								A C	D	D		D		
TRACK AND TRAIL AREA WEST OF SAN ANDREAS FAULT	G				A								A C	D	D		D		
WALNUT ORCHARD PICNIC AREA AND BIRD CREEK CAMPGROUNDS	G				A								A C	D	D				
NATURAL AREA	G																		
CONCESSION BUILDING	G																		

FACTORS	LAND USE: Scenic Vistas, Corridors or Highways	LAND USE: Zoning Regulations and/or Policy	LAND USE: Federal, State and/or Local Plans	LAND USE: Housing Availability	LAND USE: Open Space	LAND USE: Character of Surrounding Area	TRANSPORTATION: Road Capacity	TRANSPORTATION: Vehicular Circulation	CULTURAL: Archaeological Sites	CULTURAL: Historical Sites	CULTURAL: Paleontological Sites	CULTURAL: Recreational Opportunities	CULTURAL: Aesthetics	PUBLIC SERVICE: Gas, Water and/or Electric Utilities	PUBLIC SERVICE: Police and/or Fire Services	PUBLIC SERVICE: Public Transit	PUBLIC SERVICE: Schools	PUBLIC SERVICE: Parks	PUBLIC SERVICE: Hospitals	PUBLIC SERVICE: Sanitation Facilities	HUMAN COMMUNITY: Population Density	HUMAN COMMUNITY: Distribution	HUMAN COMMUNITY: Residential Privacy	HUMAN COMMUNITY: Relocation of Persons or Businesses
UPPER RANCH																								
TRACK AND TRAIL AREA	F								E				F		G				H					
CAMPGROUND	F								E						G									
RESTORE SCHOOLHOUSE										E					G									
LOWER RANCH																								
TRACK AND TRAIL AREA EAST OF SAN ANDREAS FAULT	F								E				F		G				H					
TRACK AND TRAIL AREA WEST OF SAN ANDREAS FAULT	F								E				F		G				H					
WALNUT ORCHARD PICNIC AREA AND BIRD CREEK CAMPGROUNDS	F								E						G				H					
NATURAL AREA									E						G									
CONCESSION BUILDING										E					G									

1. Erosion: The soil will be subject to erosion when new tracks are made and when soil is disturbed for new construction. Erosion has occurred at Hollister Hills SVRA for many years, even before the advent of motorcycles to the unit. Off-road vehicles use, mainly motorcycles, appears to have accelerated the process.

   The degree of erosion is influenced by soil type, gradient, erosion control and management, use intensity, rainfall, and wind.

2. Runoff of Surface Water: Soil compaction, the denudation of vegetation, and sheeting of soil caused by erosion will cause acceleration of water runoff on the slopes.

3. Vegetative Disturbance: New construction of facilities and continued off-road vehicle use will destroy vegetative cover, including grasses, forbs, chaparral, and trees. Soil compaction will affect roots of trees. Gullying caused by rapid water runoff and soil erosion will undermine tree roots.

4. Energy Consumption: The short-term construction activities and the long-term use of off-road vehicles at the unit will consume energy.

5. Air/Noise Pollution: Construction activities will create a temporary increase in air and noise pollution. Because of the nature of the off-road vehicle activity, which is the primary activity this park is being developed for, there will continue to be some noise and air pollution from the motorcycle activities.

6. Public Services: The need for police, fire, and medical services will increase as the use of the park increases.

7. Esthetics: OHV trails, hillclimbs, tracks, and roads produce influences that are esthetically degrading, both to persons on site and to distant viewers.

Mitigation Measures Proposed to Minimize the Significant Effects

Except for the commitment of energy resources, all of the adverse environmental effects can, to some degree, be mitigated. It is recognized that all soil losses cannot be mitigated. Alternative mitigation measures would be no mitigation whatsoever, or complete cost-prohibitive mitigation. The measures proposed are reasonable and flexible, in terms of new techniques.

Chart II suggests possible mitigation measures reducing the specific effects caused by project implementation. In the vertical column, the major project areas are listed and referenced to the environmental factors listed along the top row. Mitigation measures were predicated upon the findings of Chart I. Most mitigation will be incorporated into the design and development phases of the proposed project.

A. Erosion Control Measures: Erosion is the most critical problem at the unit. Various methods of erosion control are being used now and future developments in this field will be monitored. The Resource Management Plan discusses this in greater detail.

B. Location: The facilities that are proposed for development will be situated to best reduce impact on resources.

C. Revegetation: Areas which are closed for public use will be revegetated and soil erosion will normally be reduced during these closure periods. This includes seeding, discing and seeding, the use of hay, fertilizer, etc.

D. Technological Improvements that Produce Fewer Pollutants: Better designed off-road vehicle engines and use of and improvement in mufflers could reduce air pollution and noise pollution. Alternative sources of power for off-road vehicles may be a future reality. In addition, efforts will be made to make the public aware of the pollution problem and encourage them to refrain from "revving" their engines. This will minimize noise and air pollution.

E. Protection of Cultural Resources: Provisions will be made to protect archeological and historical sites. Surveys, research, collection and storage of artifacts, and the like, will be carried out prior to development.

F. Esthetics: Roads and trails will be hidden from the highway as much as possible. Landscaping will be used to help screen objectionable views. Road and trail construction will be done in ways to minimize visual impact.

G. Police and Fire Patrol: Maintenance and ranger patrol at the unit will provide additional surveillance. Spark arresters will continue to be mandatory for vehicles. Smoking and fires will be restricted to specified areas.

H. Hospital Services: Rangers trained in first-aid can help deal with the expected injury accidents.

I. Wildlife: Habitat will be protected as much as possible.

Mitigation measures are discussed in greater detail in the Resource Management Plan. If significant effects to neighboring properties and downstream areas occur, mitigation measures will be taken.

Alternatives to the Proposed Action

"No Project". One alternative is to make no changes at all in the existing conditions; however, the present facilities are inadequate for even the current use. Basic services such as sewage and water, and facilities such as restrooms, tables, and other appurtenances are inadequate or wearing out. New and replacement facilities are needed for the present services as well as the anticipated future use of the unit.

Any alternative that involves eliminating off-highway vehicle use would require reclassification of the unit and is therefore not being considered.

More or Less Elaborate Facilities. Variations in both the kind and the number of support facilities have been considered. For example, highly developed camp areas were considered, but the off-road vehicle public does not want revenues from the Off-Highway Vehicle Fund spent on "fancy facilities."

Variations in Types of Off-Road Vehicle Use Areas. Consideration was given to allowing motorcycle and four-wheel-drive use on trails on the Upper Ranch and Lower Ranch, and to building racetracks in various areas. In a number of public meetings, most of these alternatives were rejected for environmental or safety reasons. A suggested mix of users were agreed to by both four-wheel and two-wheel drive OHV users. This agreement is that the Lower Ranch will be used by motorcyclists and the Upper Ranch will be used by both four-wheelers and two-wheelers on a reservation basis on alternate weekends. The first and third weekends it will be used by four-wheelers; the second and fourth, by two-wheelers; and any fifth weekend will be kept for the first group to make reservations.

The Relationship between Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity

Off-highway vehicle use of this land will have cumulative and long-term effects.

Accelerated soil erosion, unless mitigated, will gradually denude the hillsides of topsoil, rendering the land less desirable for other uses, as well as less desirable for OHV use. Watershed potential and agriculture and grazing potential will be reduced, as more soil is lost. The potential for mining will be less affected.

This project will add to the many erosion problems in San Benito County. Soils in this area are also being eroded by over-grazing, mining, agriculture, construction, fires, etc.

Because of the past use of OHV's on this project, and because of the demand for continuation of this recreation activity, the project benefits were felt to outweigh the negative aspects.

Significant Irreversible Environmental Changes That Would Be Involved in the Proposed Action Should It Be Implemented

It is recognized that this project contributes to soil erosion in San Benito County. It could also increase demand for OHV recreation, and the likelihood of more OHV recreation areas. Significant irreversible environmental changes that would be involved in the proposed action would be the commitment of resources, such as the use of building materials for construction; the use of energy sources for various activities; loss of watershed; the loss of soils from trails, roads, hillclimbs and slopes; and the alteration of landforms in a few cases. Although a substantial amount of money, time, and effort would be required to restore any newly constructed facilities, tracks, and trails to their previous condition, it could be accomplished. It is recognized that soils lost to erosion cannot be replaced.

The Growth-Inducing Impact of the Proposed Action

The new and expanded recreation facilities are expected to increase the public use of the unit, but no significant growth-inducing effect on the local area or county is anticipated as a result of the proposed developments.

Organizations and Interested Persons

Members of various motorcycle and four-wheeled vehicle clubs and others who attended the public meetings re Hollister Hills SVRA.

Howard W. Harris (Geologist; also former owner and operator)
Howard G. Wilshire (Geologist, USGS)
Robert Webb, Craig Ragland, and Bill Godwin (Students, University of Redlands)

Selected References

Alpern, Morris, and Clayton, Charles. Motorcycle Park Planning and Management. Washington, D.C.: Motorcycle Industry Council, 1971.

American Motorcycle Association. Land Use Supplement. Worthington, Ohio: American Motorcycle Association, 1971.

Barrett, Nestor, Planning Consultant. "Land Use, Housing, and Scenic Highways." In General Plan for the County of San Benito, California. San Benito County Board of Supervisors, 1973.

Bennett, Shaun. A Trail Rider's Guide to the Environment. Westerville, Ohio: American Motorcycle Association, 1973.

Bury, Richard, and Fillmore, Ed. Design of Motorcycle Areas near Campgrounds: Effects on Riders and Nonriders. College Station, Texas: Texas A&M University, 1974.

California Division of Mines and Geology, California Geology, September 1977.

California Division of Mines and Geology, Fault Hazard Zones in California, by Earl W. Hart, Geologist, Special Publication 42, 1976.

California State Department of Parks and Recreation. REC-TIP (Recreation Technical and Information Paper) No. 7: Off-Highway Vehicle Registrants. Sacramento, 1974.

_____. The Off-Road Vehicle: A Study Report. Sacramento, 1975.

Campbell, Lane. "Riding Hollister Hills - Erosion Can Spoil It." Commentary in Cycle News, January 26, 1977.

Godwin, Bill; Ragland, Craig; and Webb, Robert. "Soil Erodibility and Erosion Control Recommendations." Manuscript on file with the California State Department of Parks and Recreation. 1977.

Harris, Howard. "Erosion Problems at Hollister Hills." Unpublished notes on file with the California State Department of Parks and Recreation. 1977.

Kroeber, A.L. Handbook of the Indians of California. Bulletin 78, Bureau of American Ethnology. Washington, D.C., 1925.

Litton, Burton. Forest Landscape Description and Inventory: A Basis for Land Planning and Design. U.S.D.A. Forest Research Paper PSW 49. U.S.D.A., 1971.

Rasor, Rob. "Fair Share." In AMA (American Motorcycle Association) News, August, 1976.

Reese, Robert W. "An Interpretive History: Hollister Hills State Vehicular Area." Manuscript on file with the California State Department of Parks and Recreation. 1976.

Roberts, Mariko. "Off-Road Motorcycle Recreation: Its Problems and Potential Solutions." Master's thesis, University of California, 1973.

Snyder, C.T.; Frickel, D.G.; Hadley, R.E.; and Miller, R.F. "Effects of Off-Road Vehicle Use on the Hydrology and Landscape of Arid Environments in Central and Southern California." In U.S. Geological Survey: Water Resources Investigations. 1976.

Taliaferro, N.L., Geologic Map of Hollister Quadrangle, California Division of Mines Bulletin 193, 1945.

U.S. Department of Agriculture. Soil Survey of San Benito County, California. U.S. Government Printing Office, 1969.

_____. Guides for Erosion and Sediment Control. Soil Conservation Service. Davis, California: 1975.

Webb, Robert. "The Effects of Off-Road Vehicles on Desert Soil in Dove Springs Canyon." In preparation. Notes on file with the California State Department of Parks and Recreation. 1977.

Wilshire, H.G. and Nakata, J.K. "Off-Road Vehicle Effects on California's Mojave Desert." California Geology 29(6):123-32.

Wilshire, H.G. Letters, etc.

Appendix

sample questionnaire

Please fill in below if you would like further participation in Hollister Hills SVRA.

Name _____

Address _____

Phone No. _____

APPENDIX A
SAMPLE QUESTIONNAIRE

FIRST CLASS
PERMIT NO.
4890
Sacramento, CA

BUSINESS REPLY MAIL
NO POSTAGE STAMP NECESSARY IF MAILED IN THE UNITED STATES

POSTAGE WILL BE PAID BY:

State of California
Department of Parks and Recreation
P.O. Box 2390
1416 Ninth Street
Sacramento, CA 95811

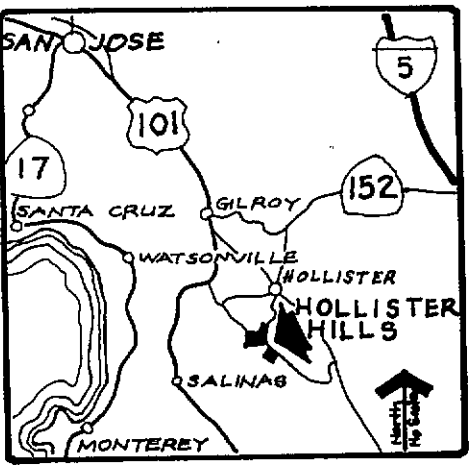
Save your Tax Money - If your attending the Meeting, Please bring this form w/ You - all answered. Thank You.

HOLLISTER HILLS STATE VEHICULAR RECREATION AREA = H.H.S.V.R.A.

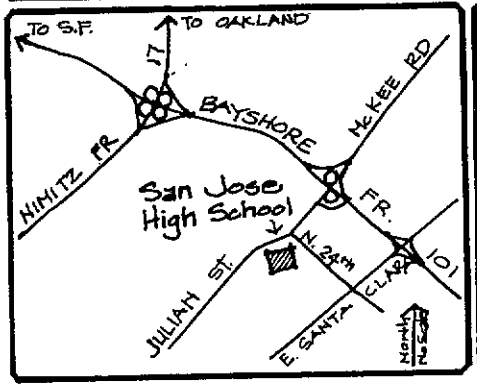
HISTORY:
ON JUNE 12, 1976, HOLLISTER HILLS WAS OFFICIALLY DEDICATED AS A STATE VEHICULAR RECREATION AREA. PRIOR TO THAT DATE, THE AREA HAD BEEN PRIVATELY OPERATED AS A COMMERCIAL VENTURE.

LOCATION:
H.H.S.V.R.A. IS LOCATED IN SAN BENITO CO., APPROXIMATELY 7 (SEVEN) MILES SOUTH OF THE CITY OF HOLLISTER ON CIENEGA RD.

SIZE:
H.H.S.V.R.A. IS APPROX. 3,000 ACRES.



YOU ARE INVITED ooo



...To A Very Important

PUBLIC MEETING

Date : October 28, 1976
Time : 7:30 p.m.
Place : San Jose High School Cafeteria - San Jose, Calif
San Jose High is located on Julian St at N. 24th st.

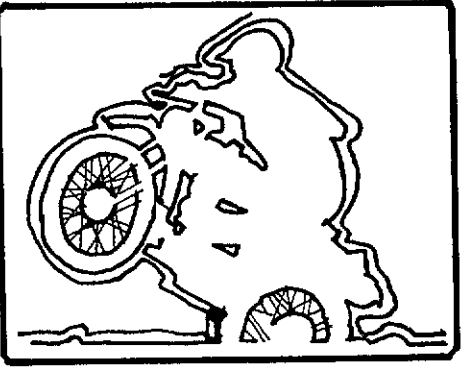
...& TO PARTICIPATE IN THE H.H.S.V.R.A. PROJECT

WE NEED YOUR HELP

THE CALIFORNIA DEPARTMENT OF PARKS & REC. IS NOW WORKING ON A GENERAL DEVELOPMENT PLAN FOR THE HOLLISTER HILLS S.V.R.A. THIS DOCUMENT WILL PROVIDE POLICIES FOR PARK OPERATION & WILL ALSO OFFER PROPOSALS FOR PARK DEVELOPMENT.

WHAT CAN YOU DO?

YOU CAN HELP DESIGN THE GENERAL PLAN FOR H.H.S.V.R.A. BY ANSWERING AS MANY OF THE FOLLOWING QUESTIONS AS POSSIBLE. please check all approp. boxes & reply promptly.



USER PROFILE

1. WHERE DO YOU LIVE? _____ (city) (county)
2. DO YOU OWN MOTORCYCLE? ☐ Yes ☐ No
   HOW MANY?
3. WHAT ENGINE SIZE?
   ☐ 0 – 100 cc ☐ 201 – 350 cc
   ☐ 101 – 200 cc ☐ 350cc & above
   ☐ ☐
4. DO YOU BELONG TO ANY MOTORCYCLE CLUBS?
   ☐ YES ☐ NO
   IF YES, give name & address: _____
5. WHICH FOLLOWING TYPE OF RIDING DO YOU DO?
   ☐ Hill Climb ☐ Trials
   ☐ Motocross ☐ Cow Trailing
   ☐ Enduro ☐ Hare & Hound
   ☐ T.T. ☐ Desert Riding
   ☐ OTHERS: (Specify) _____
6. WHERE DO YOU USUALLY RIDE?
   ☐ Your own Property ☐ Other Private Property
   ☐ State owned lands
   ☐ Federally owned lands (B.L.M. & U.S. Forests)
   ☐ City - County owned lands
   ☐ Commercial O.H.V. Area or Park
   ☐ other (Specify) _____
7. WHAT IS THE NAME of YOUR FAVORITE PARK & WHY? _____
8. HOW FAR DO YOU TRAVEL TO YOUR RIDING PLACE? _____ (miles)
   HOW FAR ARE YOU WILLING TO TRAVEL? _____ (miles)
9. WHEN YOU RIDE, DO YOU USUALL RIDE
   ☐ Alone ☐ With Friends ☐ With Family
10. HOW DO YOU USUALLY TRANSPORT YOUR MOTORCYCLE? _____

HOLLISTER HILLS STATE VEHICULAR RECREATION AREA = H.H.S.V.R.A.

1. HOW OFTEN HAVE YOU VISITED H.H.S.V.R.A.?
   ☐ More than 6 Times
   ☐ Less than 6 Times but at least 3 times
   ☐ Less than 3 Times but at least once
   ☐ Never
   WHEN WAS THE LAST TIME YOU VISITED? _____
2. WHAT DO YOU THINK IS THE REASONABLE ENTRY FEE FOR O.H.V. PARKS LIKE H.H.S.V.R.A.? _____
3. WE ARE HAVING SOIL EROSION PROBLEMS AT H.H.S.V.R.A. HOW WOULD YOU CONTROL THIS?
   ☐ Rotate Riding Areas
   ☐ Rotate Trails
   ☐ Chemical Treatment of Trails
   ☐ Manual grooming of Trails (Bulldozing, etc.)
   ☐ Do Nothing
   ☐ Experiment Further befor Deciding
   ☐ OTHERS _____
   ☐ COMMENTS _____

H.H.S.V.R.A. continued....

4. PARK PERSONNEL SHOULD BE AT H.H.S.V.R.A. TO
   ☐ Collect Fees Only
   ☐ Administer First Aid
   ☐ Patrol Trails
   ☐ Maintain Trails
   ☐ Enforce Rules & Regulations
   ☐ Give riding lessons
   ☐ Provide Nature Walks, Campfire talks
   ☐ Sell Food & Beverages
   ☐ Run a repair & Parts Shop
   ☐ Organize Events
   ☐ None of Above
   ☐ OTHERS:
5. ACTIVITIES & FACILITIES THAT SHOULD BE INCLUDED AT H.H.S.V.R.A ARE:
   ☐ Picnicing ☐ Fishing
   ☐ Trap & Skeet Range ☐ Archery Range
   ☐ Swimming ☐ Equestrian Trails
   ☐ Childrens Playsites ☐ Camping
   ☐ Concessions ☐ Pistol Rifle Range
   ☐ Interpretive Facilities ☐ Showers
   ☐ Telephones ☐ "4" Wheel drive trails
   ☐ Ballfields ☐ First Aid Station
   ☐ Hiking Trails ☐ Nature Study Areas
   ☐ Jeep Trails ☐ Bicycle Trails
   ☐ More Motorcycle Trails & Tracks
   ☐ others (Specify)
6. SHOULD SOME MOTORCYCLE ACTIVITIES BE SEPARATED FROM EACH OTHER?
   ☐ Yes ☐ No
   IF YES, which ones? _____
   Why? _____
7. SHOULD BIKES BE ALLOWED TO OPERATE IN CAMPING & DAY USE AREAS?
   ☐ Yes ☐ No
   Why? _____
8. H.H.S.V.R.A HAS UNIQUE ARCHEOLOGICAL & GEOLOGICAL FEATURES. WOULD YOU LIKE THESE FEATURES EXPLAINED & DISPLAYED?
   ☐ Yes ☐ No
   Why? _____
9. YOUR COMMENTS & SUGGESTIONS FOR H.H.V.R.A. —

THANK YOU FOR YOUR ASSISTANCE - H.H.S.V.R. PLANNING TEAM

Appendix B

SUMMARY OF QUESTIONNAIRES

SECTION I: USER PROFILE

The majority of motorcycle riders who attended the meeting and responded to the questionnaire live in the San Francisco Bay Area, especially around San Jose and its vicinity.

However, responses to the questionnaire came from as far south as El Toro (Orange County), and from as far east as Merced, California. Although most respondents did not belong to any motorcycle clubs, some were members with High Gear, Campbell Motorcycle Club, Santa Clara Riders Unlimited, California Enduro Association, Redwood City P.I.T.S., Salinas Ramblers, Ridge Runners, A.M.C., and M.O.R.E.

The overwhelming majority of respondents stated that Hollister Hills is their favorite riding place. Some of the reasons given were its close proximity, spaciousness, and a variety of trails and facilities. Other often mentioned favorite riding places were Carnegie Park (large, unrestricted and events allowed), Clear Creek (size and variety) and Three Rocks (variety of trails).

Almost all of the riders stated that they ride with friends and with family, bringing their motorcycles mostly by van and truck, and participate in a variety of riding activities. However, the most popular riding activities appear to be motocross, hillclimbing, and cowtrailing.

SECTION II: HOLLISTER HILLS STATE VEHICULAR RECREATION AREA

1. How Often Have You Visited the Site?

A majority of the respondents have visited Hollister Hills more than six times. One claimed to have used the site at least sixty times. Only six out of three hundred stated that they had never visited the Hollister Hills.

2. The Reasonable Entry Fee for H.H.S.V.R.A.

Many mentioned that the high fee structure has prevented them from going to H.H.S.V.R.A. On November 1st, 1976, the fee for each motorcycle was reduced from $3.00 to $1.00, although the $1.50 entry fee for each vehicle was retained. One rider, however, was not enthusiastic about this change and wrote, "I disagree with lowering the bike fee to one dollar. This will allow street riders, who ordinarily would not come in, to use the area. Dirt riders know the courtesy of the dirt trails--street riders for the most part do not." Furthermore, even with the reduction of the fee for motorcycles, complaints about the $1.50 vehicle entry fee were still common.

3. Soil Erosion Problems at H.H.S.V.R.A.

Suggestions were made for rotation of trails, riding area, water bars, manual grooming, and bulldozing to prevent erosion. One person kindly sent us the

article entitled "Fair Share" from AMA News dated August, 1976, which describes the State of Washington's imaginative trailbike system and their methods of combating erosion. This article is most informative and educational. We would appreciate receiving any other information and articles that might help us design and plan the unit.

4. Duty of Park Personnel at H.H.S.V.R.A.

Many of the respondents felt that unit personnel should collect fees, administer first aid, patrol and maintain trails, and enforce the rules and regulations. Many also felt that it would be desirable to have private concessionaires selling food and beverages and running a repair and parts shop. One person expressed the thought that the state should run the concession if the profit was put back into the off-road vehicle program. Many felt that organized events should be allowed at Hollister Hills, and that such events should be organized by both personnel and motorcycle clubs.

5. Activities and Facilities at H.H.S.V.R.A.

Many riders expressed a desire for motocross tracks and more riding areas. Interest was also expressed in play areas for children, telephones, camping facilities, showers, and a first aid station. One person stated, "The most important thing in my mind after years of enjoying Hollister is the need for showers, so the trip home can be as pleasant as the trip to the park. Hoses and an area to wash off equipment would also be of great help..." Several people pointed to the need for more trash cans. But not everyone was in favor of these improvements, feeling instead that the park should be kept as simple as possible. One writer said, "If you want to make H.H.S.V.R.A. a country club, make it one and forget all about motorcycles. You have a good park. Don't destroy it with facilities people would not use or enjoy." Many people responded negatively to pistol and rifle ranges and to jeep and four-wheel drive trails.

6. Should Some Motorcycle Activities Be Separated from Each Other?

Many felt that for safety reasons, competition and race events should be separated from "fun" riding, "novice" from "experts," and mini-bikes from regular bikes. One person suggested that the department post some of the easier trails as beginner or family trails with signs saying "Use caution so that slow family members can ride safely and enjoy."

7. Should Bikes Be Allowed to Operate in Camping and Day Use Areas?

Many people felt that it is necessary to operate the motorcycle to enter and exit from the campsite, but under controlled conditions. Many people suggested a 10 m.p.h. speed limit. Many condemned pit racing, noise, dust, and danger in camping areas.

8. Would You Like Unique Archeological and Geological Features Displayed?

Many expressed interest and suggested that such a display would be informative and educational. Quotes to support the display were:

"Many people have more interest than to ride a M.C. all day."

"Even bikers need to respect nature's gifts."
"Wife and kids might appreciate a break from bikes, bikes, bikes."
"This may add more respect to the park for those who don't realize just what they really have."
"To help recognize what a great area it is."
"Understanding of the sport for non-informed."
"Eliminate 'hells angel' image for dirt bikers."
"For visitors who do not ride."
"Could be possible that the area is better for other things besides bikes."
"People who ride Hollister often notice subtle changes in the earth due to various geological phenomenon. Would like to know more about this."
"Sure, why not give the eggheads a job, right?"
"Nature rides are not only interesting but give families a chance to ride together."

However, many feared that such a display might collect crowds. One stated "special interest groups would then have just cause for motorcycle park closure." Some of the other quotes expressing this sentiment were:

"I travel to H.H.S.V.R.A. to ride only."
"Not interested -- costs too much."
"I am here to ride."
"No interest to users."
"Waste of money."
"This park is for cycle riding, money should be used for this purpose not for depicting geological features."
"Should be protected, but I go to ride not sight see."
"Could result in closing area."
"Spend money for intended purposes of the park."
"Motorcycle park only -- if want geology lessons will be self motivated."
"It's stupid because it would collect crowds."
"Would it then become a tourist attraction?"

9. Your Comments and Suggestions for H.H.S.V.R.A.

It would be impossible to list all the excellent inputs we received. Some examples of the interesting comments are as follows:

"Enlist help from state colleges (Agriculture Departments?) in erosion control. Should make very good field workshops for students to work on continuous erosion problem"

"The quesionnaire reflects someone's desire to turn a good motorcycle park into a nature park..."

"What it all boils down to is that you need some more trails and much better track. Go ahead and invest some money and do it. You won't see me and my friends until then. Squids!"

"Your approach is great. Keep up the good work."

"Any way of controlling noise? It would help keep things sane and not chase off all wildlife."

"Open the upper ranch."

"A map showing all the trails with information on park hours and rules."

"If too many varied offerings are made available it would soon evolve that people would be complaining about the bike noise and eventually bikes would go. As it is now, it's great. A good place to enjoy off-highway riding with others who enjoy the same thing. Great family fun -- please don't ruin it!!!"

"Keep Hollister Hills simple and do not regulate it to death."

"Keep this park as a motorcycle only. It's the only place we've got. Sightseers, faint of heart should go somewhere else. It is as simple as that. California has hundreds of parks but only one in Northern California as unique as this one. Please keep it that way."

"I would sincerely like to thank the state of California for recognizing the need for such a park. I do feel that camping facilities should be separate from riding areas for safety reasons and noise levels."

"I think it would stimulate park use if the state would plan organized events such as motocross, hillclimbs, enduros and poker runs for all riders, experienced and non-experienced."

"Lower fees, more info to pass out to visitors, maps of area."

A) "Well-marked" one way trails. Biggest nightmare is a head-on collision. Please do everything to avoid these.
B) Lay out 10 and 20 mile trail loops.
C) Buy more surrounding land.

"Minibikers seem to be a major problem at Hollister Hills. On many occasions I have had close scrapes with them -- also today I almost hit a bicyclist. Enforcement of rules would help."

"I feel it is one of the best riding areas available. I only wish there were more like it."

"What is needed is a place to ride -- keep cost down so families can afford to ride on their property. And a camp area to keep cost down for overnighters."

"Much clearer maps should be made available of trails etc...Please mark 'advanced' trails enough in advance so amateur riders can turn around or not take a trail before it is too late."

"...the trails are fantastic but as far as erosion is concerned it doesn't appear to me to be the trails as such which are responsible. Rather, it appears that it is the steeper hillclimbs and the 'short-cuts,' which non-conservation minded riders make between trails, which are the cause of erosion..."

"...the H.H.S.V.R.A. is a beautiful thing and with some upkeep it can stay that way. However, it also has the potential of becoming one big track. This would render it a wasteland which would not be enjoyable to ride in."

Appendix C

PARTIAL LIST OF OHV PARKS IN NORTHERN CALIFORNIA

Publicly Owned and Operated

Hollister Hills SVRA
Located: 7 miles south of Hollister on Cienega Road (San Benito County)
Size: ± 3,100 acres
Owned and managed by: California State Department of Parks and Recreation
Days/Hrs: 7 days a week
Fee: $1.00 per bike, $1.50 per entry.
Facilities: ± 135 miles of trails, tracks, hillclimbs, pit toilets, campgrounds, and water; small concession on weekends.
Remarks: Safety requirements & silencers

San Luis Reservoir State Recreation Area
Located: San Luis reservoir (Merced Co)
Size: 1-1/2 mile of mini-bike trails
Owned and managed by: California State Department of Parks and Recreation
Days/Hrs: 7 days a week
Fee: $1.50 park entry fee
Facilities: 1-1/2 mile of paved mini-bike trail within state recreation area
Remarks: Not a motorcycle park

Clear Creek
Located: Near Idria on I-5 off Highway 25 (San Benito County)
Size: ± 60,000 acres
Owned and managed by: U.S. Bureau of Land Management
Days/Hrs: 7 days a week
Fee: Free
Facilities: Minimal camping by creek beds
Remarks: Various users include rock and mineral collectors, 4-wd-drivers, hunters

McGill Cycle Park/Sacramento OHV Park
Located: 13300 White Rock Road, Rancho Cordova (Sacramento County)
Size: 435 acres
Owned and managed by: Sacramento County
Days/Hrs: 7 days a week
9 to dark
Fee: $2.00 per bike
$1.00 per mini-bike
Facilities: Moto x, mini-bike course, hillclimbs, concessions, competition and open tracks, trails; projected facilities

Santa Clara County Park
Located: Metcalf Canyon Road, near Coyote (Santa Clara County)
Size: 250 acres
Owned and managed by: Santa Clara County
Days/Hrs: 8:30-5 Sat and Sun
11:00-5 Wed thru Fri
closed Mon and Tues (unless holidays)
Fee: $2.50 (16 years and over)
Free for visitors and those younger than 16
Facilities: First aid facility, parts shop, soft drinks, portable restroom
Remarks: Mostly trails, short tracks, hillclimbs, beginners area

Frank Raines Park/Rough Terrain Park
Located: Del Puetro Valley, near Patterson (Stanislaus County)
Size: 2,087 acres
Owned and managed by: Stanislaus County
Days/Hrs: 7 days/week
Fee: $1.50 per night per vehicle for camping fee; free for bikes
Facilities: Nature study, poker runs, camping, group use of Hall, trails and tracks for 4wd and motorcycle use
Remarks: Open for OHV use from
Nov. 1st to April 30th.
Closed for OHV use rest of year due to fire hazard

La Grange Off-Road Vehicle Area
Located: on Highway 132 near town of La Grange (Stanislaus County)
Size: ± 100 arces
Owned and managed by: Stanislaus County
Days/Hrs: 7 days/week

City of Santa Clara PAL
Located: Highway 237, Santa Clara and Lafayette North (Santa Clara)
Size: 50 acres
Land owned by: City of Santa Clara
Managed by: PAL (Police Athlete League)
Days/Hrs: 10-5 Saturday and Sunday
Fee: For 18 years old and younger $.50 per mini-bike
$1.00 per bike over 80 cc
For over 18 years old = $2.00
Facilities: Motocross track
Remarks: PAL membership required for those under 18 years old

Privately owned and Operated

Argyll Park
Located: 11 miles south of Dixon on Highway 13 (Solano Co)
Size: ± 200 acres
Owned and managed privately
Days/Hrs: 7 days a week
Fee: $2.00 over 80 cc
$1.00 under 80 cc
Facilities: competition - moto x track;
....a few trails and the tracks available on non-race days
Remarks: All race AMA-sanctioned; concession on race days; safety equipment required

Carnegie Cycle Park
Located: 15 miles southeast of Livermore (San Joaquin Co)
Size: 1,600 acres
Owned and managed privately
Days/Hrs: Thur-Sun 8 to 5
Fee: $4.00 over 100 cc
$3.00 per mini
$1.00 per spectator
Facilities: Emphasis on family recreation, trails, hills
Remarks: Popular usage; spectator events

Helvetia Park
Located: 2607 River Road, West Sacramento (Yolo Co.)
Size: ± 18 acres
Owned and managed privately
Days/Hrs:
Facilities: Swimming (2 pools), picnicking, baseball, volleyball, and other forms of outdoor recreation
Remarks: Spark arresters, helmets, gloves, boots, and approved safety equipment required

Sears Point
Located: Jct. Highway 37 and 121 (Sonoma County)
Phone (707) 938-4741
Size: 750 acres
Owned and managed privately
Days/Hrs: 7 days week 8 to 5
Fee: Pleasure $3.00 per bike race
$8.00 amateur
$15.00 expert
$8.00 spectator
Facilities: Motocross, road racing, day riding
Remarks: Entire area can be closed to motorcycles during S.P.C.A. car race. Call before coming. To get on track, must have A.M.A. membership card

Sacramento Raceway
Located: 5305 Excelsior Road, Sacramento
Owned and managed privately
Days/Hrs: Wednesday nights for special events
Fee: $2.00 spectator fee
Facilities: motocross and bicycle; motocross course
Remarks: Drag races on Wednesday nights; no trail riding

Appendix D

Comments (p. 89) and Responses to Comments (p. 119) on the Preliminary General Development Plan, Resource Management Plan, and Draft Environmental Impact Report.

340 Donald Drive
Hollister, Calif., 95023
September 10, 1977

State Department of Parks and Recreation
P. O. Box 2390
Sacramento, California 95811

Re: Hollister Hills Resource Management Plan, General Development Plan, and E.I.R.

Dear Folks:

As a former owner of the properties involved, originator of the park, operator of the land for over 50 years, together with college education and experience in soils, geology, plant physiology, and watershed management, I feel qualified to make a few comments on the Preliminary Report, as well as to have participated in suggestions for its preparation.

Going from front to back of the report, there are, in my opinion a few corrections to be made, in the following order:

1. Page v (Summary page) The figures given are not consistent with the acreage to be added with the acquisition property - there are some 1800 acres to account for.

2. Page 9 Figure 4 The residences on the lower ranch are not located accurately. Neither is "Poor Bridge Gate." Main Gate not shown.

3. Page 10 Figure 5 There are two roads with the same name: Back Field Ridge Road. The one on the west is Back Ridge Road, and the one to the east is Back Field Road. Adobe Road should be shown below Middle Field Road.

Near the bottom of the Figure is shown a "Fast" Trail. This should be East Trail. West Trail should not be shown on the Martin Ranch.

4. Page 48, paragraph 1 shows the walnut orchard on the lower ranch as ±50 acres, ±20 acres is more like it.

Paragraph 2. The use permit is to Granite Roack Co. Not to Granite Construction Co.

5. Page 49 Figure 15 Proposed Land Use
The area shown as buffer without riding of any kind must be a mistake! If the scale is accurate it would eliminate all of Creek Road, Walnut Camp Road, the mini-bike area above Walnut Campground, the kiddies area above Madrone Camp, Lower Field Road, and parts of Rancho Road and Bird Creek Roads, and close a part of Adobe Road! This is where most of the women and children ride and carries 95% of all traffic on the lower ranch. On the upper ranch it would close a major portion of the most stable soils, track and road. There may be some justification for elimination of aesthetically unpleasant scars next to Cienega Road, such as hillclimbing areas, but not the main road between the front and back of the ranch. Lower Field Road is not too visible, it is in stable soil, and on good grade. Along Bird Creek there is no justification for such closure except as it might apply for safety in campgrounds, and noise reduction. Any erosion associated with vehicular use is infinitesimal as compared with that occurring naturally along the banks during high water flows.

Sincerely yours,

Signed: Howard W. Harris

State of California — The Resources Agency

MEMORANDUM

To : Don Jackson
Program Development Office
Department of Conservation

Date: September 16, 1977

From : Department of Conservation
Division of Mines and Geology - San Francisco 94111

Subject: SCH# 77082321. Hollister Hills State Vehicular Recreation Area

I have reviewed geologic aspects of the subject EIR and offer the following comments:

1. The section on geology is extremely brief, over-generalized and not entirely accurate.

2. The Purissima Formation, which lies to the east of the San Andreas fault, is a sedimentary unit highly variable in its lithologic composition. The formation as a whole contains marine sandstones and shales, nonmarine sandstones, claystones, conglomerate, and lacustrine and lignite deposits. These different units have different stability and erosion characteristics so it is important to know which members of the formation are present in the study area in order to evaluate the erosional effects of vehicle operations.

3. The base map used for the several figures has no reference marks, such as latitude and longitude. This makes it difficult for reviewers, unfamiliar with the area, to locate the study area on other maps.

4. There is no indication of the source of the geologic information presented on figure 9, page 19.

5. The general statement (page 20) that "the sedimentary soils have a fairly high clay content and are not subject to erosion (as granite)", is not documented for the sedimentary soils of this area. In fact, the Nacimiento loam is described as being "severely eroded" in the legend for figure 10. Again on page 38 it is assumed that because the soils are derived from sedimentary formations they contain more clay than the granitic soils, this is not documented for these particular soils.

6. Although a buffer zone is proposed around the University of California Seismographic station, there is no evidence that the zone is of sufficient size to adequately shield the station's instruments from extraneous "noise". If discussions have taken place and agreements reached with seismologists of the University of California, this fact together with the substance and conclusions of these discussions should be so stated.

7. There is need for more detailed information on what measures have been taken to protect the drainage basins from siltation. The volumes of sediment that can be expected, the capacity of the silt traps and the effects on streams in areas not protected.

Signed: CHARLES C. BISHOP
Assistant District Geologist
San Francisco District Office
RG 3156

APPROVED:

Signed: Thomas E. Gay Jr.
State Geologist
RG 2634

State of California — The Resources Agency

Memorandum

To : Mr. Huey D. Johnson
Secretary for Resources
1416 Ninth Street
Sacramento, California 95814

Attn: L. Frank Goodson
Projects Coordinator

Date: September 19, 1977

From : Department of Fish and Game

Subject: Management Plan and Draft EIR, Hollister Hills State Vehicular Recreation Area, SCH 77082321

The Department of Fish and Game has reviewed subject report. The project is similar to a proposal reviewed in 1974, "Hollister Hills Motorcycle Playground, San Benito County."

In our previous comments, dated November 21, 1974 (copy attached) we recommended that limited hunting on the area be considered as an additional use. This possibility was not addressed in the present report. In the winter months, for example, when the area is too wet for ORV-use, it would be feasible to allow hunting for quail and wild pig.

We again recommend that consideration be given to allowing limited hunting on the area. We would be pleased to provide assistance to developing an appropriate plan.

To arrange a meeting, please contact Mr. E.V. Toffoli, Regional Manager, Region 3, Department of Fish and Game, P. O. Box 47, Yountville, California 94599, telephone (707) 944-2443.

FOR Director

Attachment

State of California — The Resources Agency

MEMORANDUM

SBE:EPR:pu:eg
Dept. of Parks & Recreation

To : Honorable N. B. Livermore, Jr.
Secretary for Resources
1416 Ninth Street
Sacramento, California 95814

Date: November 12, 1974

From : Department of Fish and Game

Subject: ES - Project and Environmental Impact Statement Review and Comment, SCH 74102132

The Department of Fish and Game has no adverse comments on the Draft Environmental Impact Report for Hollister Hills Motorcycle Playground, San Benito County.

The proposed acquisition of the approximately 3,100 acre Harris Ranch as a motorcycle playground by the Department of Parks and Recreation, would entail classification of this area as a State Recreation Unit. State Recreational Units can be managed so as to include hunting.

The Harris Ranch at one time was leased to a hunting club and provided good to excellent deer hunting and many hours of quality recreation. We recommend, therefore, that consideration be given to including limited hunting on this area.

The Department of Fish and Game is willing to provide assistance to the Department of Parks and Recreation in formulating a hunting plan for the area.

COPY SIGNED BY:

FOR DIRECTOR

GLG:jw

bcc: D
DD
CO
ESB
RF
R3
Gene Gerdes, R3

State of California — Agriculture and Services Agency

Memorandum

To : State Clearinghouse
1400 Tenth Street
Sacramento 95814

Date : August 25, 1977

File No.:

From : Department of General Services - Long Range Facilities Planning Office
1015 L Street - 95814
445-0780

Subject: Hollister Hills SVRA
Resource Management Plan,
General Development Plan -
EIR - SCH No. 77082321

The Department of General Services has reviewed the subject project and is submitting the following comments:

On Page 59, Acquisition, and Figure 17, the report does not discuss the required mitigation measure of Relocation Assistance to property owners if such an assistance is necessary. The Real Estate Services Division of General Services should be contacted relative to this service.

James R. Hargrove

James R. Hargrove,
Sr. Environmental Planner
Environmental Planning Section

JRH:ao

State of California

The Resources Agency of California

Memorandum

To : James Doyle
Environmental Review Section

Date : August 23, 1977

Subject : DEIR-SCH 77082321
Hollister Hills SVRA
San Benito County

From : **Department of Parks and Recreation**

The Office of Historic Preservation has reviewed the subject Draft EIR and noted several apparent deficiencies.

While the subject document has stated that two significant archeological sites exist within the proposed undertaking's area of potential environmental impact, the extent of possible direct and/or indirect impacts is unstated. It should not be assumed that the aformentioned prehistoric archeological sites represent the totality of archeological resources present at the Hollister Hills SRVA, as conversations with departmental archeologists has indicated that the subject area has never been subject to a cultural resource inventory.

As the proposed undertaking will take place in an area of high archeological sensitivity, it is recommended that in compliance with departmental Resource Management Directives(:40), and State EIR Guidelines(15082), a comprehensive cultural resource inventory and assesment be conducted as early as possible and certainly prior to any ground disturbing activites. Following determinations of the location, nature, extent, and current disposition of cultural resources, impacts resulting from implimentation of the proposed undertaking may be addressed and appropriate preservation measures formulated.

An apparent contradiction concerning departmental resource management policy was also noted. "Mitigation Measures"(p.70) states, in part, that cultural resources will be protected. While this statement appears to be in complete compliance with CEQA:15010 and 15011, as well as DPR Resource Management Directives, we are concerned over conflicting statements such as cultural re resources will be given a "lower priority" for interpretation(p.44), and "will be featured only in relation to OHV uses"(p.39).

If you have any questions concerning this review, please contact Nicholas Del Cioppo, Office of Historic Preservation, by calling (916) 322-8703.

K mellon

Dr. Knox Mellon
Historic Preservation Coordinator

cc: Mr. James P. Tryner, Chief
Resource Preservation and
Interpretation Division

Robert H. Webb
Billings House
1016 E. Colton Ave.
Redlands, CA 92373

James M. Doyle, Supervisor
Environmental Review Section
Department of Parks and Recreation
P. O. Box 2390
Sacramento, CA 95811

Dear Sir:

I am writing in response to your recent Hollister Hills SVRA Resource Management Plan, General Development Plan, and Environmental Impact Report. I shall make my presentation here brief since I believe you will find expansions to every criticism in the following references which you should have on file:

Webb, R.H., H.C. Ragland, and W.H. Godwin, 1977, Soil erodibility and erosion control recommendations -- final report on Hollister Hills State Vehicular Recreation Area: Unpublished report to the Resources Division, California Department of Parks and Recreation, 17 pages +Geologic and Soils Maps.

Webb, R.H., H.C. Ragland, and W.H. Godwin, and D.A. Jenkins, 1977, Environmental effects of soil property changes with off-road vehicle use: Environmental Management, in press.

COMMENTS

Summary, p. v. It is important you note which hillclimbs are to be left open.

Existing Features Map, p. 9. Are you intending to leave all of the hillclimbs shown on this map open? As noted in "Soil Erodibility...", these hillclimbs are all on soils with a severe erodibility rating with the exception of "Psyche Hills", which has severe creep and slump problems.

Major Trails Map, p. 10. Long Ridge Trail and Fremont Trail should be closed due to excessive erosion (see erosion description, "Soil erodibility..."). "Fast Trail" used to be called "East Trail" -- possible typographic error?

Soils, p. 20. (First paragraph). The phrase soil type refers to a textural classification. There are ten soil series at Hollister Hills SVRA and at

least two broad associations. I believe you are referring to the two major soil associations in the park, and you should note it as such.

(Second paragraph). The granitic soils erode severely...if disturbed.

(Third paragraph). As shown in both reports, Nacimiento soil erodes severely when disturbed because it is a sandy loam, not a loam.

Soils Map, p. 21. This map is based on the U.S. Department of Agriculture Soil Survey which shows broad areas of soil series. Since you need the specific boundaries of each soil series to plan trails and hillclimbs, this map is useless to your management plan. Please review the map we sent with "Soil erodibility..." and note that the textural types you give do not coincide with the data we obtained in January 1977.

Surface Hydrology Map, p. 24. You haven't included Back Springs (in drainage northwest of Basin Lake). Also, Lost Garner Lake is completely filled with sediment (as of January 1977) and will provide no catchment area as shown.

The Problem of Scarred Landscape, p. 29. If you would read "Environmental effects..." you would realize that off-road vehicles cause much greater problems than visually-scarred landscapes.

Introduction, p. 35. 1). This statement should be qualified since the granitic soils should not be used for off-road vehicle use because of severe erodibility.

2). I hope you are not measuring successful use of the area by the 200 cm gullies on Long Ridge Trail. Land management in the past at Hollister Hills was pitiful at best (see both papers for details).

p. 36. (Fifth line). "Potentially harmful" should be changed to "harmful". Note the literature review found in "Environmental effects...".

(lines 7-9). I hope you follow through with this statement by closing all of the hillclimbs shown on the Existing Features Map, page 9.

Management of Recreational Resources, p. 40-41.

2). Again, I hope you close the hillclimbs. As shown in "Environmental effects...", they must be "erosion problems" regardless of what limits of acceptable erosion you decide to set.

Management of Natural Resources, p. 42.

3). Rest and rotation will probably cause you more problems than it will solve because of the problems of soil mantle removal, soil compaction, and loss of nutrients. I suggest you review the literature on erosion control -- do you realize that rest and rotation techniques are used on agricultural and grazing lands?

5). Rehabilitation of badly eroded areas will be difficult unless you import soil to replace the displaced soil mantle. I strongly suggest you review the literature on revegetation and possibly contact Burgess Kay, revegetation expert at U.C. Davis.

General Development Plan Map, p. 57. Again, the hillclimbs you show lie on severely-erodible soils. Are you going to close them?

Your bibliography is sadly lacking. I would appreciate it if you would use a proper bibliography for all references.

You have definite problems with consistency throughout your manuscript. If you are not willing to close the major hillclimbs on severely erodible soils, how can you possibly begin to control accelerated erosion at Hollister Hills SVRA?

Yours truly,

Signed: Robert H. Webb

cc: James Tryner

9/9/77

Mr. James M. Doyle
Environmental Review Section
Department of Parks and Recreation
P.O. Box 2390
Sacramento, CA 95811

Dear Mr. Doyle,

Enclosed are my comments on the Resource Management Plan, General Development Plan, and Environmental Impact Report for the Hollister Hills State Vehicular Recreation Area.

The Resource Management Plan addresses the significant problems in a thorough and thoughtful manner, and your staff are to be commended for the depth of the analysis and the obvious hard work that went into its preparation.

I have analyzed critically all three sections in as much detail as time allows me because this document will doubtless serve as a model for future acquisitions of land for recreational vehicle use. For this reason, it is extremely important to make it as good as possible. I hope that my comments and criticisms will help improve it.

Sincerely yours,

Howard G. Wilshire

Howard G. Wilshire
1752 Begen Ave.
Mt. View, CA 94040

1/9/77

Critique of Resource Management Plan, General Development Plan, and Environmental Impact Report, Hollister Hills State Vehicular Recreation Area. H.G. Wilshire

General Remarks. While I in general endorse the conservation goals set out in the Management Plan, I believe that they have been overridden by the decisions of the Development Plan, and have not been adequately provided for in either the Management Plan or the EIR. Assurance of proper environmental safeguards is mandated by the Policies, Rules, Regulations, and Orders of the California State Park and Recreation Commission and the Department of Parks and Recreation, Div. 5, Chapt. 1, 5001.5, (d), 3, and by CEQA (14 Cal. Adm. Code 15012). It is not possible to assure or to demonstrate protection of the environment (14 Cal. Adm. Code 15011.5 (b)) unless standards of acceptable soil loss are predicated on the viability of the remaining soil, and unless methods of accurately monitoring the progressive degradation of the soil mantle are instituted. The reason is that recreational use of vehicles off the roads leads inevitably to accelerated destruction of the soil mantle and its substrate.

I. To allow timely and professional implementation of basic environmental safeguards, I recommend specific adoption of the following policies and practices. They are mandated by 14 Cal. Adm. Code 15143 (c).

(A). Specify standards of acceptable soil loss for each of the major soil types at Hollister Hills in terms of: (1) rate of natural soil regeneration; (2) ability to reestablish a vegetative cover sufficient to maintain erosional losses at a rate equal to or lower than the rate of natural soil regeneration, or at a rate no greater than the ambient natural level; (3) ability to guarantee restoration of vegetation to a level sufficient to eliminate adverse off-site and on-site effects of erosion in the event of closure of the facility.

(B). Establish specific techniques, instruments, and semi-permanent survey stations for quantitative monitoring of the level of soil degradation to assure proper implementation of (A). Specify a recording and reporting interval (I suggest a 3 month recording interval supplemented by after-storm recording).

(C). Establish specific techniques, instruments, and permanent survey stations for monitoring runoff, water quality (14 Cal. Adm. Code 15145), and siltation along drainages at property boundaries to assure compliance with Policies, Rules, Regulations, and Orders, Div. 5, Chapt. 1, Section 5001.5, (d),3.

II. The policies and recommendations of the General Development Plan do not reflect an understanding of existing problems of erosion:

(A). Specific policies for soil conservation techniques, such as soil stockpiling from new developments, are needed, and the required erosion-control developments should be designated in full on the General Development Plan map, p. 57.

(B). The acquisition recommendation shows lack of awareness of the information available on erosion hazard as the proposed acquisition area is underlain by the most erodible soils in the entire area and is very steep.

As an alternative, I suggest negotiation for the right to erect an appropriately placed catchment dam across Bird Creek (which would bridge the property line). This will allow solution of the problem of on-site retention of sediment without opening new terrain to excessive erosion as will certainly be the case if the proposed acquisition is developed.

If the lessons of the present uncontrolled erosion are to be used, then acquisition interests should center on specific clay-rich soil types developed on the Tertiary sedimentary rocks. It should be emphasized that even with judicious selection of land having least erodible soils, the problem of highly accelerated erosion must be faced. It may be possible to control it on land with the least erodible soils; it is clearly not possible to accomplish control with trail layouts that meet the desires of the users in the most erodible areas.

III. Correction of existing problems. In both the Management and Development Plans there are numerous openly contradictory aims and goals regarding the existing facilities, which indicate an uncertain policy. The urgency of dealing with erosion problems that exist right now is masked by comments such as: the facility has been used for a number of years as an ORV facility; the site has been used successfully for motorcycles; the site was eroding from other causes before vehicle trails were installed; and the like.

It is well known that most of the development leading to the present serious erosion problem took place between 6 and 8 years ago. The effects of these developments in this short time are gross and unacceptable by any soil conservation standards.

In my opinion, correction or closure and reclamation of existing unacceptable erosion areas should be a firm and immediate policy, involving the following:

(1) Independent professional judgment made by the Soil Conservation Service on trails, areas, and hillclimbs that have undergone unacceptable

soil losses, or that contribute to unacceptable runoff and sediment yield either on-site or off-site. I believe that these judgements should be made on the basis of the standards outlined under I (A).

(2) Independent professional judgement made by the Soil Conservation Service on corrective measures needed on existing facilities to reduce erosion rates.

(3) Detailed breakdown of the success of reclamation in terms of existing state of soil degradation, soil type, terrain factor, and time of trail installation; quantitative analysis of the effectiveness of erosion control and level of biological productivity of restored lands.

A vigorous program of correction and reclamation will provide invaluable data for future management and planning purposes, it will allow accurate budgeting, and it will go far toward enhancing the credibility of Parks and Recreation as an administrator of this activity which has problems more akin to strip mining than to traditional recreation.

Specific Comments. Keyed to draft text.

p. v. Summary of facilities to be provided. The 9 hillclimbs item is inconsistent with the goal of minimizing adverse impacts to soils. Hillclimbs cannot be maintained on any sites underlain by granite-derived soils without rapid, total loss of the soil mantle. Twin Hills hillclimb, on less erodible soils, was 28 inches into bedrock the last time I measured it, and the upper 1/4 or more of Super Hill is bedrock exposure, each having been stripped entirely of the soil mantle. Psych Hill erosion cannot be maintained on the property and should have been closed long ago. Drag Hill is the only area I know of that can take the beating for long, and it too shows serious wear.

Throughout the document, too much management emphasis is placed on user jargon. The critical factors for erosion control that you have the power to manipulate are slope length and gradient of trails, tracks, runs, areas, and hillclimbs. Erosion is just as harsh on a steep trail as on a steep hillclimb on sensitive soils, so the emphasis on "hillclimbs" is unwarranted.

p. v. Summary. I strongly recommend that no competitive events be allowed on Upper Ranch southwest of the San Andreas Fault except on the flats. Competitive events on granite-derived soils will have extremely harsh and uncontrollable erosional consequences.

p. 9. This map clearly illustrates the meaningless jargon. The numerous "hillclimbs" in the Drag Hill-Lone Tree Ridge area, and those facing Cienega Rd. are not listed. It would be much more useful to show all trail segments with specified gradients whether the users call them hillclimbs or not.

p. 12, 1st sentence. What increased patrolling of illegal riding areas? Although the Chappie-Z'berg law provides for expenditure of funds to control this use, it is not apparent from our studies that any funds are being so used.

p. 19. Sources of the geology should be cited fully--how else can one judge the quality of the data?

p. 21. Cite sources of the information.

p. 20. These doc uments must be cited in the bibliography. The reference to Webb and others is incorrect. Should also have references to their final report to you, their 3 abstracts published by the Southern California Academy of Sciences, and the report accepted for publication by the Journal of Environmental Management. The SCS report to the State on Hollister Hills should also be cited.

p. 23. Source of slope data not cited.

p. 24. North Canyon catchment incorrect between the 2 dams. Note that 6 of 9 "hillclimbs" are out of "protected" catchments!

p. 25. No source cited. If any of these maps were generated by the State rather than from citable publications, then a statement of techniques and duration of the study should accompany the map. There is no other way to judge the quality of the data.

p. 26. The arrows are not representative of the panorama scope. I can see Hollister from a number of trails on Lower Ranch.

p. 29, last para. The first sentence pretty well sums up the visual consequences of this activity! Now, if only the Martin Ranch can be acquired, the problem of relief can be corrected!

p. 30, 1st para. I would like for you to list all closures and give precise information on the degree of "natural rehabilitation". Are you aware, for example, that Long Ridge Trail has developed gullies nearly 6 feet deep since its closure, and this in a year with so little rainfall? The trails and areas at the east boundary along Cienega Rd. are not even partially rehabilitated and are undergoing accelerated erosion (even under the mustard!), as are all those trails facing the campgrounds that have signs reading "closed for rehabilitation".

Furthermore, if "excessive scarring and erosion" were true criteria, a very large number of other trails, areas, and hillclimbs would be closed too, just for example, the ones illustrated above this statement (both of which are eroded to bedrock).

p. 35. I once again challenge the honesty and accuracy of the introductory statements.

Item 1. The combination of topography and soils is precisely what makes the area as a whole unacceptable for this use. I believe that even with careful and judicious management, ~~there~~ the level of irretrievable soil loss will be unacceptable by any soil conservation standards.

Item 2. The previous use has not been successful in any sense of soil conservation, biological productivity, scenic enhancement or preservation, or flexibility of future use.

Item 3. Are the neighbors fully aware of the consequences to their land?

p. 35, Use of resources, 2nd para. The only locations you have to accomplish this are the parts of the area underlain by sedimentary rocks (and not all of those!).

p. 36, 1st para. What constitutes "necessary degradation"?

It is strange to see you say that "off-road vehicle use is potentially harmful to both soils and vegetation" in the light of the information available to you. It is rather like saying that a bulldozer with blade down is potentially harmful to the soil.

p. 37, 3rd para. I agree with this assement. Therefore, use of all terrain underlain by granite-derived soils must be severely restricted, with only specially designed trails of low slope and few of those if the goal of minimizing erosion is to be achieved, and a hope of long-term reclamation

and restoration of biological productivity is to be realized.

p. 37, 4th para. While I am no biologist, this statement, which appears in most apologies for ORV use, seems rather ridiculous as it does not allow for the total system effects beyond the immediate, introduced boundary. An obvious example is to consider plant enhancement along highways a benefit while ignoring the downslope effects of intercepting and concentrating surface runoff.

p. 38, 1st para. Are these Hollister Hills observations or from a textbook?

p. 38, 3rd para. Steep anything should be avoided west of the fault. The land doesn't care whether you call it a hillclimb or a trail, it will erode the same.

p. 38, 4th para. The intensity of rainfall is less important than how wet the soils are. When they are wet, the area should be closed because, as you point out, the trails are not negotiable and the users head for the grass. The soil damage by direct impact is much greater when the soil is wet than when it is dry.

p. 38, 5th para. It is clearly false to say that "except for gully enlargement, trails (on granite-derived soils) do not get progressively worse as a result of motorcycle use". These soil types, and the near surface granite bedrock are extremely sensitive to direct mechanical erosion by the vehicles which ultimately have the same effect as gullies.

p. 39, 1st para. It has not been "successfully used for ORVs" prior to State acquisition. The State bought an existing serious environmental problem, as it is in the process of doing at Hungry Valley.

p. 39, 2nd para. I endorse these aims. The question is how to achieve them. Should add here: (1) conduct professional studies of the feasibility of rehabilitation; (2) install and maintain systems for quantitative monitoring of soil loss and deposition that will allow prompt closure at a time when rehabilitation is still possible; establish a program of quantitative monitoring of wildlife populations and vegetation. (3) establish a clear policy of permissable soil degradation that can be quantitatively

measured, predicated on acceptable erosion rates and feasibility of rehabilitation.

If additional standards of desired longevity of use areas are established, then you can come to grips with the factors of the universal soil loss equation that can be manipulated.

p. 40, item 2 under Management of Recreational Resources. This goal requires a standard for acceptable loss. Note that the standard of 5 tons/acre/year used by Webb and others as a basis for computing acceptable trail gradients is based on an assumed soil regeneration rate of 1 cm/30 yrs, which is certainly far greater than the actual rate of soil formation at Hollister Hills. Therefore, trail gradients will have to be substantially less than 5° on granite-derived soils.

I endorse the goals of item 2. You have a great deal of remedial work to undertake right now to get the existing system in order.

p. 41, item 7. I hope that you understand that "grooming and maintenance" will greatly increase the erosional losses. Correction of the bernouilli effect of gullies is more than counterbalanced by breaking surface seals. Grading will in general not reduce soil erosion, rather the opposite. I have referred you to the relevant USDA research reports on this matter before.

p. 41, item 8. The water bars and diversions that you have installed have concentrated runoff to the point of damaging erosion. You may be able to have the benefits of the bars without this effect if the runoff is piped directly to a catchment basin.

p. 41, after "Allowable Use Intensity", another section dealing with seasonal closures is needed: (1) wet ground conditions; (2) extreme fire hazard; (3) wildlife nesting and mating seasons.

Self-regulation, item 1, is a vain hope, and policy should not depend on it.

p. 42, item 2. This is quite inadequate. A standard that can be quantitively measured is essential along with a clear policy of timely monitoring.

p. 42, item 3. In this regard, read your own statement on p.37, 3rd para.!

The "rotation and rest" management policy is not a viable policy as I have pointed out to you before. This implies reuse which is on a time scale that is totally irrelevant to the time required for soil regeneration. Also, this policy will result in increased erosion rates. I have referred you to relevant USDA publications on this matter too.

p. 42, item 5. This "close monitoring" will be credible only with a policy statement establishing a quantitative monitoring network, along with a clear policy for timely reclamation at such time as permissable soil loss has occurred. By virtually any soil conservation standards, acceptable soil loss has been exceeded on a very large proportion of existing facilities. When will reclamation start?

p. 43, item 6. Why not tackle Long Ridge Trail for starters to see what you are really up against?

p. 43, Vegetation and Wildlife. This policy requires seasonal closure during mating and nesting seasons. Protection of habitat means the erosional debris from used areas cannot, as it is now, be spread over unused terrain.

p. 43, Geological Values. Out of curiosity, how are you going to set about "preserving" the San Andreas Fault?

p. 44, Anti-Pollution, item 1. First, catchment dams will remove sediment but not dissolved, emulsified, or floating pollutants. How about a proper water quality monitoring? Second, the act of removal of suspended and traction load results in increased downstream erosion. I suggest a program to monitor this and compensate the owners.

Item 2. How will you "check" vehicle exhaust emissions?

p. 48, Carrying Capacity, last para. The name "hillclimb" is of no importance. What is important is the soil erodibility, slope steepness, and slope length. I strongly urge you to rid yourself of the jargon and stick to the issue.

p.55, 1st para. It should be openly admitted that most of the serious trail deterioration on Lower Ranch is no more than 8 years old. The erosion rates implied by this deterioration far exceed any acceptable soil conservation standards. These words try to soften the magnitude of the problem.

p. 55, 5th para. This is progress, now where?

p. 56, 1st para. Since you say the users themselves are willing to put funds into erosion control, why does nothing along this line appear in the map on p. 57?

p. 58, Trails, Tracks, Hillclimbs, and Courses. This simply countermands the conservation program set out in the Management Plan declarations 2,3, 4, and 5, p. 42. There is no consistent scientific basis relevant to the goals of the management philosophy or management procedures by which the statement under this heading can be justified. Since the management goals with respect to undue erosion are specific, should not the existing system be examined to see if unacceptable conditions exist? They certainly do, and this statement flatly contradicts the management goals.

p. 58, Fencing. Containment of erosion products is inconsistent with the presence of trails, etc. close enough to the property boundary to require this.

p. 60, 1st para. The land intervening between the Upper and Lower Ranches has decidely poor potential for ORV use with or without good management. It is a very poor reflection on the obvious lessons of the existing use areas to even consider developing any additional land for ORV use that is underlain by granite-derived soils as steep as the subject land.

While the management section shows awareness of the critical problems of erosion, the development section does not.

p. 61, 2nd. para. These are useful goals, but developing the land for ORV use is to deny the simple facts. The needed catchment dam(s) on Bird Creek should be installed--by land purchase if necessary. But no additional land with the soil types in the proposed acquisition should be bared to erosion.

p. 61, 3rd paragraph. I suspect that an EIS will be required for such a project!

Environmental Impact Report

I do not believe that the EIR provides an adequate statement, or that it fulfills the requirements of CEQA. The introduction is worded in a manner that implies that you may withdraw it if it is critically evaluated. However, I believe that it could also be argued that the existing state of land degradation at Hollister Hills vitiates any prior environmental analysis. Moreover, significant new actions are proposed that were not covered in the original EIR, and the Management Plan sets forth goals much more far-reaching than dealt with in the original EIR.

p.66, Significant Environmental Impacts. With the exception of schoolhouse restoration and concession building items, for which no clear description of the changes planned is given, I challange the "worst possible potential effect" assessment of a great many items. The assessments clearly show a lack of knowledge, especially of the capacity of vehicles to directly modify the land and erosional consequences, and make no allowance for off-site effects that must take place whatever corrective actions are taken. In all cases tabulated below, I believe that the assessments are too conservative to qualify for "worst possible" designation, and for many of those with which I disagree, I believe my assessment represents the likely rather than the worst possible eventuality.

In my opinion each of the following items of Fig. 17 should be rerated to the next most severe impact category:

Geologic: landslide, mudflow, sand and gravel resources

Soil: stream siltation, topography

Energy: efficient use (if Natural is 2, others can't be 1)

Biotic: riparian, chaparral, woodlands, shrubs, birds, reptiles, amphibians, mammals, fish, microfauna, insects, (introduction of nonnative plants?)

Watershed: quality, (consumption?), stream flow capacity, surface water run-off (3 ratings), ground water contamination, percolation rates.

Airshed: thermal, microclimate

Noise (1 ratings)

Land Use: Scenic vistas (air view), (open space should be 3 not 1!), character of surrounding area.

p. 66, Unavoidable Significant Impacts. This statement does not give due consideration to both the short-term and long-term effects as required by 14 Cal.

Adm. Code 15143 (a).

(1) Erosion is a process not an effect. The significant unavoidable environmental effects resulting from accelerated erosion have hardly been touched upon in this description.

p. 69, Mitigation Measures Proposed to Minimize the Significant Effects.

A. Erosion Control Measures. 14 Cal. Adm. Code 15143 (c) requires that "the discussion of mitigation shall distingusih between the measures which are proposed by project proponents to be included in the project and other measures that are not included but could reasonably be expected to reduce adverse impacts." This discussion does not deal with the critical factor of slope control of trails as advised by four independent reports to the State. While the Management Section deals (inadequately) with this, the Development Plan countermands this by retaining existing trails as they are. Continued use of these trails, under the proposed Development Plan, will result in highly significant additional damage that can be avoided.

Further, 14 Cal. Adm. Code 15143 (c) requires this discussion to include "identification of the acceptable levels to which such impacts will be reduced, and the basis upon which such levels were identified." This discussion is lacking altogether; it is the subject of my recommendations I A-C.

Further, 14 Cal. Adm. Code 15143 (c) recommends separate discussion of the several measures available to mitigate an impact, and the basis for selection should be identified. It would be nice to see this done, along with an assessment of the effectiveness of the methods you say are in use. In my opinion, mitigation measures as shown in Figure 18 are inadequate as follows:

Soil: erosion, C's are needed
stream siltation, A's are needed
topography, A's are needed
Need seasonal (wet) closure protection

Biotic: Needs nesting/mating season protection

Watershed: A and C ratings needed for: quality, consumption, stream flow capacity, percolation rates. C's needed on surface water runoff

Airshed: A & C for microclimate

Land Use: F for scenic vistas

p. 69, item C. Can you be more specific?

p. 70, item D. There are already "technological improvements" to reduce pollutants, and CARB endorses restrictions that will eliminate the 2-stroke dirt bike engines. If this is a serious statement, which I doubt, then why

not require 4-stroke engines?

p. 70 F. When will all trails facing Cienega Rd. be eliminated?

p. 71. Relationship between Short-Term Uses.....

This statement does not address the matters required to be addressed by 14 Cal. Adm. Code 15143 (e), which include the cumulative and long-term adverse effects on the environment, and the effects that reduce the range of beneficial uses of the land. Instead, the statement is largely a collection of irrelevant remarks that are designed to rationalize approval of the project (see 14 Cal. Adm. Code 15012).

p. 72. Significant Irreversible.....

The content of this statement is generally reasonable though incomplete (for example, it does not include watershed). Considering that soil is the very foundation of the life support system of the land, however, the introductory remark that "The only....." is inappropriate. The irretrievable (in human terms) commitment of the soil resource is a major consequence of this project. Restoration to original condition of new constructions (and continuous modifications of old ones resulting from this project) cannot be accomplished unless you steal the soil from some other place to replace that lost by erosion.

p. 72. I take more than mild exception to being listed as either a consultant or an Advocate of the Sierra Club. The State can hardly be deemed to have sought my advice! I have never served as an advocate for the Sierra Club or any other organization on any matter whatsoever. I do advocate, as a private citizen, good land use management, which is why I have gone to the trouble of critiquing this document.

p. 73-74. This list is inadequate and should be expanded to include all published reports and unpublished reports solicited by the State that are directly relevant to Hollister Hills. Why not make it a bibliography?

p. 87. Perhaps being acknowledged as a member of the ORV users groups will have beneficial side effects; however, it does make your accuracy look a little threadbare!

RESPONSES TO COMMENTS ON PRELIMINARY GENERAL DEVELOPMENT PLAN, RESOURCE MANAGEMENT PLAN, AND DRAFT ENVIRONMENTAL IMPACT REPORT

Response to Howard W. Harris

1. The acreage listed does not include the recommended Martin Ranch acquisition.

2. Figure 4 will be corrected.

3. Figure 5 will be corrected.

4. p. 48. The noted errors will be changed.

5. Figure 15 is a schematic drawing. The buffer zones are not as wide along Bird Creek or Cienega Road as shown on the proposed land use map.

Response to State of California, Department of Conservation, Division of Mines and Geology

1. & 2. We agree that the section on geology is brief. More detailed references on the geology of the project, including the Purisima Formation, is available in our files. The report is not meant to be a highly technical report.

3. The project is located on page 5, Regional Map. Latitude and longitude of this project are 36°46'N and 121°25'W.

4. Agreed, the source of Figure 9, Geology, should be cited.

5. Soil Survey of San Benito County by the U. S. Conservation Service indicates that the soils derived from sedimentary rocks have clay content of 70%-95% whereas soils from granitic soils have 15%-50% clay. Nacimiento loam is 70%-80% clay.

6. The buffer zone to protect the U. C. Seismographic Station was deeded to the University by the former owner. This deed restriction is +60 acres. The actual buffer area, which is used as a nature area, is closer to 300 acres.

7. The surface hydrology map, Figure 12, was originally drawn to point out areas in need of additional drainage protection. The map shows conditions as they were in 1976. Since that time, the Department has constructed additional drainage basins. The map was for illustrative purposes only and would require continual updating to be current.

The Department has initiated erosion control programs and will budget more in the future to construct additional erosion control devices to protect additional areas in the drainage and to maintain the effectiveness of our various erosion control techniques.

At this time we do not have additional information on volumes of sediment and capacity of silt traps. However, the Department does clean out basins annually and will have this type of information in the future.

Response to California Department of Fish and Game

Subject: Consideration to be given to allowing limited hunting at Hollister Hills SVRA

Generally hunting and motorcycle riding are incompatible activities. Our planning studies and the unanimous sentiment at our public meetings was that hunting should not be allowed at Hollister Hills. However, at the October 1977 California State Park and Recreation Commission meeting the subject was discussed by the Commission in a more positive vein. There are legal questions which need an opinion before the subject of hunting can be investigated further.

It is felt that if hunting were to take place it would need to be very restrictive. Possibly the upper ranch area could be used for hunting on weekdays.

Response to State of California, Department of General Services

Acquisition, p. 59, and Figure 17. An environmental document for acquisition will be prepared at the time the acquisition proposal is more eminent.

Response to Dr. Knox Mellon, Office of Historic Preservation

A comprehensive cultural inventory and assessment will be scheduled for Hollister Hills SVRA.

Although protection of cultural resources will have high priority, interpretation of these resources will not have a high priority.

Response to Robert H. Webb

Summary, p. v. This summary and Existing Features Map, p. 9, show existing conditions, including nine hillclimbs. Three existing hillclimbs will be closed in the lower ranch area, west of the San Andreas Fault. This is shown on page 57, General Development Plan.

Major Trails Map, p. 10. Long Ridge Trail is closed and parts of Fremont Trail are also closed. Others may also be closed, as described on page 42, Resource Management Plan. The typographical error in spelling of East Trail will be corrected.

Soils, p. 20, paragraph 1. The text will be changed to indicate two broad categories of soils based on underlying parent rocks.

Paragraph 2. Granitic soils will erode severely if disturbed if the gradient is steep or long. We do not feel that paragraph 2 should be changed.

Paragraph 3. Nacimiento loam varies between a sandy loam and a clay loam depending where sample is taken.

Soils Map, p. 21. The U. S. Department of Agriculture Soil Survey shows broad delineation of soil series. This is a schematic broad informational map, as are all the maps in this report. More specific maps and data are available in our files.

Surface Hydrology Map, p. 24. Back Springs will be included in the final report. Lost Garner Lake has been cleaned out by our maintenance crews.

The Problem of Scarred Landscape, p. 29. This particular section discusses scenic values and does not discuss other environmental effects.

Resource Management Plan - Introduction, p. 35, No. 1. We agree that bare granitic soils erode when gradients are steep and when long slopes are not drained properly, but we do not agree that all granitic soils should not be used.

Introduction, p. 35, No. 2. Long Ridge Trail was required many years ago to be a firebreak by the then State Division of Forestry. Later, motorcycles used this as a trail. It is now closed. This is probably the worst example of accelerated soil erosion on the project and has served as a valuable lesson.

The project has been successful, if you measure user benefits and the correctly constructed and functioning user facilities and mitigation measures.

p. 36, paragraph 1, "Potentially harmful". In most situations we agree that it is harmful. The text will be worded differently.

p. 36, paragraph 1, lines 7-9. Some of the hillclimbs and trails have been closed. A Resource Management Program will implement the Resource Management Plan. This program will include monitoring erosion, mitigation measures, and closing areas temporarily or permanently if necessary.

Management of Recreational Resources, p. 40-41. See previous answer.

Management of Natural Resources, p. 42.

3. Rest and Rotation. We believe that rest and rotation of slopes is better than leaving a bare eroded slope open to more mechanical erosion. The closing of an area will also usually include rehabilitation and revegetation besides rest. The clay soils in particular have responded well to this process.

5. Rehabilitation of Badly Eroded Soils. This is a good suggestion and should be a part of the resource management program.

General Development Plan Map, p. 57. The three hillclimbs which lie to the west of the San Andreas fault in the lower ranch area are not included in the General Development Plan. The six that are shown on page 57 will be closely monitored and managed as necessary.

Bibliography. This will be expanded in the final report.

Response to Dr. Howard G. Wilshire

I. General Remarks. The Final General Development Plan, Resource Management Plan, and Final Environmental Impact Report will be improved because of the CEQA review process. The suggested policies and safeguards you suggest (A. standards, B. techniques, C. monitoring) are worthwhile suggestions.

II. General Development Plan.

A. Specific Policies, etc. We agree that soil conservation techniques are needed, but we do not feel they belong on the General Development Plan map on page 57. The Surface Hydrology map, p. 24, Figure 12, shows some of the catchment basins. The Resource Management Plan, pages 35-44, discusses erosional control and rehabilitation measures.

B. The Acquisition Recommendation. An environmental document will be necessary before the Martin Ranch can be acquired. If the Martin Ranch is acquired, off-road vehicle facilities would be carefully designed in order to avoid unacceptable erosion.

Catchment Dam on Bird Creek. This probably would not be feasible because of safety and spillway requirements. Floods occurred in 1935, 1937, and 1955. The Department would rather prevent sediment from entering Bird Creek.

III. Correction of Existing Problems. We do not agree that the aims and goals which you cite are contradictory. We do believe that existing erosion, whether from new or old areas, mechanically induced by motorcycles or by other means such as past fires, livestock, mining or logging, need to be corrected. Enlightened motorcycle users realize that the life of the project would be shortened if measures were not taken. A Resource Management Program will implement the resource management policies in this report. We agree that the Soil Conservation Service, U. S. Department of Agriculture, should be consulted.

Specific Comments

p. v. See response to Robert H. Webb for p. v. The other hillclimbs and steep trails will be treated as necessary. See response to Robert H. Webb for p. 36, paragraph 1, lines 7-9.

We agree that slope length and gradient of slopes are critical. We agree that the user nomenclature of slopes is not important regarding erosion control, but nomenclature is important regarding types of use by off-road vehicle recreationists.

We agree that most competitive events west of the San Andreas fault, on granite-derived soils, and in the lower ranch should be on near level ground. There are, however, areas where soils are derived from limestone and dolomite where user events could take place on steeper grades.

p. 9. This is a schematic map showing major existing facilities. Space does not allow all user facilities such as trail or slope use to be shown. Use areas adjacent to Cienega Road have been closed.

p. 12. Patrol rangers at Hollister Hills SVRA have been trained to ride motorcycles and patrol the entire unit. They have police powers and first aid and paramedic training. The boundary lines of the unit and areas closed due to erosion are well marked. The 1978/79 Capital Outlay budget request includes fencing for visitor safety, to designate off-limit areas, and to keep livestock out of the unit.

p. 19. Sources of geologic information will be cited in the final report.

p. 20 and 21. Source of soil information is U. S. Department of Agriculture. See selected references.

p. 23. Slope information was compiled by Department staff.

p. 24. See comments to Department of Conservation, question 7.

p. 25. Sources of vegetation information will be cited in the final report. Department staff developed vegetative data.

p. 26. This map, Figure 14, does not show all vista points or enclosed landscapes such as in North, Azalea and Bird Creek Canyon. The map would be too cluttered.

p. 29. If the Martin Ranch were acquired, the same visual relief would be preserved. See above comment for General Development Plan, B, the acquisition recommendation.

p. 30. Not all areas that have erosion problems are closed. Under the Resource Management Program many of these will be rehabilitated and used again by motorcyclists before conditions get as serious as areas such as Long Ridge Trail. Below is a list of areas which were opened and closed by the former owner. These are:

1.	Big Rock Garden Hill climb	75% revegetated
2.	Almaden Hills Racetrack	100% revegetated
3.	Area 3, Upper Ranch	100% revegetated
4.	Cottonwood Canyon	100% revegetated
5.	Hillside above Bird Creek	100% revegetated
6.	Hillside opposite Competition Hill	100% revegetated
7.	Kaiser Quarry	75-100% revegetated
8.	Bee Camp Hillclimb	75% revegetated
9.	Pass Hillclimb	90% revegetated
10.	Middlefield Road Hillclimb	90% revegetated

Estimates by Howard Harris 11/77

We do not agree that the areas along Cienega Road are undergoing accelerated erosion as seriously as implied.

p. 35, Resource Management Plan, Introduction, Item 1. See response to Robert Webb. Users like the varied topography and the fact that sandy soils can be used during the wet season when the clay areas become unusable.

Item 2. This was an area used by ORV's when the State acquired land from private enterprise. Many facilities and erosional control measures such as catchment basins were in existence. Because of its use, many other areas have been spared the consequences of unchecked erosion. Quail and deer have survived and prospered with ORV use.

Item 3. Catchment basins allow little or no material to transfer to neighboring properties. Neighbors signed a petition approving the ORV area.

p. 35, paragraph 2. We believe that granitic soils on level ground or low grades of short stretches can be used.

p. 36, paragraph 1. Changes will be made in the text.

p. 37, paragraphs 3 and 4. These paragraphs are statements of fact and are not meant to justify or condemn the project.

p. 38, paragraph 1. Yes, both.

p. 38, paragraph 3. We generally agree. There are sites west of the fault which are on soils derived from limestone or dolomite which can withstand use on steep slopes with eroding.

p. 38, paragraph 4. Your point is well taken. This will be considered by our operational forces and Resource Management Program.

p. 38, paragraph 5. We agree that mechanical erosion is a contributing factor to the overall erosion problem. The text will be changed.

p. 39, paragraph 1. "Successful" is used in regard to user satisfaction.

p. 39, paragraph 2. These are desirable suggestions and will be implemented in the Resource Management Program.

p. 40, item 2. We agree that trail gradients should be gradual in order to prevent undue soil loss.

p. 41, item 7. The USDA report you cited will be reviewed. We feel that the surface seals do not exist on off-road vehicle trails because of the continued mechanical use. Also, when gullies form on trails, users tend to use the outside of the trail and thus destroy vegetation and expose more soil to the possibility of erosion. We will continue to groom and maintain trails by grading and proper drainage control.

p. 41, item 8. We agree that the problem of runoff concentration causes additional problems. Dissipators or piping runoff directly into catchment basins as you suggest would do much to solve this problem.

p. 41, Allowable Use Intensity. We agree that during extreme wet conditions or dry fire conditions, sections or possibly all of the unit may need to be closed temporarily. Wildlife coexisting with ORV use has propagated and flourished well, and closures during mating seasons seem unnecessary. See section on Wildlife, p. 28 in report.

p. 42, item 2. Refer to question 7, Department of Conservation, Division of Mines and Geology comments.

p. 42, item 3. See response to Robert Webb.

p. 42, item 5. Construction of permanent survey stations to monitor soil erosion is an item in the 1978/79 Major Capital Outlay Budget Request, Chappie-Z'berg Off-Highway Fund. A program to fertilize and reseed eroded areas is also a budget item. Some has already been donated and applied by the State Department of Forestry.

p. 43, item 6. We agree that Long Ridge Trail is the worst example and should be one of the high priority areas for rehabilitation.

p. 43, Vegetation and Wildlife. See response for p. 41, Allowable Use Intensity. We agree that erosional debris should not be spread over unused terrain. This will be one of the goals of our management program.

p. 43, Geological Values. The text will be changed.

p. 44, Anti-Pollution, item 1. We agree that water quality should be monitored. Some dissolved material is combined with clay. Additional filter methods may be necessary. The amount of material spilling onto downstream areas appears negligible. Downstream owners have not complained. We suspect that they are more concerned with toxic chemicals and coliform from other areas in the watershed.

p. 44, item 2. Admittedly, checking vehicle exhaust emissions would be difficult without special equipment. Mufflers and spark arrestors certainly can and are checked upon entrance into the unit.

p. 48, Carrying Capacity. See response to p. v.

p. 55, paragraph 1. Erosion has taken place since and prior to motorcycle use on the lower ranch. However, the former owner reports that the most serious erosion took place on and from the old ranch roads, logging roads, mining roads, and fire roads over 20 years ago after a fire.

p. 55, paragraph 5. This is a statement of fact.

p. 56, paragraph 1. Funding measures are better handled in the text than on the map. Page 57 is a general development plan and not an erosional control plan.

p. 58, Trails, Tracks, Hillclimbs, and Courses. We do not see a contradiction between this paragraph and the soil management plan on page 42. The text will make this clearer for the final report.

p. 58 Fencing. See response to p. 12.

p. 60, paragraph 1. See response to General Development Plan, B, the acquisition recommendation.

p. 60, paragraph 2. See response to Catchment Dam on Bird Creek.

p. 61, paragraph 3. It is not certain what is being referred to on page 61.

Environmental Impact Report

p. 66, Significant Environmental Impacts. We agree that in Figure 17 some of the 1's or 2's should be 3's. This will be changed in the final EIR.

p. 66, Unavoidable Significant Impacts. A discussion of short-term and long-term effects, will be discussed in the text.

We agree that erosion is a process and not an effect. We can elaborate on the effects of accelerated eriosion as suggested, including the loss of soil and watershed, and the effects on vegetation due to rill erosion, gully erosion, and sheet erosion.

p. 69, Mitigation Measures.... Mitigation measures due to soil loss by erosion are discussed on pages 42 and 43 in the Resource Management Plan, and it was felt that it was not necessary to repeat them here. Other measures to reduce soil erosion are available in reports which were used in preparation of the Resource Management Plan. These include papers by R. H. Webb, et. al.

Quantitative measurements and acceptable soil losses will need to be established. A Resource Management Program is being implemented. One of the first items has been to build catchment basins to effectively control flow of eroded material onto adjacent private properties.

We agree with Dr. Wilshire on his suggested additions to page 68, Figure 18. The text for pages 69 and 70 will be revised, and your suggestions will be considered in writing the final EIR. Measures for mitigation of possible wildlife losses should be included, possibly under a new letter "I".

Wet season closure protection would be one mitigation measure under A.

p. 69, C. We agree that the statement on revegetation could be more specific.

p. 70, D. We feel this is a serious mitigation measure.

p. 70, F. Most of the trails facing Cienega Road have been closed and revegetation will soon be accomplished, rendering this area more esthetic.

p. 71, The Relationship Between Short-Term Uses.... The text will be changed to be more objective.

Statement relating to cumulative and long-term effects will be included in the discussion.

p. 71, Significant Irreversible.... We agree that the word "only" should be removed and that "watershed" should be included. This paragraph will be rewritten.

Mr. Wilshire's name will not be listed as a Sierra Club Advocate (page 72), a consultant (page 72), or a motorcycle user (back inside cover). He will be listed as a private interested citizen.