

Indian Grinding Rock State Historic Park

GENERAL PLAN



June 1984

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

DEPARTMENT OF PARKS AND RECREATION

STATE PARK AND RECREATION COMMISSION

P. O. BOX 2390, SACRAMENTO 95811



Resolution 51-83
adopted by the
CALIFORNIA STATE PARK AND RECREATION COMMISSION
at its regular meeting in Sacramento on
July 8, 1983

WHEREAS, the Director of the Department of Parks and Recreation has presented to this Commission for approval the proposed General Plan for Indian Grinding Rock State Historic Park;

WHEREAS, this reflects the long-range development plans as to provide for the optimum use and enjoyment of the unit as well as the protection of its quality;

NOW, THEREFORE, BE IT RESOLVED that the State Park and Recreation Commission approves the Department of Parks and Recreation's General Plan for Indian Grinding Rock State Historic Park's preliminary dated March , 1983, 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.

INDIAN GRINDING ROCK STATE HISTORIC PARK

GENERAL PLAN

June 1984

George M. Deukmejian
Governor

Gordon K. Van Vleck
Secretary for Resources

Wm. S. Briner
Director
Department of Parks and Recreation

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INTRODUCTION

Indian Grinding Rock State Historic Park (Chaw'se) is a unit of the State Park System containing significant cultural artifacts, and is a sacred place for ongoing cultural practices of the local Miwok people.

In the Miwokan language, Chaw'se refers to the grinding holes where acorns, seeds, and other items were processed. Since the park contains one of the largest grinding rocks in California, Chaw'se is used by many as the name for the park. People use the name interchangeably to refer to the park as a whole, as well as to the grinding rock specifically.

Purpose of Plan

The purpose of this General Plan is to provide guidelines for management, interpretation, and development of Indian Grinding Rock State Historic Park, in accordance with its classification and approved Declaration of Purpose.

This plan is the first for this unit in response to the mandate of the public Resources Code, which requires that a general plan be submitted to the State Park and Recreation Commission for its approval before any major work takes place. In addition, the report includes an Environmental Impact Element, conforming to requirements of the California Environmental Quality Act.

The objectives of the plan are:

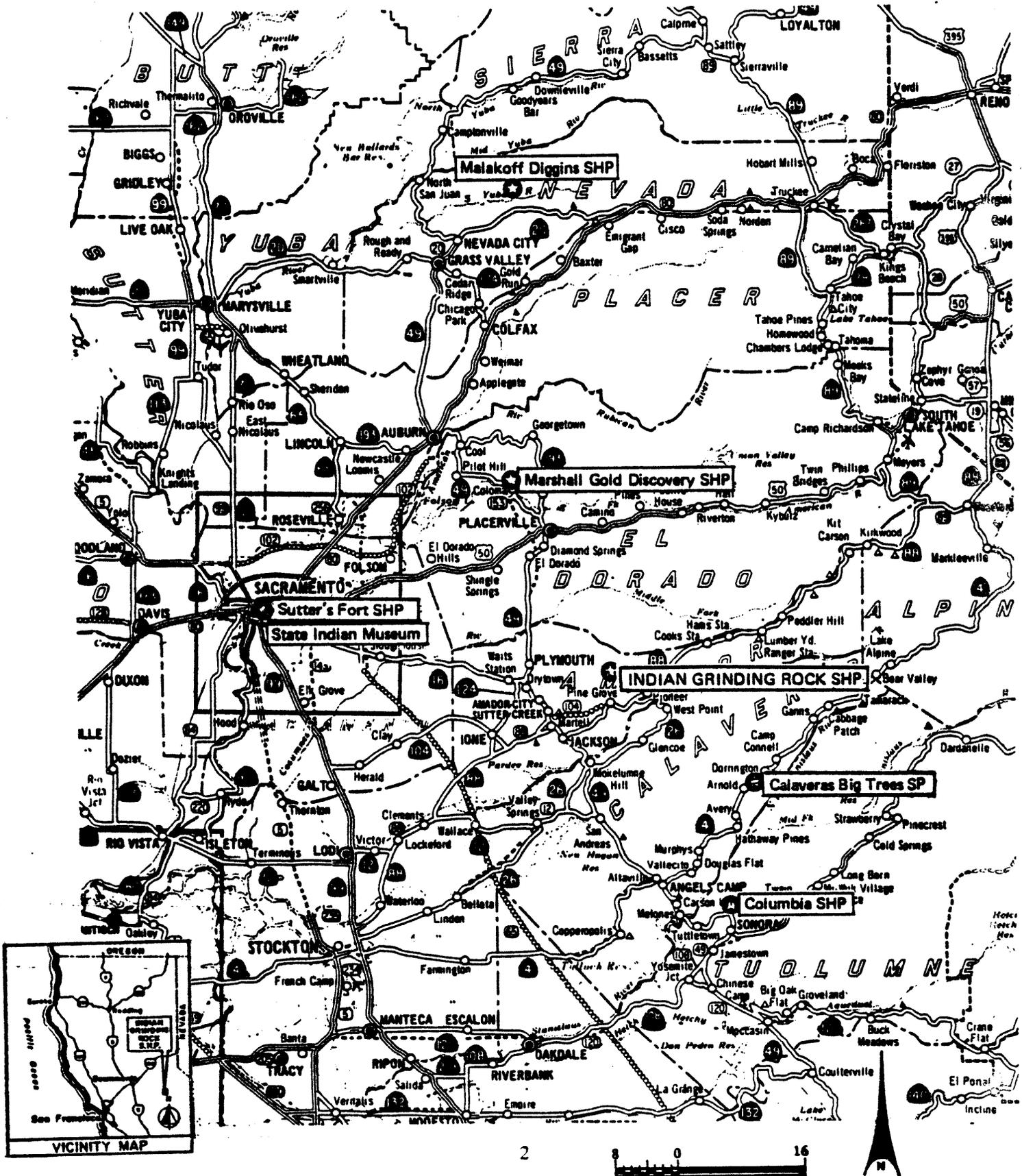
1. To identify the cultural, natural, and recreational resources of the historic unit;
2. To establish policies for interpretation, management, and resource protection;
3. To determine visitor activities and land use that are compatible with the purpose of the park, the available resources, and the surrounding area;
4. To recommend park developments;
5. To determine the potential environmental impact of visitor activities and developments; and
6. To provide an informational document for the public, the legislature, department personnel, and other government agencies.

Location

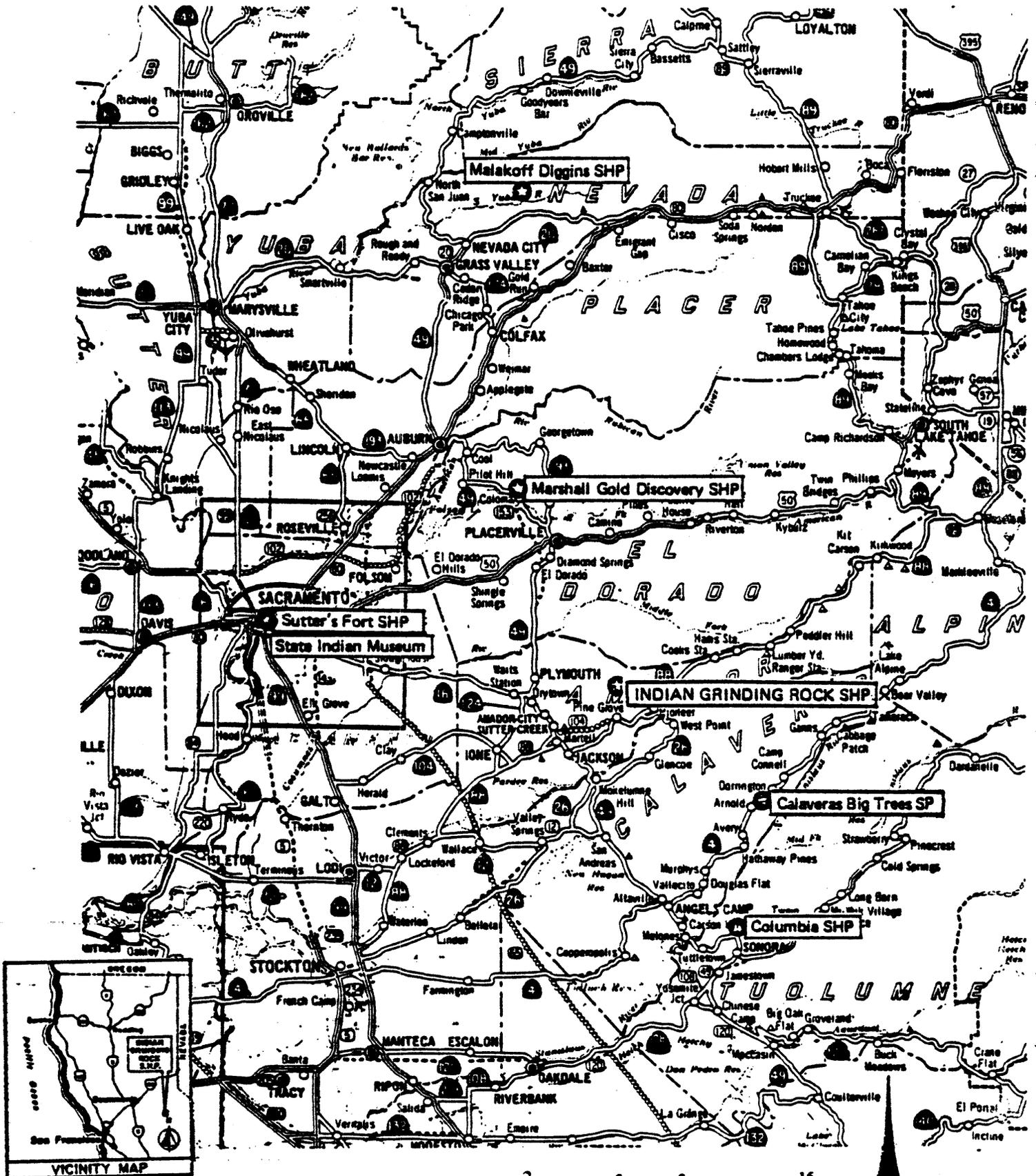
Indian Grinding Rock State Historic Park (Chaw'se) is a 54.6-hectare (135-acre) unit of the State Park System. Chaw'se is at an elevation of 730 meters (2,400 feet) in Amador County. Located in the Sierra Foothill and Low Coastal Mountain Landscape Province, Chaw'se lies 2.1 kilometers (1.3 miles) north of the community of Pine Grove, on a paved county road.

Nearby State Park System units include Calaveras Big Trees State Park, about 34 kilometers (21 miles) to the southeast; Columbia State Historic Park, about 48 kilometers (30 miles) to the southeast; and Marshall Gold Discovery State Historic Park, about 48 kilometers (30 miles) to the north. The department's Area Office for Chaw'se is located at Calaveras Big Trees State Park.

STATE AND REGIONAL LOCATION MAP



STATE AND REGIONAL LOCATION MAP



RESOURCE ELEMENT

The purpose of a Resource Element is to establish the specific long-range resource management objectives and policies necessary to protect and perpetuate the resource values of this unit of the State Park System. The Resource Element for Indian Grinding Rock State Historic Park (Chaw'se) identifies specific resources, and their sensitivities and physical constraints, and establishes department guidelines for acceptable levels of use and development with respect to these values. The major programs that need to be developed to protect and perpetuate the cultural and natural resources of Chaw'se are identified and supported with appropriate sections from the Public Resources Code; the Policies, Rules, Regulations and Orders of the California State Park and Recreation Commission; and the Resource Management Directives for the California Department of Parks and Recreation.

Summary of Resources and Evaluations

Natural Resources

Topography

Indian Grinding Rock State Historic Park lies on the lower slopes of the Sierra Nevada in the central Mother Lode. At an elevation of 700 - 790 meters (2,300 - 2,600 feet) above sea level, it is in a region of moderate relief. The elongated north-south trending range has gradually descending western slopes that are at times deeply cut by rivers running east-west.

In a gentle hollow almost surrounded by the typical coniferous forest of this elevation is a prairie of about 16 hectares (40 acres) where the grinding rock is exposed.

Climate

Indian Grinding Rock State Historic Park typifies the Mediterranean-type climate of the Sierra Nevada foothills and lower mountain slopes, which is characterized by warm, mostly dry summers and cool, wet winters, with 76-102 centimeters (30-40 inches) of annual precipitation. Although most of the winter precipitation is in the form of rain, snow accumulates to a depth of several inches four or five times during the winter season. The prevailing wind is from a westerly direction throughout the year, and wind speed averages less than 16 kilometers (10 miles) an hour.

Hydrology

Two branches of a small creek (Else Creek) flow through the unit during the wet season. Else Creek is the name applied to this water course on historic Amador County plat maps.

The south branch flows only intermittently during periods of precipitation. A short arm along its lower reaches cuts into a slope and flows for longer periods. The northernmost (main branch) flows almost all year, except in dry years. Else Creek drains into Grass Valley Creek near its confluence with Sutter Creek, west of the unit.

The main branch of Else Creek has five small reservoirs located along its upper reaches within the unit. The date of their construction is not known. The water quality of these reservoirs is not known, nor has the quality of the creek been tested. A minor seasonal tributary to Else Creek, located in the northwest portion of the unit, has a series of three small reservoirs, which usually dry up in the summertime. During heavy rains, these dams could overflow, possibly affecting downstream structures. Washouts around the dam structures are also possible.

The south branch no longer flows along its normal course in a swale at the southern edge of the prairie. It has been diverted to flow above the swale in a channel that was constructed where the prairie meets the forest edge beside the campground. The reason for this diversion is not known. During periods of heavy rainfall, runoff will break out of the ditch and flow back into the swale and across the prairie toward the ceremonial roundhouse.

Since recent years (1940-1980) have been relatively dry in California, Else Creek, which flows through the prairie, appears to be fairly well-channeled. However, if weather patterns should change (as is historically documented), increased creek flows could result in flooding of the prairie and increased streambank erosion. A 6- to 8-foot drop in the creekbed along the lower extent of the main fork, possibly caused by efforts to mine the streambed, is a key feature to monitor for base level modifications and bank erosion.

The Else Creek watershed is approximately 19 percent of the total Grass Valley Creek watershed. The sub-watershed that Else Creek originates in is approximately 298 hectares (736 acres). The Grass Valley Creek watershed is approximately 1,556 hectares (3,846 acres, or about six square miles).

A deed restriction gives an unspecified easement for water from an existing spring, together with an existing collection box and one-inch pipe. According to the deed, this facility is approximately 400 feet east of the southernmost corner of the property acquired from Awbrey (the Southeast 1/4 of the Southwest 1/4 of Section 27, T 7 N, R 12 E, Mount Diablo Base and Meridian).

Groundwater quantity and quality are not well known, but groundwater appears to be in rather short supply.

Restricting or changing the normal flow of water through the unit may have negative impacts on water retention and on its availability for plants and animals. Conversely, unnatural placement of vegetation, such as for landscaping purposes, will result in a reduction of water for native, naturally occurring, vegetation. This competition could cause a stress on the native, naturally occurring vegetation, and could lead to the demise of some

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plants. Watercourse manipulation can also result in accelerated soil erosion and undercutting of vegetation. The ditch between the campground and prairie shows these problems.

Geology

Indian Grinding Rock lies on the western slope of the Sierra Nevada Range, in the western metamorphic foothill belt. The metamorphic rocks of the foothill belt represent pre-batholithic sedimentary rocks which are generally without fossils and, thus, very difficult to date.

The foothills west of the Sierra Nevada are composed of folded and faulted metasediments and metavolcanics which have been overlain by Tertiary volcanic conglomerates and tuffs, and intruded by the Cretaceous Sierra Nevada batholith and related plutonic surges. The thick sequence of very old metasedimentary and metavolcanic rocks is called the Calaveras Complex. These rocks represent the oldest rocks found along the western Sierra Nevada. The western margin of the Calaveras Complex (west of Indian Grinding Rock) is abruptly marked by the Melones fault zone, which juxtaposes the Calaveras Complex rocks on the east with the Mesozoic rocks of the Mariposa Formation on the west. The Mariposa Formation may be 100 million years younger than the Calaveras Complex.

The most outstanding lithologic feature of Indian Grinding Rock State Historic Park is the grinding rock itself. This large slab, variously called limestone or marble, was probably formed off the edge of the continent in a tectonically unstable marginal basin. Originally, the rock was limestone, but technically it is marble, because it has undergone metamorphosis. The rock is the result of the accumulation of organic debris (shell fragments, foraminiferal tests, broken reefs, and limey sands and muds). Because of the metamorphism, recrystallization, and tectonic history of the area, none of the original fossil components have been preserved. The grinding rock with the numerous bedrock mortars is large -- 53 meters (175 feet) by 25 meters (82 feet). It trends north-south, as do the other isolated limestone bodies of the Calaveras Complex. Several other small (3 meters by 2 meters) marble outcrops occur near the major slab.

The mapped fault nearest to Indian Grinding Rock is the Melones fault, approximately 13 km (8 miles) to the southwest. The fault has not exhibited movement during the last 2 million years, and is considered inactive. No mappable folds or faults occur in the unit.

The land on which Indian Grinding Rock is located was once deep under an ancient ocean which extended across northern California, Nevada, and Idaho. Oceanic organic deposits, volcanic extrusions, and fine-grained clays and silts accumulated to great thicknesses over millions of years in an unstable oceanic basin between an oceanic volcanic arc and the ancient continent. This sedimentary basin accumulated great thicknesses of sediments from the edge of the continental shelf, from the accumulation of oceanic organisms, and from extrusions of the volcanic island arc. Periodic slumping and sliding of the relatively soft sedimentary debris from the continental shelf to the deeper basin resulted in the chaotic, broken-up nature of the ancient sedimentary rocks.

Because of the gentle topography, the enclosed basin nature of the prairie, and the geological quiescence of the area, there are few, if any, geological constraints or sensitivities. The grinding rock itself, as well as the other marble outcrops nearby, are subject to weathering -- both chemical and mechanical. Rain and the accumulation of organic debris combine to dissolve the calcite crystals making up the rock. The acidity of oak leaves, which pile up on the rock and in the mortars, contributes to chemical weathering around and in the mortars and obliteration of the petroglyphs. Due to the granular nature of the marble, it breaks apart readily once fractures and joints are developed.

Soils

Detailed information on the soils of Indian Grinding Rock State Historic Park is contained in the Inventory of Features. The principal source of soil information for the Inventory of Features comes from the United States Department of Agriculture, 1965, Soil Survey -- Amador County, California. These data are summarized below.

There are four soil units at Indian Grinding Rock, each with its own distinctive characteristics and properties. These soils have limitations for most uses. The characteristics of these soils almost preclude the use of conventional septic tank absorption fields. The bottomland soil, called Loamy Alluvial Land, has a slight erosion hazard. The principal problem with the bottomland soil is slow runoff and moderate permeability. These conditions cause the soil to remain soggy for long periods. Problems with soggy soil have been experienced on the flatland soil in conjunction with past development, specifically in the Roundhouse. The soils of the hills surrounding the flatlands have a moderate to severe erosion hazard. These soils are in the Josephine, Mariposa, and Sites Series. The hill soils are well-drained, moderately permeable, and moderately fertile. The principal problem with the hill soils is their susceptibility to erosion.

Plant Life

Indian Grinding Rock lies in the Sierra Floristic Region (Stebbins and Major 1965), which is in the California Floristic Province (Raven 1977). The Sierra Floristic Region includes the major forest belt and the cooler and more moist plant communities.

Five separate communities occur in the unit. These are: ponderosa pine forest; pine-oak woodland; riparian forest; meadow; and grassland.

The Ponderosa pine forest is at the lower fringe of its range, and occurs on the relatively cooler and more mesic north and east slopes in the southwest corner of the unit. The pine-oak woodland is a transitional community between the ponderosa pine forest and oak woodland. It occurs in the unit on warmer south- and west-facing slopes over relatively shallower soils. The riparian community, consisting of a creekside forest with well-developed understory trees and shrubs, as well as a low groundcover, is found for only a short distance along Else Creek from the western property line up to the campground on the south branch, and to a lesser extent, on the main branch. Meadow and grassland dominate the central lowland portion of the unit, occurring on the most gentle (0-8 percent slope) terrain over deeper soils.

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Meadows occur on water-saturated soils along the main branch of Else Creek and in areas of seeps and springs. These areas remain moist well into the summer, whereas the grassland area soils dry in May, after the rainy season.

Several large valley oak (Quercus lobata) are in scattered groups throughout the grassland. Young seedlings can be found around some groups to 6 meters in height. Young valley oaks to 15 meters line much of Else Creek in the central grassland portion.

Ponderosa pine forest is a fire climax community sustained by periodic low intensity ground fires. The exclusion of fire at Indian Grinding Rock has resulted in an increase in shade-tolerant incense cedar (Calocedrus decurrens) and Douglas-fir (Pseudotsuga menziesii) in the understory of ponderosa pine (Pinus ponderosa) and black oak (Quercus kelloggii).

The pine-oak woodland and grasslands are also fire-adapted communities. Grassland is primarily an edaphic climax type, but is often maintained on peripheral sites by periodic fire or a disturbance such as grazing. Without fire, some shrub encroachment will likely take place.

Meadow is a stable or climax vegetation maintained by saturated soils during the primary growing season.

The ponderosa pine forest community is considerably less dense than the adjacent extensions of the community on land next to the unit. Wildfire or possibly some timber harvesting may have occurred here in the past 60 years.

The pine-oak woodland has recently had extensive clearing of manzanita (Arctostaphylos sp.). Adjacent extensions of the community outside the unit show a much denser stand of manzanita, which is over 3 meters in height. Such dense stands of manzanita are characteristic of disturbed sites in the yellow pine belt. It is likely that wildfire or possibly logging once cleared most of this area of major forest trees.

The grassland is composed mostly of alien species brought into the area and established by the pressures of domestic grazing. The recent curtailment of grazing in the unit has increased the chances for oak regeneration, and several young seedlings can be seen.

No state-listed rare plants are known to exist in the unit. The California Native Plant Society lists one plant on "List 4" (plants which are rare in California, but common outside the state) that occurs in the meadow area; this plant is a wedge grass (Sphenopholis obtusata var. obtusata).

The picturesque large valley oaks in the grasslands have esthetic and interpretive value. The largest have an estimated age of 300 years, and are particularly sensitive to changes in their environment. Any disruption of the soil or subsurface water conditions near them could lead to their demise.

Non-native plants dominate the grassland community. Other communities consist almost entirely of native flora with occasional exceptions such as: tree of heaven (Ailanthus altissima); walnut (Juglans sp.); and apple (Malus sp.).

Animal Life

Animal life in this unit includes those found in the Californian Wildlife Region (Brown and Lawrence 1965), overlapping those found in the Sierra Nevada Wildlife Region (Brown and Livezey 1962).

The unit's small size restricts the occurrence of numerous larger-mammal populations. However, as more development occurs on the presently unoccupied lands surrounding the unit, lands of this historic park will undoubtedly become more important to animal life of the area. The distribution and retention of water will have a critical effect on animal life populations.

The prairie communities, covering 50 percent or more of the unit, are especially important to the many birds found in the unit as a source of many insects on which birds and other animals feed. Valley oak forest and savanna are preferred by the acorn woodpecker (Melanerpes formicivorus).

The California ground squirrel (Otospermophilus beecheyi) is the most noticeable mammal found in the unit. Its numbers undoubtedly increased dramatically during the years when the prairie and savanna were being grazed by cattle. Conversely, the population can be expected to decline now that the area is not being grazed, as the grasses become thicker and taller (the grazing lease ended February 1, 1980). Other mammals, including the pocket gopher (Thomomys bottae), black-tailed hare (Lepus californicus), and deer (Odocoileus hemionus columbianus), are often seen.

The riparian habitat and the associated valley oak forest contain all the necessities of animal survival; namely, food, water, and shelter. It is, therefore, very important to the animal life of the area.

Riparian habitat occurs only in narrow strips along Else Creek, and occupies only about 5 percent of the total unit. Else Creek intersects the prairie in the central portion of the unit. Because of the relatively flat topography through which the stream flows, it is fairly slow moving. It is also fairly shallow and warm. This probably accounts for the lack of fish in the creek. Conditions are good for an abundance of mosquitos and other insects in the several reservoirs that exist along the creek. Frogs, birds, and bats feed on the insects in these reservoirs. Mammals roam into this riparian zone to drink, eat, and find shelter. The garter snake (Thamnophis spp.) is also probably present here.

The Pine-Oak Woodland occurs over about 25 percent of the total unit area. Pockets more characteristic of the mixed conifer forest community also occur in this community on cooler, moister slopes. Fingers of prairie penetrate the area and create many ecotones (vegetation edges) which are very important as wildlife habitat. The greater the diversity of vegetation in an area, the greater will be the variety of wildlife. Typically, nearly all of the animal species listed in the Inventory of Features will be associated with this community.

The Mixed Conifer Forest makes up about 20 percent of the total unit area. This forest is also interspersed with some black oak and manzanita stands, and much of the forest floor is covered with bear mat (Chamaebatia foliolosa).

Cover is an important habitat necessity in this vegetative type. Animal life, though probably less abundant in this plant community, will include many species shown in the list in the Inventory of Features.

Recent modifications to the lands in and around the unit have adversely affected wildlife habitat since the 19th century. Because much of the area around the historic park is built up with summer homes or permanent residences, important representatives of the fauna have undoubtedly been displaced or eliminated through habitat changes. Grazing has also altered the plant life and animal life associations. Without these influences, the pristine fauna would probably include more of the large mammals wandering in and around the unit.

No rare, endangered, or threatened species of animal is known to exist in this area.

Cultural Resources

Native American cultural resources from various time periods are known at Chaw'se. The most visible Native American resource is a marble outcrop of the Calaveras Complex, which contains at least 1,185 mortar holes and 363 petroglyph designs (Payen 1963). The rock and four surrounding cultural loci are registered with the State Office of Historic Preservation as Ca-Ama-14. Modern Native American architecture includes the 60-foot (18.3-meter) diameter roundhouse constructed by an Indian crew with departmental assistance in the fall of 1973 and the spring and summer of 1974 (Dunn 1973). Other structures include a gambling house, a large cedar bark-covered ramada, several small conical bark houses and a granary near the grinding rock, five large conical bark houses grouped on the west side of the unit away from the other structures, an Indian football field, and two generally rectangular vertical-sided structures used as refreshment stands. Other structures in the historic park include the two-story cultural center, a mobile home and associated improvements, and various campground improvements in the southern portion of the unit. The Scapucino house, a 19th-century house with a variety of surrounding modifications, sits in the northeast corner of the unit.

Native American Resources

Ca-Ama-14 was first recorded as Ama-1 by Roust in 1956. He noted "several hundred mortars, petroglyphs, manos, cobbles, pestles, triangular flake basalt point, obsidian flakes, core chopper, ... metates ..." Between March 21 and 31, 1961, Louis A. Payen and David S. Boloyan conducted fieldwork at the grinding rock and in the surrounding area. Payen recorded most of the petroglyphs on the limestone outcrop using a technique of nightlighting and marking, and returning the next day to finish the recording of the petroglyphs. He identified the 363 glyph groupings, with each one of the glyphs containing one or more of 14 identified design elements. His study in 1963 is a landmark study of one of the most complex known Sierran petroglyphs (Payen 1963). Payen also evaluated the surrounding midden sites. He noted that the midden on the knoll adjacent to the rock on the west probably is a village site. He also noted that there is a small midden with surface artifacts "about 50 yards to the north across a small drainage". Payen wrote that the village area had been cultivated and partially developed as a

homesite by the Scapucino family and that heavy visitor use around the rock had resulted in considerable casual artifact collection. In May 1976, departmental staff of the department's Cultural Heritage Section, Resource Preservation and Interpretation Division, surveyed the proposed site for the new cultural center at Chaw'se. In August 1976, cultural heritage staff went to Chaw'se with the purpose of re-recording the archeological sites. Reevaluations in 1981 of the so-called midden areas to the north side of the creek revealed that there is little or no actual midden associated with these site loci, and that these consist almost entirely of surface flake scatters. There are, on the same side of the creek as the grinding rock, two known midden areas.

Native American History

The chronology of human activity in the Sierra Nevada may date back more than 10,000 years, although the earliest known dates of archeological sites cluster slightly earlier than 8,000 years before present (B.P.) (Davis and Shutler 1969; Moratto 1981). The area around Indian Grinding Rock State Historic Park was used by Native Americans for hunting, gathering, food processing, and residence and ceremonial purposes.

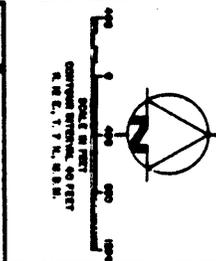
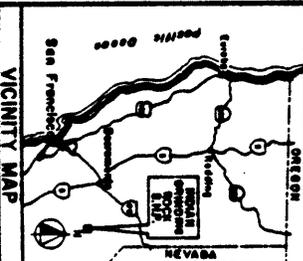
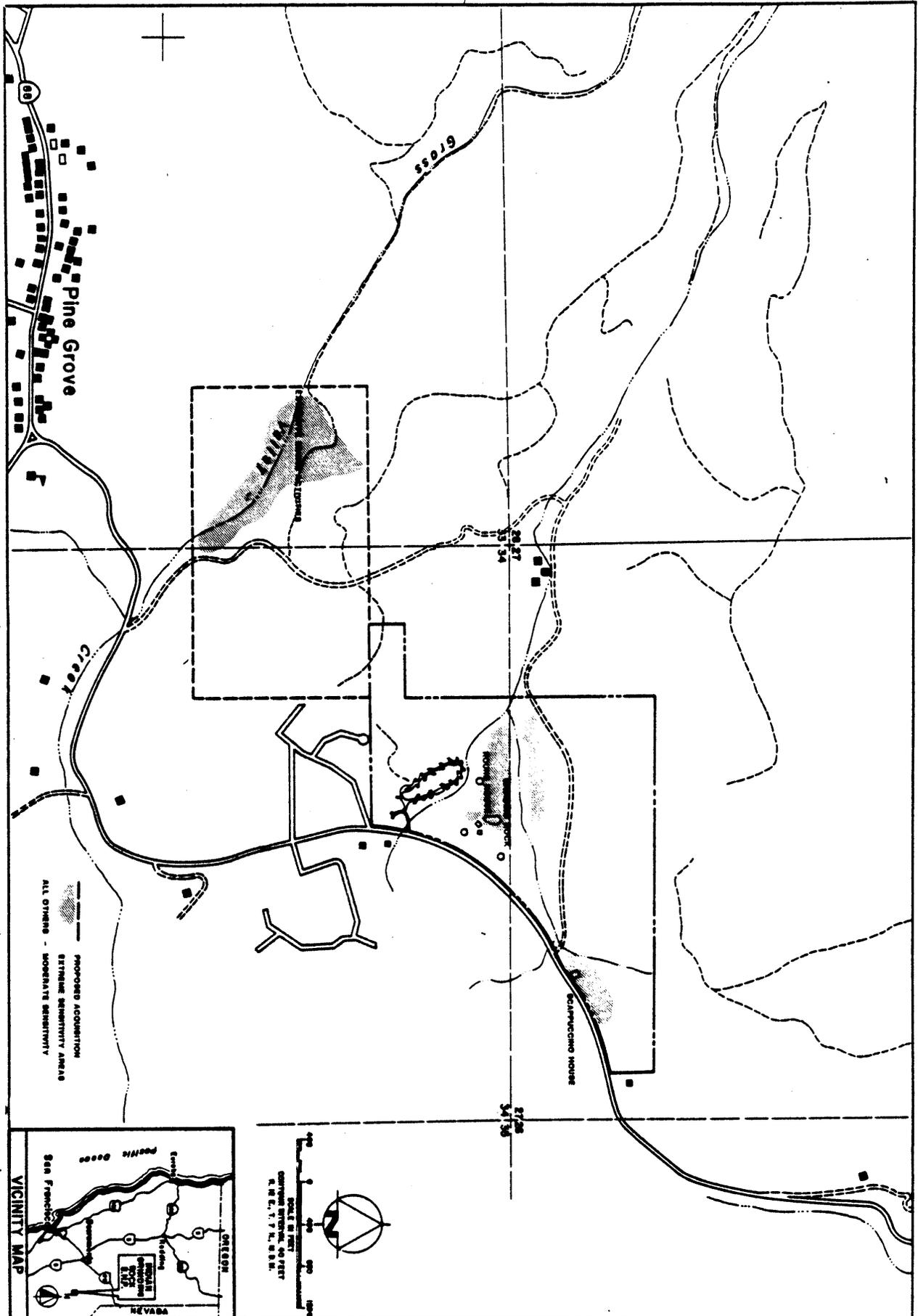
The local Native American group of Indian Grinding Rock State Historic Park (Chaw'se) and its environs is the Northern Sierra Miwok (Barrett and Gifford 1953; Kroeber 1925; Levy 1978).

The Miwok belong to the large Penutian language stock which also includes the Wintun, Maidu, and Yokuts. The Miwokan language can be divided into western and eastern. The western division contains the Coast and Lake Miwok. The eastern division contains the Bay (Saclan), Plains, and Sierra Miwok. Sierra Miwok is further divided into northern, central, and southern languages (Merriam 1907).

The Sierra Miwok occupied the western slope of the Sierra Nevada from the middle reaches of the Fresno River on the south and Madera County, north to the course of the Cosumnes River in Sacramento and El Dorado Counties. The northern Sierra Miwok generally occupied the Mokelumne and central Calaveras and Cosumnes River drainages (Barrett and Gifford 1933).

Miwok Ethnography

The territory of the Sierra Miwok is rich in a large variety of floral and faunal resources. In the foothills, an oak woodland system supports two species of oak and one species of pine, numerous seed-producing grasses, and various forbs and herbs. It is also a rich habitat for deer and rabbit. The second largest ecological zone of Sierra Miwok territory is the Montane forest. The Montane forest is divided into two systems, lower and upper. The lower system is primarily a ponderosa pine forest containing ponderosa pine, black oak, sugar pine (Pinus lambertiana), incense cedar, and white fir (Abies concolor). At an altitude of about 600 to 900 meters (2,000 to 3,000 feet), the lower Montane grades into the upper Montane forest, which is composed primarily of white fir with some sugar pine, cedar, and occasional black oak



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and ponderosa pine. The third vegetation community within Sierra Miwok territory is chaparral. Chaparral-type vegetation communities occur in a broken belt in the upper foothills, and as patches throughout the Montane forest. Members of the chaparral community include scrub oak (Quercus dumosa), interior live oak (Quercus wislizenii), manzanita, and ceanothus (Ceanothus sp.) (Kunit and Calhoon 1974).

Economically, the oak woodland produces plentiful acorns, pine nuts, grass seeds, and various herbs and greens. The lower Montane forest produces sugar pine nuts, ponderosa pine nuts, and black oak acorns, along with numerous herbs and cedar bark used for structure siding. The upper Montane forest generally produces the same nuts and herbs as the lower Montane forest -- however, to a lesser degree (Theodoratus 1980).

Faunal resources available to the Sierra Miwok included: tule elk (Cervus nannodes) and pronghorn antelope (Antilocapra americana) at lower elevations, and mule deer throughout their territory. Many species of small game were hunted or snared, with jackrabbit (Lepus sp.) and cottontail (Sylvilagus sp.) being the favorites. Principal birds hunted were valley quail (Lophortyx californicus) and mountain quail (Oreortyx pictus). Numerous fish were also taken with king salmon (Chinook salmon: Oncorhynchus tshawytscha), silver salmon (Coho salmon: Oncorhynchus kisutch), and trout (Salmo sp.) being the most sought after (Barrett and Gifford 1933).

Miwok hunters used the bow and arrow, and a variety of snares and nets. The Sierra Miwok bow was about 3 feet in length and 2 inches in width at the center. It was made from cedar, California nutmeg (Torreya californica), or western yew (Taxus brevifolia). It had a sinew backing for spring and resiliency. The string was made either of milkweed (Asclepias sp.) fiber or sinew, or a combination of both (Bates 1978). Miwok made a variety of different arrows, depending on use. The most common types were the small hunting arrow and the "war" arrow. The small hunting arrow consisted of a wood or reed shaft with the arrowhead attached directly to it with sinew; the "war" arrow consisted of a shaft, a foreshaft, and an arrowhead. In theory, the entire head and foreshaft of the hunting arrow would enter a large game animal and the glue would dissolve, leaving the foreshaft and head inside the animal to continue to work and cut. If the shaft were not broken during the hunting shot and the foreshaft separated from it, it would have been possible to retrieve the shaft and affix another foreshaft to it for subsequent use (Barrett and Gifford 1933; Levy 1978).

The Miwok snared much of their small game, including quail and, quite often, rabbit, which were often driven into nets. The Sierra Miwok used nets to fish, with the length of the net depending on the width of the stream channel. The smaller net used in the Sierra was called a set net, and it was generally anchored in place, removed from the stream fairly often to remove the fish, and then reanchored and kept in approximately the same place in the stream for some time (Barrett and Gifford 1933).

The Miwok made both twined and coiled basketry. Although they generally used willow (Salix sp.) for their twined baskets and as the bundle for coiled baskets, the central and southern Sierra Miwok often replaced willow with multiple grass bundles for coiling. Central and southern Sierra Miwok baskets show the influence of Yokuts and Shoshonean peoples in shape and design

elements. Twined baskets include: burden baskets, seed beaters, winnowing trays, sifting baskets, storage baskets, fish baskets, cradle boards, and rackets for the women's ball game. Miwok basket makers used four coiling styles. Coiled basket types include: winnowers, several types of cooking baskets, "cone" baskets, storage baskets, dippers, and ornamental (possibly ceremonial) feather baskets. Barrett and Gifford, who worked with the Sierra Miwok, have reported more than 80 distinct design elements used by Sierra Miwok basket makers (Barrett and Gifford 1933).

The Sierra Miwok used a large variety of bone, antler, and stone tools. The most typical bone tool was the awl. Awls were used for a variety of purposes, including the manufacturing of baskets and the working of leather (Barrett and Gifford 1933).

Chipstone tools were made from almost any material with the proper characteristics. The most common material used for stone tools recovered in recent archeological contexts in the Sierra Nevada is obsidian. Obsidian was used for projectile points, knives, scrapers, and ceremonial pieces.

Groundstone implements used by Sierra Miwok included boiling stones, hammer stones, the manos and metates, mortars and pestles, and a variety of objects made from steatite (soapstone) (Moratto 1972; Kelly 1974; Bellinger 1974).

The mano is a handstone used in the milling process. It is usually of quartzite, basalt, or granite, and can show a variety of facial wear on as many as four surfaces. The mano was used in a horizontal push-pull motion on a metate. The metate is a milling-surface ground either on a portable rock or into a bedrock surface. Those on a bedrock surface are often called milling slicks. These tools were quite often used in the preparation of small, hard seeds. They were also used occasionally in the preparation of manzanita berries for juice. The most important tools used by the Miwok were pestles and mortars. Pestles were usually made out of compact stream cobbles, and ranged from unmodified to finely shaped, sometimes as a stylized penis. Combination pestles/manos are known from Sierran archeological sites. Mortars are either portable or fashioned into bedrock. Portable mortars were generally made from some hard compact material, ranging from simple cobbles to finely finished bowls (Moratto 1972; Kelly 1974). The finely-made cobble mortars may have been used for "first acorn" ceremonies or crushing ceremonial substances. Ethnographic evidence indicates that they were also used inside during inclement weather. The most common of all Miwok cultural remains are mortar cups in bedrock outcrops. The cups can be found wherever suitable bedrock occurs in the low foothills to elevations of more than 2,100 meters (7,000 feet) in the Sierra (Elston 1977). Mortars and pestles were used principally in the processing of acorns, the dietary staple of the Miwok. There are a number of accounts of acorn processing by the Miwok. One of these accounts appears in Barrett and Gifford's "Miwok Material Culture."

Miwok clothing was simple, and varied appropriate to weather conditions. In warm weather, children wore nothing, men wore a breechclout or nothing, and women commonly wore a garment consisting of a front and back apron of buckskin. In cold weather, everyone wore blankets. The blankets were made by weaving strips of rabbit hide or animal hides such as deer, bear, buffalo (obtained by trading), coyote, mountain lion, and, very rarely, goose or duck skins sewn together with the feathers intact.

The Miwok built at least eight types of structures. They were: acorn granaries, ramadas, grinding or pounding houses, menstrual huts, sweat lodges, dwellings, earth lodges, and assembly houses. Granaries were either a simple construction of boughs and a low stump, or a construction of several poles driven into the ground with brush, boughs, and twigs tied about the poles to make silo-like storage structures. The bottom of the silo was about three-quarters to one meter (2 to 3 feet) off the ground, and the top could be as high as 4 meters (12 feet). The ramada was an open-sided structure with a brush roof. Ramadas were built as sun shades and were used in any work or rest area, including over bedrock mortar groups. The grinding house was a similar circular structure of brush or bark, built over bedrock mortars so they could be used in inclement weather. The menstrual hut was a small, circular brush or bark structure used by menstruating women, or as a place for an older person, either man or woman, to sleep alone. Among the Sierra Miwok, dwellings were occupied by one family. Dwellings ranged from simple, circular, brush-covered bent-pole structures to modern houses. Traditional types were either above-ground circular bark slab houses or semi-subterranean circular brush and pole houses, sometimes daubed with mud or clay. In the area of Chaw'se, the preferred house was an above-ground conical structure, 5 to 6 meters (15 to 18 feet) in diameter. It was most commonly covered with incense cedar bark, although bark from dead sugar pine and ponderosa pine was also used. The sweathouse was a semi-subterranean to subterranean pole, brush, and bark structure, about the same size as a small residence. Sweathouses were daubed with mud to help hold in the heat. Although many other Native California groups recognize the sweat house as a sort of men's club, the Miwok used the structure only to sweat. Men would often fast and sweat before undertaking a hunt (Barrett and Gifford 1933).

The earth lodge was a semi-subterranean assembly and dance house. The construction consisted of a pit, 9 to 15 meters (30 to 50 feet) in diameter and 1 to 1.25 meters (3 to 4 feet) deep, with a roof of closely-spaced pole rafters supported by beams resting on four large vertical posts. The above-ground sides and roof were covered with brush, and daubed with mud and clay until watertight. The structure had a centrally located fire and smoke hole and an entrance. Opposite the entrance was a large foot drum, made by laying a hollowed-out in a small pit. A fire pit was ceremoniously excavated in the center of the floor (Barrett and Gifford 1933).

A less permanent assembly structure used by the Miwok was the circular brush enclosure. The brush enclosure was generally smaller than an earth lodge, averaging 9 meters (30 feet) in diameter. These structures were a simple framework of poles, covered with brush and pine needles. They were sometimes, but not always, roofed in the same manner. They were almost always used only during the summer, and almost exclusively for mourning ceremonies. There was one noted in 1927 at the village of "Chakachino", near Jamestown. It was a roofless example about 9 meters (30 feet) in diameter and had been constructed for a mourning ceremony (Barrett and Gifford 1933).

The final assembly structure used by the Miwok was the roundhouse. The generally above-ground roundhouses were large, wood-frame structures, averaging 12 meters (40 feet) or more in diameter. They always had four large center posts, and were otherwise set up much like the earth lodges. These structures were either circular or multi-sided, with the number of sides often a factor of 4: e.g., 8 or 12 sides. Roundhouses were roofed with shakes or

bark slabs. Siding consisted of shakes, vertical boards, or bark slabs. They were built both free-standing and with earth mounded around the outside. A number of roundhouses still exist or are known to have existed throughout the Sierra Miwok territory.

In the far south range of the Sierra Miwok near Mariposa is the Awahanee Roundhouse. Recently acquired by the California Department of Parks and Recreation, the roundhouse sits near the ethnographic village of Wassama or Wahsamah. This roundhouse was built on the site of an earlier earth lodge, and is generally believed to be immediately superimposed above the earth lodge pit.

Above-ground roundhouses were built in many places in Sierra Miwok territory. Modern dance houses are noted at the village of "Pigliku", near Groveland (Levy 1978).

There was a roundhouse at "Hachana" village, near Railroad Flat. Another recorded roundhouse was at Rocky Ridge in Murphys (Theodoratus 1980).

In Miwok territory, modern roundhouses exist at the Tuolumne Rancheria, the visitor center at Yosemite National Park, and at Indian Grinding Rock State Historic Park (Chaw'se). The Roundhouse at Chaw'se was built by older Miwok people assisted by the State Department of Parks and Recreation. The ground was cleared and construction initiated on the roundhouse in the fall of 1973. It should be noted that these roundhouses are semi-subterranean, thereby incorporating the features of both the wholly above-ground roundhouse and the earth lodge.

The Miwok organized themselves into moieties and lineages. A moiety is a two-part system of social organization, often identified in California as "land side" and "water side." Moiety membership was established through patrilineal (male line) inheritance. The Sierra Miwok called the water side "Kikua" and the land side "Tunuka." People identified as "Kikua" were called bullfrog, while "Tunuka" were called bluejay. Moieties were exogamous; that is, marriage partners were expected to come from the opposite side.

Reciprocal services included girls' puberty rites and funeral and mourning ceremonies. It is reported that at European contact, there was probably a 75 percent adherence to this marriage rule.

Miwok villages were characteristically identified with a single lineage ("Nena"), although members of more than one lineage could reside in a village. The "Nena" was a group of men who were related in the male line, such as brothers, sons, and cousins. A village which was thought to be the ancestral home of a "Nena" was often named after the "Nena". Each named village was the center for small outlying family residences, with the system being identified as a tribelet. Each tribelet had a named, identifiable territory, a principal town with a leader, and smaller satellite settlements (Barrett and Gifford 1933; Kroeber 1925).

The Sierra Miwok had a rich religious life with three general classes of ceremony: the "Kote" (Big Time), the "Uwetu" (Little Time), and a set of funerary mourning rites. The Big Time centered around the "Kukusyu." In the "Kukusyu," the dancers assumed the identities of supernatural beings and spirits.

Euroamerican Resources

The area around Indian Grinding Rock State Historic Park was one of the earliest in California to feel the impact of the Gold Rush. During the summer of 1848, many California settlers headed for the gold fields. The first men to stake mining claims near Chaw'se were a group of Mexican-American war veterans from Stevenson's regiment of New York volunteers (Lane 1959:7). The site of their strike, known as Soldiers Gulch (about 1.5 kilometers north of Chaw'se), became the first center of gold excitement in Amador County (Nadeau 1965:73). The first overland immigrants began arriving the following summer. For those who crossed into California via Carson Pass, the area around Soldiers Gulch was a logical first stopping place in the gold country. By fall, the William Wylie party (also known as the Green party) and the Jacob Cook party had staked claims near Soldiers Gulch (Lane 1959:8). These first placer claims paid extremely well; claims along Soldiers Gulch were said to have yielded as much as \$100 per day.

As the news of these rich strikes spread, goldseekers poured into Amador County. Within five years, Volcano grew from a few ragged tents to a boom town of 1,100 (Bancroft 1970:512).

Prospectors spread out in all directions from the town, mining along every creek and streambed. Miners traveling from Volcano to Grass Valley Creek and Else Creek to the west of Indian Grinding Rock probably traversed the park lands in 1848 and 1850. While mining was the dominant economic activity of this area through the 1850s, commerce and agriculture also assumed an important place in the local economy. Several ranches and farms were established around Volcano in this period. These early ranches have been mapped by Charles L. Camp, the editor of John Doble's diaries. One of the first areas to be cultivated was the flat grassland of the present park. This area was known to the miners as Grass Valley.

The first information we have concerning American activity at the site of Chaw'se comes from the journal of John Doble, a miner and resident of Volcano. A former Virginian, Doble was an astute observer and a highly literate man who has left us a detailed record of life in the gold fields along the Mokelumne River and in Volcano. In June 1852, Doble passed through Grass Valley, where he reported that "... they are mowing their grass and barley on the flat and offered me \$3 a day to mow". (Doble 1962:99.) He declined the offer, hastening on to Volcano, where miners' wages were \$6 per day.

Doble next mentions the flatlands in two 1853 entries, which indicate that both ranching and mining were going on in Grass Valley. In December, Doble traveled north to Volcano to round up his cattle, which he took "...to Grass Valley where a man is gathering up cattle to take on the lower valley to ranch." (Doble 1962:192.) A few days earlier, he noted that a company was working a ditch through Grass Valley for the purposes of draining it so they could work the ledges (Doble 1962:192).

From other sources, we know that a stage route, which passed in the vicinity of Chaw'se along the same route now traversed by Highway 88, was established in the mid-1850s between Volcano and Jackson (Lane 1959:25; Nadeau 1965:77).

Doble does not mention Native Americans in relation to Grass Valley, although he wrote frequently about Miwok around Volcano. From his journal, we can gather a little information about Indian activity and culture in the area between 1852 and 1854.

From Doble's comments, it appears that many Miwok resided near Volcano, and many more passed through the town at various times of the year. In August 1852, Doble remarked that "The Indians have been up in the mountains attending their general gatherings and are now returning in squads from 10 to 50...." (Doble 1962:113). In October, he commented that the air was smoky due to Indians setting fires to collect grasshoppers (Doble 1962:117). Again, in November, he reported that the acorn crop had been short in the vicinity of Volcano, and that Indians had been going back and forth to the mountains to gather and store acorns (Doble 1962:129).

Jesse Mason, another early Volcano resident and later historian of Amador County, asserted that some Miwok were engaged in gold mining around Volcano. Doble bears out this assertion, remarking that the Indians "...bring in considerable gold ... but that no one knows where they mine. However, they brought in so much dust that ... it is the general opinion that they have found some rich places...." (Doble 1962:92). Doble also noted that some of the local Miwok had adopted aspects of American dress, usually shirts for the men and calico skirts for the women (Doble 1962:113).

Although there was occasional violence between Miwok and white miners, both Mason and Doble lend weight to the view that there were no major hostilities (i.e., wars or major raids) in this area. Doble mentioned some incidents of alleged Indian theft which resulted in the accused Indians being shot and killed, but he records no incidents of Miwok retaliation in Volcano (Doble 1962:114, 129). According to Doble, there were numerous Indian settlements along Dry, Sutter, Amador, and Rancheria Creeks. He describes this area between Volcano and the lower settlements as "... a district of some eight miles square in which there are no mines and consequently no whites settled..." (Doble 1962:148). It is of interest that Doble reported that the "troubles" in this part of the country were thought to have resulted from Joaquin Murieta inciting the local Miwok (Doble 1962:148).

After Doble's journal stops in 1854, our information about Chaw'se becomes more sporadic. The character of mining operations in Volcano began to change by the mid-1850s. Surface deposits were worked out, and more aggressive means of extracting gold had to be employed. Hydraulic mining was introduced between 1853 and 1855. In 1857, the first quartz mine was established, and over the next decade, quartz mining largely superceded hydraulic mining. By the 1870s, the present park was completely surrounded by quartz mining claims. Evidence of mine tailings along some of the park's ravines indicates that unrecorded quartz mining was probably carried on within the park boundaries.

Quartz mining required large capital investment and employed fewer men. As the era of the placer mine passed away, Volcano declined; from its high point of the mid-1850s, the population steadily dropped, until in 1867, there were only 359 registered voters (Lane 1959:71).

Farming and ranching, on the other hand, increased in importance. Many of those who stayed divided their time between the two occupations. At the time of the first United States Surveyor General's survey in 1869, there were 30 farms and ranches in Volcano Township (Lane 1959:71). Among these were the Else Ranch which encompassed the original Grinding Rock park property and the new property acquisition.

The Else Ranch was first patented in 1874 by Sophia Else (BLM patent records). However, the Elses had operated a ranch on this land for some years before the formal claim was filed. John Doble mentions a Samuel Else (or Elsie) who had a ranch in Grass Valley, and Jesse Mason refers to the Elses as one of the first "respectable" families in Volcano (Doble 1962:303; Mason 1881:206). The first county map of 1866 shows an Else Ranch and a homesite on approximately the same location as the later patent, and identifies the creek in the southeast corner of Section 27 as Else Creek.

Six months after Sophia Else patented the property, she sold it to John Sullivan, a resident of Volcano (Amador County Recorder's Office, Deeds Book 0:162). The sale price of \$1,000 in gold coin indicates that the Else holding was a well-established and valuable ranch. John raised cattle and some crops with his brother, Jeremiah, who became a joint owner in 1881. The Sullivan brothers were Irish immigrants who tried their hand at prospecting and then in a combination of mining and ranching (Amador County Great Register 1867; 1892). In 1889, the 70-year-old John Sullivan deeded the property to Jeremiah's children (Amador County Recorder's Office 1889, Deeds Book 5:162). John J. Sullivan, one of the heirs, sold the property to Seraphino Scapucino, Sr., an immigrant from Chaviani, Italy (Amador County Recorder's Office, Book 19:284). In 1885, he married Celeste Solari of Jackson, and they eventually had four children. The elder Scapucino raised cattle, hogs, and goats, along with some garden crops. When Scapucino died in 1910, the property passed to his widow and two bachelor sons, James and Seraphino, Jr. (Amador County Recorder's Office, Deeds Book 32:598). James Scapucino, the oldest of the sons, took a strong interest in the bedrock mortars on his property. Muriel Thebaut, a resident of Volcano and friend of Scapucino, recalls that James carefully cleaned away the weeds, fallen acorns, and oak leaves around the mortar holes, and took great care that his livestock did not graze near the rocks (Interview, Muriel Thebaut, March 24, 1982). James Scapucino remembered that when he was a child, his father allowed local Miwok to use the area near the rock, perhaps even to winter there in the first decade of the century (Payen and Boloyen 1963:19).

In his later life, James Scapucino became increasingly concerned with preserving the rock, as neither he nor his brother had any direct heirs. James was particularly fearful that his property might eventually be subdivided and developed as residential property, resulting in the destruction of the bedrock mortars. Muriel and Jock Thebaut shared Scapucino's concern.

Muriel Thebaut played an important role in stimulating interest in establishing a state historic park at Grinding Rock. Mrs. Thebaut campaigned to gain support from the Volcano Chamber of Commerce, of which she was the director, from the Amador County Board of Supervisors, and from the state Division of Beaches and Parks. As a result of the support from these groups, as well as others, the State Legislature has passed several bills appropriating money for acquisition and development of the park (Interview, Muriel Thebaut, March 24, 1982).

Since the dedication of Chaw'se in 1969, the park has become a focal point for Native American activities. The presence of the ancient bedrock mortars gives the site a special significance for present-day Indian peoples. The creation of a state historic park, which preserved an important Miwok material remain, helped create local interest in reviving and rebuilding traditional Miwok culture. The structures at Chaw'se evolved out of this interest. All of the structures in the park, except the cultural center, mobile home, and campground, were built by members of the local Miwok community.

The ceremonial roundhouse, the first structure built in the park, was begun by volunteers and completed by a crew working under the federally funded Greenthumb Program (Interview, Bill Franklin, April, 16, 1982). In constructing a hand game house and the Indian football field, the Indian senior citizen crew was assisted by an all-Indian CETA crew.

To construct the roundhouse at Chaw'se, the hole was dug, and the edges were lined with a rock wall with clay and straw mortar. The Chaw'se Roundhouse is 18 meters (60 feet) in diameter, making it the largest extant ceremonial structure built by and for Native Californians. The above-ground portion (walls and roof) is built with poles in a traditional-appearing manner, tied together with grapevines and covered with slabs of cedar bark.

The 1973 crew members who built the roundhouse were Bill Franklin, 61; Clarence Potter, 63; Sam Rhoan, 73; Billy Villa, 81; Clarence Burris, 70; Effie Burris, 70; and Inez Mathiesen, 55, Raymond Tripp, Bill Blue, Harold Burris, Joe Blackwell, Lorena Tripp, and Esther Burris.

The roundhouse was completed during the summer of 1974, and was dedicated with a Big Time in September 1974. The structure is actively used several times a year by local Miwok people, with the major ceremony, a Big Time, in September each year.

The structures at Indian Grinding Rock State Historic Park were built to be used by the Miwok and other Native American peoples as part of their continuing cultural life. In this sense, Chaw'se is not a historic museum, but a vital ongoing part of Miwok tradition. Each September, Chaw'se is the site of Big Time, an important ceremonial occasion. Many Native Americans from the Amador, Calaveras, El Dorado, Tuolumne, and Sacramento County areas are active in the Chaw'se Citizens Advisory Committee, which is involved with planning the park's future development and use.

Esthetic Resources

Scenic Resources

The terrain provides a focus of scenic interest around the prairie and the grinding rock itself. Views under the oaks and across the flat, with the coniferous forest as a background, are distinctly attractive, as are the opposite views looking down from the forested slopes across or into the central prairie. While these views are not spectacular, they lend a great deal of charm and interest to the setting of the cultural resources of this unit.

Spring brings on wildflower displays, the greening of the grass, and new leaves on the trees that are pleasing to behold. The fall season adds striking contrasts and variety to the scenery, as the black oak leaves turn bright yellow against an otherwise green forest background. The rich wildlife contributes pleasures even to casual observers.

There is a sense of intrigue that accompanies viewing and relating the traditional structures and features of the zone of primary cultural interest to the surrounding natural features. These features include bark houses, roundhouses, other structures, an Indian football field, and certainly, the mortars and petroglyphs on the rock outcroppings.

One of the most visible and obtrusive negative features is a dirt road bisecting the historic park near the north side of the prairie. In spots, the roadway cuts the bank of the hill, exposing the red soil that is in stark contrast to the vegetation. Also, the traffic seen on this dirt road detracts seriously from the visual impression of the natural and cultural features.

Near the old Scapucino ranch house in the northeast portion of the unit, a dump of cans and bottles is located in a small depression. Various other trash is scattered around the same vicinity. This is unsightly, but it does depict typical ranch life of that period. Power lines run through this part of the unit.

Some exotic plant species, including common mullein (Verbascum thapsus), apple trees, tree of heaven, and some transplanted but out of place native vegetation, are located on or near the grinding rock, and are not in harmony with cultural and natural features.

The split-rail fences in and around the prairie and grinding rock area detract from the scenic and historic qualities of the landscape, but are necessary to ensure the integrity of the cultural features. The perimeter logs around the Indian football field intrude on the openness of the prairie, but they provide seating for spectators.

Evidence of timber harvesting and mining activity can be found, but these are in isolated places, and are not visible from the prairie.

Piles of mechanically-cleared manzanita are scattered throughout the pine-oak woodland hillside. These despoil the natural character of the area.

A few times a year, large numbers of cars are parked on the prairie to accommodate people coming to take part in, or view, special events. This necessitates mowing the grass to reduce the fire hazard. At present, there is no acceptable alternative to these practices.

The modern building, constructed as a cultural center, intrudes on the otherwise mostly serene cultural features. Picnic tables, garbage cans, lighting fixtures, and other modern fixtures contrast with the historic cultural features.

Auditory Resources

The varied bird life accounts for perhaps the most pleasing sounds to be heard at this unit, especially during the spring nesting season. The breeze through the trees can also be relaxing, as are the sounds made by water running through the riparian strips. The night sounds of frogs, crickets, owls, and other nocturnal animals add spirit to the atmosphere.

Disturbing noises break the silence or pleasant natural sounds. The roads in or near the unit tend to break the pleasurable sounds with traffic noises. However, traffic volume is relatively low in this area. Occasionally, noises from neighboring residences are heard.

Recreation Resources

Recreation Activities

The most popular recreational pursuit is viewing the prime cultural features, especially the grinding rock, on a year-round basis.

Occasionally, special events like Big Time draw large crowds to view Miwok dancing and related activities.

Visitor use of the cultural structures and interpretive material based on the Miwok background of this historic park constitutes intellectual recreation of a high order. The cultural center enhances this experience.

Secondary to the prime cultural recreation pursuits, some of the more traditional park experiences are available. These occur adjacent to, near, and sometimes within the prime cultural zone. They include camping, picnicking, hiking, and nature study.

The unit is too small for pastimes involving other kinds of active participation, and most of these would be incongruous with the special cultural values for which the unit was created.

Recreation Facilities

Outside the core cultural area, with its structural features such as the roundhouse and conical bark houses, other modern facilities have been provided.

The cultural center, which displays Miwok artifacts and depicts their lifestyle, still being finished in the interior, is evolving into an orientation and educational facility.

A campground of 21 sites with tables, stoves or fire pits, piped water, and restrooms is already in use at this historic park, providing accommodations for visitors who come to view the historic or natural features of the area. There may be some use by those who come merely to enjoy a camping experience without reference to the specific attractions for which this area was acquired. There is a 10-car parking area adjacent to the campground, with tables for picnicking. A nature trail leads through the cultural area, and also into the wooded area from the campground.

Recreation Potential

It is not expected that recreation in any form will increase dramatically in the foreseeable future. However, group and environmental camping, and living history and other interpretive programs and facilities, are logical extensions of present use.

Resource Policy Formation

Classification

In June 1957, Assembly Bill 96 was passed appropriating money for acquisition of the property surrounding the grinding rock at Chaw'se. The property was purchased in 1962, and was dedicated and classified as a state historic park in 1969. The classification is pertinent to general planning efforts, and is found in Section 5019.59 and following.

Section 5019.59 of the Public Resources Code notes that historical units are to be named appropriately and individually, and consist of areas established primarily to preserve objects of historical, archeological, and scientific interest, and archeological sites and places commemorating important persons or historic events. Such areas should be of sufficient size, where possible, to encompass a significant proportion of the landscape associated with the historical objects. The only facilities that may be provided are those required for the safety, comfort, and enjoyment of visitors such as access, parking, water, sanitation, interpretation, and picnicking. On approval by the State Park and Recreation Commission, lands outside the primary historic zone may be selected or acquired, developed, or operated to provide camping facilities within the appropriate historical units. On approval by the commission, an area outside the primary historic zone may be designated as a recreation zone to provide limited recreational opportunities that will supplement the public's enjoyment of the unit. Certain agricultural, mercantile, or other commercial activities may be permitted if those activities are a part of the history of the individual unit and a development has retained or restored historical authenticity. Historical units shall be named to perpetuate the primary historical theme of the individual units.

Declaration of Purpose

It is the purpose of Indian Grinding Rock State Historic Park to make available to the public for their enlightenment and enjoyment the cultural resources, and their natural setting, of this historical unit, through preservation and contemporary Native American activities and reconstruction, as appropriate, and by interpretation.

It is the function of the Department of Parks and Recreation to protect, manage, and develop, as appropriate, this unit as part of a long-term and ongoing commitment to cooperate with the local Native American community. In addition, with the cooperation of this community, the department may develop here an interpretive, regional Native American museum, as long as the local Miwok culture is preserved and interpreted as the primary emphasis of the state historic park. Preservation and interpretation may include, but is not limited to: teaching the Miwok culture, carrying the culture to future generations, and showing the Miwok culture as constantly evolving.

Zone of Primary Interest

The zone of primary interest is that area in which the department would like to influence land use so that park values are not seriously jeopardized or degraded. The entire watershed and the upper watershed are very important areas within and around this unit. Encroaching development can despoil the integrity of the scenic resources, and may alter the hydrologic processes in the unit. Every effort shall be made to influence use of the lands that so affect the unit's features and values.

Since the upper watershed contributes to both quality and quantity of water resources, its proper management is necessary to the maintenance of the water resources for this unit. The department should influence land use of the Else Creek upper watershed to preserve the water resources it provides. For the purposes of watershed protection, ridgeline boundaries are desirable.

An unspecified amount of water is deeded to a downstream landholder. This may have an effect on the maintenance of the water resources in the unit. The department should evaluate the possibility of securing water rights for all water in the unit.

Resource Management Policies

Natural Resources

The natural resources of Indian Grinding Rock State Historic Park will be managed in accordance with governing statutes, policies, and directives (California Public Resources Code; California Administrative Code; and California Department of Parks and Recreation Resource Management Directives, specifically Nos. 1-3, 24-26, 28-37, 39, 42-47, and 75) for the State Park System. The following specific policies for the unit shall also apply.

Hydrologic Resources

The flow of water, its availability and quality, are important to the management of natural systems at this unit. Altering hydrologic systems and processes will affect the soil, floral, and faunal resources.

The placement of facilities in swales will cause restrictions to normal water flows. Such facilities can also be affected by excessive moisture and humidity. The ceremonial roundhouse is an example of this problem because of its location in a swale. The dirt floor and building interior remain damp most of the year.

Policy:

The natural watercourses (springs, creeks, swales, and underground channels and aquifers) shall be left unimpeded in their flow, and their quality unimpaired. Modifications shall not occur in these zones unless they can be designed so as to remain substantially unchanged.

Planting for landscape or other purposes can adversely affect other vegetation competing for a limited water supply.

Policy:

Introduction of vegetation shall not occur except where provisions can be made to assure an adequate supply of water for the natural native vegetation.

Geologic Resources

The chemical properties of the rock, a marble slab, make it subject to relatively rapid weathering. Certain management actions, such as the removal of standing water and acidic oak leaves, may slow the weathering process and prolong the existence of the mortars and petroglyphs on the rock. Removal must be performed with the utmost care. If not, damage resulting from such an effort could exceed the rate of the natural processes.

Policy:

The department shall develop and implement a comprehensive resource management plan, with the cooperation of the Chaw'se Citizens Advisory Committee, to protect the cultural features of the rock from natural processes.

Since the rock and other geologic features are of prime concern at this unit, the discovery of subsurface features of marble or other unusual findings would be of significant importance to the department.

Policy:

A department geologist and archeologist, and a Miwok Indian approved by the Citizens Advisory Committee, shall be present when any surface-disturbing facility construction or placement activities are conducted.

Soil Resources

Land use before park acquisition has left soils exposed and disturbed in some locations, contributing to accelerated soil erosion. Natural revegetation will solve some of these problems, while others may require manipulation. Areas where lumbering, brush clearing, mining, and road and small dam building have occurred are the most affected.

Policy:

The department shall develop and implement erosion control projects to rehabilitate areas of active and damaging erosion.

The soils of the unit have limitations for most uses, especially where slope increases erosion hazard, and where permeability and fertility are poor.

Policy:

A site-specific soil survey shall be made before the siting and development of new facilities.

Plant Resources

The plant communities at Indian Grinding Rock have undergone past disturbances including livestock grazing, suppression of natural fires, logging, and mining. The results of such activities are alteration of the natural plant communities in composition, structure, distribution, health, and vigor.

California native perennials have been almost totally displaced by European annual grasses.

The forest communities in and surrounding the unit show the influence and effects of fire suppression. In natural association with fire, the forested portion of this area would be predominantly an open ponderosa pine-black oak community. Instead, it is heavily invaded with shade-tolerant species, such as incense cedar and Douglas-fir, along with considerable stands of manzanita, that are favored by fire exclusion.

These changes have also led to a heavy accumulation of forest fuels, which, along with annual grasses, presents a severe wildfire hazard. These conditions will eventually lead to a catastrophe unless measures to correct them are implemented.

Policy:

As part of the resource management plan for the unit, the department shall develop and implement a vegetation management project which shall include the use of prescribed fire to restore the natural fire cycle and enhance the competitive advantage toward native vegetation. Reduction in wildfire hazard shall also be accomplished. Revegetation with native grasses shall also be a part of this project.

The Big Time event attracts large numbers of people, which necessitates parking vehicles in the grassy areas. This practice has detrimental effects on vegetative and soil resources where it is occurring.

Policy:

A project to monitor the effects on the soils and plants associated with historic park use activities shall be conducted. If a determination is made that the impacts are irreversible or unmanageable, an alternative to the continuation of the activity shall be found.

Permanent and temporary parking shall be controlled, and shall occur only at those locations designated on the Land Use and Facilities Map of the approved General Plan for this unit. These parking areas shall conform to other resource management policies for this unit.

The rare grass (Sphenopholis obtusata var. obtusata) occurs in a small section of the meadow, along Else Creek. It is dependent on moist soil conditions, which are maintained by subsurface water flows.

Policy:

No adverse impacts shall be allowed to occur in meadow habitats that will cause a disturbance to Sphenopholis obtusata var. obtusata, especially to the water regime that maintains this plant community and meadow ecosystem. An extended search for this plant shall be conducted, and a distribution map made. The several small reservoirs above the meadow where this plant is found shall not be altered or disturbed until an assessment of their value to unit resources, especially the meadow habitats, is ascertained.

The picturesque, large valley oaks provide an appropriate and pleasing setting within which cultural features can be observed and contemplated. To assure their continued perpetuation, this special-interest plant should be more thoroughly studied.

Policy:

The department shall assess the condition of the valley oak and its supporting habitats, with perpetuation of the species and their occurrence in this unit as a prime objective. The department shall further act to negate any influences which threaten the status and continuation of this species, such as the mowing and parking in the prairie or savanna around the valley oak.

Many alien species occur throughout the unit. One of these, common mullein (Verbascum thapsus), is having a detrimental effect on the prime cultural feature, the rock, by growing in cracks and causing further fracturing through growth of the large, tuberous roots. Other alien plants have changed the character of the native vegetation.

Policy:

The department shall remove or control alien plants which are not in keeping with the purposes of the unit. Alien species shall not be used in any landscape or revegetation projects.

The Native American people of the area around Indian Grinding Rock, the general public, and the department can benefit by the traditional gathering and use of certain native plants, or parts of plants that were available at this location before Euroamerican contact. The size of this unit and the quantity of certain sought-after species requires a strict limitation on such gathering. It may be necessary to import or artificially produce such plants to achieve these objectives. Such production should occur only in predetermined locations where there will be no effects on natural native vegetation.

Policy:

Gathering and use of native plants available at this location to Native American people before Euroamerican contact shall be permitted by the Area Manager, with advice from the Citizens

Advisory Committee, only to the extent that the viability and perpetuation of those species remains unimpaired and undepleted, and in a manner consistent with other natural values and resources. Further, plants that are not indigenous to this unit shall not be introduced here. Plants used traditionally by Miwok people that are not known to be indigenous to the unit may be maintained in a living condition in containers at the proposed regional Indian museum for traditional and interpretive purposes. All other conditions of the department's Policy on Native American Traditional Use shall apply.

Wildlife Resources

Animal life lends a great deal of interest and variety to visitor experiences in a natural setting. Animal communities are also an environmental factor of the ecosystem, interrelating with and affecting other parts. Protection and perpetuation of natural wildlife populations is one of the major elements in the management objectives for the unit.

Policy:

Vegetation and water shall be managed in a manner consistent with the needs of wildlife that inhabit or migrate through the historic park, focusing on processes rather than individual species. Activity and use of the unit shall not be allowed to interfere with the permanence of wildlife resources.

Wherever possible, the department shall restore altered natural environs as nearly as possible to conditions they would be in today had natural ecological processes not been disrupted. Whether or not restoration of natural conditions is possible, it shall be the policy of the department to avoid significant imbalances caused by human influences on the natural wildlife populations. If it is necessary to regulate the populations by something other than natural means, the methods used shall be based upon sound principles of ecosystem management, and shall avoid disturbance to other natural values of the historic park.

Riparian corridors along watercourses also provide outstanding habitat values.

Policy:

Riparian corridors along perennial creeks in the unit shall be protected against significant vegetation alteration and loss of important habitat values. The borders of the protected riparian zone corridor shall extend at least 15 meters (50 feet) from both sides of the creeks. Any exceptions to this standard setback must be evaluated on a case-by-case basis.

Ecology

Natural ecosystems must be managed as a composite whole. Projects with single resource objectives must consider impacts on other resources.

Policy:

All ecosystems shall be managed toward their natural state. All proposed developments shall have site-specific ecological investigations before the working drawing phase, to ensure no loss of significant natural values.

Cultural Resources

Native American Resources

The prime resource at Indian Grinding Rock State Historic Park is the marble grinding rock (Chaw'se).

Policy:

It shall be the policy of the department to work toward preservation of the rock. Any preservation techniques developed or implemented shall be done with the advice and cooperation of the local Native American community.

In addition, there are other important archeological resources in this historical unit.

Policy:

The archeological resources, other than the rock, shall be preserved as nearly as possible intact, with little or no disturbance. Should any new archeological cultural resources be discovered at Indian Grinding Rock State Historic Park, they shall be managed under the Resource Management Directives of the State Department of Parks and Recreation and the Policies, Orders, Rules, and Regulations of the State Park and Recreation Commission.

Recent Native American architectural resources are important cultural resources in this historic park.

Policy:

The architectural resources associated with the Native American involvement at the state historic park shall be managed as nearly as possible so that they continue to appear to be aboriginal in nature.

Euroamerican Resources

The Scapucino house in the northeast corner of the unit is a rectangular, wood-frame, channel, rustic-sided building, resting on a foundation of stone walls.

The field and orchard east and northwest of the Scapucino house contain two rough-hewn beams, and the partial remains of a foundation. These are the remains of an outbuilding.

The Scapucino house is a simple, vernacular farmhouse, representative of domestic dwellings throughout California from the 1860s to the 1880s. Since it retains its original foundations, it could date from the early 1860s, although the architectural character of the wooden portion of the structure is more typical of the 1870s and 1880s.

Few of these early buildings remain in the vicinity. The house has local significance as part of early Amador County ranching and farming. It has site-specific importance because of its early date of construction, and it derives additional significance from the fact that it served as the Scapucino residence for approximately 60 years. The Scapucinos played an important part in preserving the bedrock mortars, and in seeing that the land was transferred to the Department of Parks and Recreation to ensure preservation. The Scapucino house and house parcel could provide an excellent site for interpretation of post-contact history outside the primary cultural zone.

Other historic materials in the unit include mine tailings, which are found along the trail that begins between campsites 19 and 20. The tailings are evidence of mining activity on the property.

Policy:

Both the Scapucino house and grounds and the mine tailings shall be maintained as nearly as possible in their current appearance.

It is conceivable that the Scapucino house could be rehabilitated to be used for interpretive purposes, or for use by a local organization for activities related to the historic park. It is also possible that the structure could be rehabilitated as a staff residence, pending feasibility studies.

Policy:

Adaptive use of the Scapucino house shall be considered.

Esthetic Resources

The scenic beauty and natural features of Indian Grinding Rock State Historic Park make the cultural features more interesting, understandable, and appealing.

Policy:

The department shall act to preserve the esthetic qualities of the unit.

At the present time, the north, south, and west viewsheds of the unit, because of their forest cover and elevation, do not hamper the scenic qualities present, and can be expected to remain as a sufficient barrier to visual impairment because of their inclusion within unit boundaries. However, a major exception to this is the present easement roadway, which bisects the unit north of the center of cultural features. Vehicular use of this roadway is a serious detraction, as is the road itself, to esthetic appreciation. The eastward viewshed, not in department ownership but as yet undeveloped, also provides serenity to the historic park setting. Because of its elevation

above the prairie and nearness to it, development on this wooded slope would become a visual intrusion to scenic values.

Policy:

The department shall attempt to secure all legal rights to the roadway easement through the unit in an effort to eliminate inappropriate non-park traffic and other related detractions.

The department shall evaluate possible acquisition of lands and/or easements to maintain an adequate natural setting for other unit features.

Power lines and other modern intrusions are present in this unit. The natural and cultural features would be enhanced by their removal or less conspicuous placement.

Policy:

The department shall eliminate, bury, or otherwise remove from view esthetic detractions that are not in keeping or harmony with the unit's purpose.

Recreation Resources

Recreation at Indian Grinding Rock SHP takes several forms. Certainly, the most popular and appropriate form of recreation is that which relates to the prime cultural features here.

Policy:

Only that form of recreational activity or facility which the Declaration of Purpose establishes as appropriate shall be allowed or engaged in within the zone containing prime cultural features. Other forms of recreation shall be permitted away from this zone as long as they do not interfere with, or lessen, the prime cultural experiences or features, and they are found to be appropriate to the location where they would occur.

Allowable Use Intensity

California State law (Section 5019.5, Public Resources Code) requires that a land-carrying capacity survey be made before any park or recreational area development plan is prepared. As a step in determining carrying capacity, the department first determines allowable use intensities for the various parts of the unit. This evaluation serves as a general guide, indicating areas in which natural or cultural resource sensitivity will affect development planning.

Allowable use intensity information for Indian Grinding Rock State Historic Park must necessarily consider not only the physical elements of the resources present, but must also take into account such factors as the limited size of the unit, the relative importance of the feelings to be depicted and gained here, and the perceptions which will lead or contribute to those feelings.

Mostly, the physical elements will depend upon the relative fragility of the resources, and on their desirability in terms of supporting and enhancing the primary resources and purposes of the unit. It is essential that the natural features and values that are so intimately connected to the cultural features be adequately protected and maintained. This will require adaptive uses to comply with the policies established in this resource element.

The more subjective elements of feelings and perceptions, as derived from the resources, are much more difficult either to rank, determine, or deal with in terms of providing for their proper management.

All of these elements may change either by the passage of time or through other events, requiring reconsideration.

Allowable use intensity is determined by analysis of three components: 1) management objectives; 2) visitor perceptions and attitudes; and 3) the impact of any development and use on natural and cultural resources.

The management objective for Indian Grinding Rock State Historic Park is set forth in the state historic park classification and in the Declaration of Purpose.

The second component, visitor perceptions and attitudes, involves assessing the social objectives of the department, what recreationists perceive as an acceptable recreational environment, what degree of isolation or crowding is acceptable, and other perceptions and attitudes pertaining to the quality of visitor recreation experiences. Although these factors are very difficult to quantify, this component's influence is extremely important.

The third and most important component in determining allowable use intensity involves an analysis of the natural, cultural, and esthetic resources to determine the area's physical limitations for development of facilities, and the ability of the ecosystem to withstand human impact (ecological sensitivity).

Classification of this unit as a state historic park, along with other provisions of code, regulation, and policy, determines appropriate uses. However, more detailed information on specific sensitivities and constraints is included here to identify special considerations.

Special considerations will take into account such physical factors as: geologic slope stability and relief; soil erodibility, permeability, compaction potential, and other properties; and hydrologic characteristics such as surface and groundwater depletion by use or other change causing adverse effects, flooding, and pollution potential. Biological factors to consider include: vegetation characteristics, such as durability, fragility, and regeneration rates; and wildlife considerations, such as tolerance to human activity, wildlife population levels, and stability. Additional considerations in determining ecological sensitivity are: rare and/or endangered plants and animals, unique botanic features or ecosystems, or examples of ecosystems of regional or statewide significance (marshes, riparian areas, and vernal pools).

Based on the preceding factors, allowable use intensities for lands in Indian Grinding Rock State Historic Park were determined as shown in the Allowable Use Intensity Map. Two special zones and three use classes are shown, along with descriptions of intensity levels.

INTERPRETIVE ELEMENT

Recreational Resources

To some, Chaw'se is a convenient stopover place on their way elsewhere. To others, it is a destination in itself or a place to come at special times of the year, such as the Big Time celebration held at the park each September. A campground at the historic park provides 21 family camping spaces. Day users can use the limited parking area, barbecue stoves, and picnic tables placed at selected areas.

Visitors can take photographs, paint, bird watch, hike, or merely relax in the quietness and cool shade offered by the Sierra foothill setting of oaks and pine trees. They can take a self-guided tour along a trail passing through the core area of the park which mainly involves the grinding or pounding rock and features associated with it. They can visit a small reconstructed Miwok village and the proposed Regional Indian Museum by following different connecting trails. They can also tour the rest of the park, where native trees and other plants grow in a natural setting.

Interpretive Analysis

Visitors and Their Needs

Though the park exists to serve the needs of all of the public, there are primarily two types of visitors that should be taken into account when assessing visitor needs at Indian Grinding Rock State Historic Park. One group is the local Miwok people, whose culture is a resource around which the park is developed. Most park visitors are from the general public, however, including non-Miwok Indian people.

The park is located in an area that draws a high annual tourist visitation. California Department of Transportation traffic count figures indicate that as many as 3 million cars annually traverse Highway 49 (8 miles west of the park) in Amador County, while about 2 million cars each year use Highway 88 (only 1-1/2 miles south of the park). Visitation figures for Indian Grinding Rock State Historic Park show that the park is not attracting as much of this traffic as might be possible.

The local Miwok people have participated in constructing a good portion of the structures used to interpret the Miwok culture at the park. They conduct special activities at specified times of the year at the park. They also consider this unit a part of their history and culture, both past and present. The Miwok people would like this situation to remain as it has been in the past, with the park a place for them to continue to practice and pursue their culture as they perceive it. This would benefit both them, by helping to perpetuate their culture, and the general public, by interpreting that culture.

Visitors from the general public are drawn to the park to view the rock which links the past with the present history of the unit. They are also attracted by the park's natural setting. Some of these visitors are interested in the Miwok Indian culture, and come to experience firsthand items actually

made and used by the Miwok people such as those on display at the proposed Regional Indian Museum, as well as to view and participate in the annual celebration called Big Time.

Camping at the park occurs primarily during a nine-month period beginning in early March and continuing into late November. Campsites are often full during this time, but demand nearly triples during Big Time. A lesser overflow time comes in March through May, which is primarily due to spillover from visitation to areas and events outside the park such as Daffodil Hill and the annual wildflower bloom. The decline of visitation during the three winter months is likely due to adverse weather conditions.

Day-use activity at the unit reaches its peak in September during the Big Time, and, like camping, increases in March through May. Day-use demand also drops off considerably during the winter.

Visitors from the general public at Indian Grinding Rock State Historic Park have a need for orientation when they arrive at the park. Now, visitors enter the park via the day-use and camping area, and pass by the rock and other developed facilities before they arrive at the Cultural Center. The logical and practical progression would be for them to visit this facility first for orientation and information about resources and activities available at the park, so as to allow them to understand and appreciate the rest of the park more fully.

General public visitors to the park have expressed an interest in seeing more scheduled events and more and better demonstrations of crafts. Many would like to purchase articles made by Miwok artisans. Some Miwok people using the park would like a place to sell appropriate wares. For general use throughout the year, they would like to have a place for modern-day sports, and smooth, level areas to dance.

Environmental Influences

The most noticeable intrusions on the quietness at Indian Grinding Rock are the noisy cars and trucks traveling along the county road bordering the park. There is also an occasional vehicle stirring up dust along the dirt road that passes through the center of the park.

The grinding rock is being slowly eroded by Sierra Nevada snow, rain, and wind, coupled with warming and cooling cycles. Once well-defined petroglyphs now appear as shallow carvings among the mortar holes. Some of these markings are already lost.

The cool, pleasant spring days of April, May, and June bring lush green grass and a carpet of wildflowers to the mountain prairie at the park. This is a beautiful time to visit the park. It was an ideal location for a Miwok village of a past era. We can only surmise as to what activities actually took place in the spring months before European contact. Spring would have been a time to gather bulbs and greens to supplement a diet of stored acorns. A shift to seed gathering, starting in May, might have replaced some need for acorns. Wild seeds, greens, and bulbs added to the ready supply of small and large mammals that may have been the Miwoks' total spring diet.

Heat and dry winds in July and August change the green prairies of spring into an area of dry grass. At this time of year, grass becomes a potential fire hazard, and this is when the Miwok people burned the prairie grasses to promote the growth of useful plants. During warm summer months, local Miwok people may have moved to higher elevations in pursuit of game and seasonally available plants. Some might have made occasional visits to the Central Valley to hunt antelope and tule elk. Chaw'se as a village could have been nearly vacant during this season.

September and October marked an important time of year for the Miwok people. It was time to harvest acorns and dry large amounts of meat to add to other dried food. These and other items had to be stored for use throughout the winter months.

Visitors should be aware of the poison oak, occasional rattlesnakes, and mosquitoes present in the park; these might threaten their safety or comfort.

Methods and Media

In order to fully realize the interpretive potential of Indian Grinding Rock State Historic Park, a wide variety of interpretive methods and media should be used.

Well-designed interpretive panels placed at the entrance of the park and at a few selected locations throughout the park will help orient visitors to the park and the proposed Regional Indian Museum, and will introduce the park's resources and points of interest to them. Other static displays should include photo murals showing the rock before it was surrounded by fencing, and dioramas to help illustrate how the rock was used and how it fit into the daily life of the Miwok people. Panels must be sensitively designed to relate to their surroundings.

Objects for visitors to handle (smell and touch) should be available at the museum, as well as throughout the park.

Several kinds of media presentations would be appropriate at the park. At the museum, slide shows and other video presentations and push-button quiz games could help provide orientation and information about park resources to visitors. Taped messages would also be appropriate here, as well as at selected sites throughout the park. These would be similar to the "Talking Stump" program already in place.

Self-guided experiences should be available to allow visitors coming to Indian Grinding Rock SHP to enjoy the unit with a minimum of programmed interpretation, if they so wish. A self-guided tour through the prime cultural resource area of the park already exists. The proposed Regional Indian Museum displays should also be self-guided. Eventually, a self-guided nature tour should be developed to explore the natural resources of the park, particularly plants and animals the Miwok people made use of before Euroamericans came to the area. Brochures can replace panels, where these are found to intrude on the park's resources.

Because the Miwok people are involved in the park, there is an untapped potential for them to provide demonstrations, as well as other kinds of personal services, for park visitors. Some past and present methods of using plant and animal products can be demonstrated by Miwok people. Special workshop areas can be provided at the museum and elsewhere for this purpose. Interpretive concessions can also have a part in this kind of program. Oral history programs, as well as dancing lessons and game lessons, can be conducted by Miwok people, so they can pass their culture on to their descendants. These may be appropriate for inclusion in the park's campfire programs. The knowledge of the Miwok elders is irreplaceable, and can become an important part of interpretation at the unit.

In addition, department staff should provide personal services for visitors. Guided tours of the museum and the unit will give visitors an opportunity to ask questions and to have direct contact with park personnel. Visitors should also be introduced to what the park has to offer them through a good campfire program. This would be an ideal setting for presentations by Miwok people interested in interpreting their culture to visitors. The possibilities for programs about the Miwok people are nearly unlimited.

Children's programs, such as an Environmental Living Program and a Junior Ranger Program, would be appropriate at this park.

Special events provide another chance for the Miwok people to express their contemporary culture. For example, the annual three-day Big Time activities include dances, games, arts, and crafts displays presented and sponsored by the local Miwok people. The park has also been the site of an Indian art exhibition. Such activities should be actively encouraged by the department; they add life and depth to interpretation at the park, and enhance the public's understanding and enjoyment of this historic site. If the Miwok people are interested in such an event, the park could also be the site of a living history program reenacting their traditional lifestyles before the coming of Euroamericans.

To supplement all other forms of interpretation and answer the many questions that might come to visitors' minds after they leave the park, brochures, pamphlets, leaflets, and books, as well as posters and maps, should be available for sale.

Interpretive Period

The Interpretive Period for Indian Grinding Rock State Historic Park should be a flow of history up to and including the ever-evolving present.

Prime Period: The time frame of the existing Miwok culture.

Secondary Period: Antecedent generations.

Interpretive Themes

Primary Theme: This theme shall represent the continuity of the Miwok people's culture:

A Tie with the Past.

Sub-themes:

1. Family
2. Community
3. Celebrations
4. The Wider World
5. Material Culture

Secondary Themes:

The Flora and Fauna Around Us

Caring for the Land, the Rock, and the People

Expanded Themes

Primary Theme: A Tie With the Past

The interpretive goal of this theme is to provide visitors with an appreciation and respect for the Miwok culture, showing the evolution from the traditional culture to the present-day culture. While materially different from the past, the contemporary Miwok culture has retained its same basic underlying values and attitudes.

Sub-theme: Family

This aspect of the interpretation at the park will deal with how Indian family members relate to one another, with neither young nor old left out, and how the family is part of a larger, extended family. Specific topics will include relationships (particularly parent-child roles), domestic life, and transmission of culture from one generation to another.

Sub-theme: Community

This sub-theme deals with the social organization and functioning of the Miwok community, yesterday and today. Subjects to be interpreted will include village governance, adaptations to and of the environment, housebuilding, hunting, gathering, fishing, and food preparation in the past, as well as analogous activities in the present.

Sub-theme: Celebrations

This sub-theme will deal with the religious and spiritual aspects of the Miwok people's culture. Moieties, as well as rituals, gatherings, and other celebrations, such as those of life cycle events, past and present, will be interpreted with sensitivity. For example, the general public can be educated concerning appropriate behavior in the roundhouse.

Sub-theme: The Wider World

This sub-theme will treat how the local Miwok community related to the world around them in the past, and how they relate to the world today. Subjects interpreted will include trade relations, warfare, and how the local Miwok people related to adjacent Miwok groups and other tribes in past times.

Sub-theme: Material Culture and Technology

This sub-theme will interpret the Miwok people's past dependence on natural materials to supply building materials, food, tools, and other everyday needs, and their adaptations to contemporary culture. Further, it will interpret how many objects made and used by the people have a spiritual life of their own, in an attempt to create more understanding and respect among non-Indian visitors for articles produced by these people.

Secondary Theme: The Flora and Fauna Around Us

The rich and diverse variety of species in the natural world in and around the park should be interpreted, particularly as it relates to the sub-theme interpreting material culture.

Secondary Theme: Caring for the Land, the Rock, and the People

This theme will interpret the history of the time when the Scapucino family owned the land that contains the rock. The family's efforts to protect the rock and their willingness to allow the local Miwok people to continue to use the land should be interpreted, especially in contrast to the way the Indians were generally treated in the Chaw'se area. The history of the family itself should also be treated under this theme.

Facilities

Proposed Regional Indian Museum

North of the core area is a modern two-story building which is the proposed site of the first Regional Indian Museum. This is where visitors should be introduced to the past and present lifestyles of the Miwok people.

The first floor (ground level) will be developed with the guidance of the Chaw'se Citizens Advisory Committee. The second floor will house the proposed Regional Indian Museum exhibits. Both past- and present-day objects used by Miwok people should be placed on display. There should also be space for the existing sales and information counter when the building is fully developed. Detailed planning for interpretation at the proposed Regional Indian Museum (including interpretive themes represented) will not be addressed in this document but, rather, separately, at a future time.

There can be an exhibit at the museum building showing where Chaw'se is located, and where the Northern Sierra Miwok lived in the past and where they live now. This exhibit can identify tribes that border the Miwok people, and can tell visitors about the Miwok people and their neighbors.

There can be an area provided where plants used by Miwok people but not native to the park would be planted in containers. Visitors could be shown what the

most used plants look like at different seasons. Users of this material might demonstrate when and how it was gathered, prepared, and what it was used for. At this time, a location near the proposed museum seems an appropriate place because it will be close to where some demonstrations of the uses of these materials will be taking place.

Trails

A series of self-guiding trails connect the proposed museum with the core area around the rock, the representational Miwok village, the natural area, and the campfire circle, eventually leading to the family campground.

Self-guiding interpretive signs and names will use Miwok words for objects whenever possible. These signs or tags should not detract from the natural attractiveness of the park. They will also conform to the practice of using natural material throughout the park. Eventually, a self-guiding brochure should be available to cover resources located along this entire trail network.

Village Core Area

The area around the rock is, in many ways, the heart of the park. Here is found the prime cultural resource that gave the park its name. Here, also, is where Big Time activities take place every September.

A low wooden platform with a railing has been built over a portion of the rock. It provides visitors with a good overview of the rock and its 1000+ mortar holes and numerous petroglyphs. The importance of this structure for preserving the rock and its cultural features will be interpreted to the public.

A self-operated push-button message repeater by the side of the rock is presented as a "Talking Stump." It tells visitors how the rock has been altered, and what its main function was. The rock's importance and meaning to the local Miwok people and the park will also be covered in this message. The repeater can be relocated and a new tape produced to better serve visitors.

A Miwok-style acorn granary has been built near the rock. It is intended to show how acorns were stored, and that these were probably used at or near Chaw'se.

A bark-covered ramada near the rock protects a case containing interpretive panels. This structure continues the idea of using natural material throughout the park. It also provides shade for visitors as they pause and read about the acorn pounding process used at the rock.

Ceremonial Roundhouse

The nearby Miwok ceremonial roundhouse and other Miwok-style structures were built by local Miwok people. These structures are intended to portray use of natural material in a traditional fashion (though they are not strictly traditional in style). Visitors are not allowed to enter the central portion of the ceremonial roundhouse except on special occasions, because the building is on ground blessed by many Indian groups.

Practice House

Visiting Indian dance groups have expressed a need for a place to shower, clean up, and change into their dance regalia. They would also like to have a safe place to hang their dance regalia, and to leave valuables and personal belongings while at the park. The proposed practice house, near the roundhouse, will meet these needs.

West Camp

The Miwok bark-house village (West Camp) behind the ceremonial roundhouse is intended to show what Miwok people might have lived in. Groups can be allowed to use the camp to sleep in or as a special campground (i.e., children's groups, etc.). Interpretive talks will also be scheduled here. The new group camp can serve many of the same needs even better, having restrooms for visitors' use.

Hand Game House

A Miwok-style structure north of the Indian football field was built as a hand game house. It is rather small for this purpose. Some of the walls have been removed so that it can be used for other purposes. Examples would be to use it to hold special demonstrations, or for craft displays that need special protection.

Indian Football Field

The field near this structure is used to play a traditional Miwok-style football game. This game is part of the events planned for Big Time. This field could be used at other times for other traditional and contemporary games. Indian people might be willing to participate in other activities here. However, no permanent facilities should be developed.

Campfire Circle

The campfire circle near the campground is in a wooded area, away from the main road and separated from the campground. The potential of this facility to serve the public has barely been tapped. In addition to traditional state park campfire programs, Miwok docents could provide exciting insights into their culture for visitors.

Ranch House

The Scapucino ranch house near the county road north of the proposed museum can be interpreted. This structure could be rehabilitated. It could include a garden, orchard, and other family living needs. A panel in the proposed museum can tell the story about this structure, the Scapucino family, and their relationship to Chaw'se, showing the continuity of the passage of the land from the Miwok people to the Euroamerican people and back to all the people.

Visitor Activities

Interpretive activities at Indian Grinding Rock SHP should be varied and provocative. The region's interesting geologic formation, botanical associations, and other natural features provide possibilities to create diversified programs. Interpretation will primarily be focused on orienting visitors to the unique cultural resources, while enriching their understanding of the local Miwok people and the Sierra foothill ecology.

Special events and programs during the warm months, which permit developing activities that will enhance public understanding and enjoyment, are encouraged.

Big Time

The most popular activity occurs on the fourth weekend in September. This is when the local Miwok people hold their annual Big Time gathering. Activities include Indian dancing, crafts, demonstrations, games, and a chance for the Miwok to meet and visit with other Indian people. Indian people can be encouraged to sell articles they have made at this time.

As part of the Big Time event, a barbecue dinner has been offered for sale to the public, usually on Saturday. In addition, special food booths have offered a limited variety of foods, such as Indian fry bread. Other refreshments are also offered at the booths. At times, demonstrations such as how acorn is prepared are available.

At Big Time and other scheduled events, visitors can be given the opportunity to see Indian people demonstrating technical skills. An example would be to have basket weavers preparing basket material or making baskets.

Visitors from the general public are given the opportunity to witness how Indian teams compete in various games. Indian-style football or hand games are among the most popular. There can also be brochures explaining how and why such games are played.

All guests can be allowed to enjoy a number of Indian dances performed for Big Time or other special occasions. There can be an explanation of why and for whose benefit these dances are done. Perhaps there could be a schedule of special Indian dances performed strictly for the visiting public at various times of the year. Non-Indian visitors can be allowed to join in dancing when this would be appropriate.

Other Activities

Visitors coming to the park can enjoy the scenic resource of the unit, camp, picnic, paint, photograph, and ponder over the drama of life that took place here as part of Miwok history.

Tours

Other pursuits of interest include a self-guided tour through the interpretive core area and the proposed museum. Observing and identifying Miwok structures and lifestyle is part of this experience. Learning Miwok names for plants and wildlife of the Sierra region can also be part of the new experience at the park. Large groups might have to make advance arrangements in order to have guided tours. In addition to this, they can take self-guided tours through a wooded natural area.

Visitors can view the rock, with its numerous mortar holes and petroglyphs, from which the park gets its name. They can also see and enter the reconstructed Miwok-style bark structures of various sizes and shapes.

The proposed museum will enhance the outdoor experience with some oral interpretation or demonstrations as added attractions for visitors.

Scheduled talks or guided tours can be led by specially trained docents, volunteers, special interpreters, or park rangers. This will enable groups interested in the cultural history or any special significance of the area to gain more detailed information. Such special interpretation can be planned or scheduled well in advance, allowing park personnel ample time to prepare and gather material for such activities. Traditional Miwok people can be consulted regarding the information provided to visitors.

Demonstrations

Plants and other items that appear naturally in the park can be used for interpretation. How, when, and what the items were used for by the Miwok people can be part of the information given visitors. Miwok people can be encouraged to demonstrate their uses.

Children's Programs

There is potential for developing programs especially for children at the park. The setting of the park, the rock and the structures built by the Miwok people, and the lure of learning about the Miwok way of life combine to offer excellent opportunities for creating an Environmental Living Program and a Junior Ranger Program that would have a broad appeal. These programs could either focus on the Miwok culture of the past or that of the present-day, but the distinction must be clear.

Recommendations

Further research needs:

1. More research is needed to clarify the difference between the process of pounding versus the process of grinding acorns, seeds, etc.

Interpretive priorities:

1. Miwok people should be encouraged to participate as docents and interpreters at the state historic park.
2. For better orientation to the park's location, the department should provide more noticeable signs on nearby highways, as well as making park events, schedules, and brochures available at chambers of commerce and other tourist information facilities in the area.
3. New panels are needed at the campground entrance to orient visitors to the park.
4. More self-guiding trails and brochures should be developed.
5. The self-guiding trail through the core area of the park needs improving.
6. Self-guiding trails should incorporate rest stops along their routes for the elderly and the disabled.
7. More regularly-scheduled and special events are needed throughout the year.
8. Park visitors should be encouraged to participate in demonstrations and other activities whenever possible.
9. A greater variety of slide and/or other video shows is needed at the park.
10. Natural materials should be used for future repairs or replacement of structures.

LAND USE AND FACILITIES ELEMENT

Existing Land Use

Surrounding Lands

The outside area, forming a scenic backdrop for the park, consists primarily of large parcels of residential lands. Except for a partially developed subdivision parcel south of the park, the parcels are 20 acres or larger. Due to the heavy vegetation cover and relatively few developments, the area appears rural and natural. The towns of Volcano and Pine Grove are about 1.5 miles away, along a winding and narrow county road.

Park Lands

Existing land uses in the park are centered on cultural interpretation, with supportive recreational uses such as camping, picnicking, and hiking. Existing facilities, including the grinding rock, the cultural center, the Miwok village, the 21-unit campground, and the Indian football field are spread on 25 acres of flat area in the center of the park. The peripheral areas total about 110 acres of hilly and wooded lands; they remain natural, and are used for hiking, a group camp, and nature study.

Visitor attendance records for F.Y. 1982 show that 16,927 persons came to the park for day use, and 6,486 persons for overnight use.

Analysis of the Unit's Needs

Consultation with the local Miwok Citizens Advisory Committee, park staff, and other interested individuals established their concerns and desires. These concerns and desires have identified the recreational needs which are analyzed here.

Acquisition

The park is incomplete without the adjoining parcel of land, which contains a sacred site.

The right-of-way access that bisects the existing park unit is a constant frustration to operation and management.

The existing park unit boundaries are not appropriate to topography, watershed, and watershed.

Development

An important guideline for Native American cultural-related development is to maintain an Miwok appearance. This can be accomplished by exposing to view unprocessed building materials -- logs and branches instead of sawn lumber, natural stone instead of brick, etc. The existing roundhouse, built by local

Native Americans, is a perfect example. This principle of Miwok appearance needs to be applied to the cultural center, the food and beverage stands, and the proposed addition of a practice house near the roundhouse.

A Miwok-style group camp is needed for use by Native American groups who organize and put on ceremonials and other cultural expressions. This group camp should also maintain a Miwok appearance. It is needed in a separate area which is not visible from the central core area, where the roundhouse and grinding rock are located.

It is appropriate to use standard building materials, etc., in the existing family campground area, rather than trying to present a Miwok appearance here. The existing family campground is of standard design, and is separate from the areas where the Miwok cultural expressions and ceremonials take place. Visitors to the campground have indicated their need for showers.

Restraint from overdevelopment is another requirement for a Miwok appearance.

Improved access to the grinding rock and roundhouse through the cultural center is needed. Improved access includes the concepts of nearby parking and access for the disabled; as an example, there is a need to improve the existing loose stone path at the cultural center, and to provide benches and shade for resting.

Interpretation

The need here is to interpret the Miwok culture in the best possible manner. This includes teaching Miwok culture, carrying the culture to future generations, and showing the Miwok culture as constantly evolving. Analysis with practical recommendations for interpretation is fundamental to this General Plan, and is covered in the interpretive element of this document.

Operation and Management

Operation and management of a State Park System facility established for the purpose of interpreting a Native American culture must be designed to carry out those goals. The need is for a management structure that embraces the goals without neglecting the public responsibilities of park staff (see Operations Element).

Proposed Land Use

Land use in Chaw'se should continue to follow the present pattern that centers on cultural interpretation, with camping, picnicking, and nature studies as supportive uses. To improve public access and to mitigate resource impact, the following changes in land use are recommended:

1. About one acre of open area north of the cultural center should be developed for public access and parking, with picnic facilities.
2. All water rights and access easements through the park should be acquired.

3. About one acre of wooded area north of the easement road should be developed for a walk-in group camp.
4. The Scapucino House should be maintained as a residence, or adapted for other compatible uses.

Proposed Facilities

It is recommended that the following facilities should be added or modified:

1. Entrance and Parking to Cultural Center/Proposed Regional Indian Museum

A new entrance road and a parking lot, separate from the existing campground, will provide access to the cultural center/proposed Regional Indian Museum and to the area where Big Time celebrations take place.

The road and parking will be located to the north of the cultural center, where they will be least visible from the grinding rock area. The road and parking lot should appear as natural soil. Picnic tables and stoves are recommended in the vicinity of the parking lot.

The parking lot will be designed to hold about 70 cars and 2 buses. Around it, appropriate vegetative screening will be provided.

From the parking lot, a path usable by wheelchairs will connect the cultural center and the core area.

2. Cultural Center (Modification)

The cultural center is proposed to be modified to include a Regional Indian Museum (see Interpretive Element, page 39).

The building should be completed inside. An exterior Miwok appearance is appropriate, and can be achieved using a veneer of native rocks on the bottom, and cedar bark above. Bark should come all the way to the ground in the entrance alcove.

3. Additional Sitting Spaces

Benches should be provided around the cultural center and the parking area.

4. Big Time Parking Area

A site capable of accommodating about 600 cars is needed for Big Time parking. Alternative sites for the relocation of special event parking now on the prairie were considered to protect the historic scene and the Valley Oaks. The most promising alternative site between the creek and the easement road was determined to be too steep, and would require excessive grading to make it safe for public use; therefore, it is less suitable than the present site. It is recommended that overflow parking should be continued on the prairie for the time being.

5. Practice House

A new practice house, for dance practice and dressing, is recommended. The practice house should be about 20 feet in diameter. It should maintain a Miwok appearance, with architectural style and material that match the existing ceremonial roundhouse.

6. Scapucino House

The house should be maintained for adaptive uses.

7. Interpretation

See page 34, Interpretive Element.

8. Landscaping

The unit should be revegetated with native plants.

9. Administration

Existing storage facilities should be expanded.

10. Campground

Outdoor showers should be provided near the existing comfort stations.

Long-Range Planning Recommendations
for Acquisition

Acquisition proposals described here are intended for long-range planning purposes only, and are not a commitment for acquisition. In the context of long-range planning, it is recommended that the acquisition priority should be in the following order:

1. The 40 acres adjacent to the north park boundary. The land contains sacred sites, and will enhance cultural and ceremonial use by Native Americans.
2. The 60-foot-wide access easement cuts the park in the middle, and encroaches on sacred sites in the area. It hinders public use and operation of the park. The road and water easements should be eliminated.
3. The wooded hillside facing the village across Pine Grove - Volcano Road should be acquired for viewshed and watershed protection.
4. The adjacent Bureau of Land Management (BLM) parcel should be transferred to the park. It provides potential for recreational use, including day use and overnight camping.

OPERATIONS ELEMENT

The purpose of this section is to identify operational situations which are unique to Indian Grinding Rock SHP. There is no intention to restate all of the normal rules, regulations, and operational policies of the department. The following key elements are discussed, and the operational policy is then identified.

Chaw'se Citizens Advisory Committee

The Chaw'se Citizens Advisory Committee was established in the early 1970s to act in an advisory capacity to the director on all matters directly or indirectly pertaining to the development, extension, interpretation, and preservation of Indian Grinding Rock SHP.

Policy:

The concept of an advisory committee shall be retained and encouraged. Members of the committee shall be predominately Native Californians from the local Miwok community. In the event the unit becomes a site for a regional museum, the committee may have members from all Native American cultures within the regional boundaries. The committee shall be encouraged to advise the area manager, and to provide information reflecting the concerns and viewpoint of the local Native Californian community on all issues affecting the unit.

Chaw'se Indian Grinding Rock Association

In 1981, the Chaw'se Indian Grinding Rock Association was formed as a non-profit organization to promote and enhance educational and interpretive activities at the unit.

Policy:

The cooperating association shall be retained and encouraged. Native Californians shall be encouraged to participate in the association, and to take a leading role in directing its activities. Activities of the association shall not conflict with those of the Chaw'se Citizens Advisory Committee.

Big Time

In 1968, Governor Ronald Reagan proclaimed the fourth Friday in September as American Indian Day, a time for all Native Californians to celebrate their heritage. For the Miwok, it was the traditional acorn gathering time, and the time for giving thanks to their creator.

Policy:

The fourth Saturday and Sunday in September will be set aside at the unit for the Big Time celebration. The event will be administered by a special event permit. The Department of Parks

and Recreation will make every effort to allow a meaningful and rewarding event, compatible with Miwok tradition and customs.

Cultural Celebrations

At various times during the year, local Miwok people gather together at Chaw'se. There is no intention to publicize or promote such gatherings; rather, the department will assist by doing everything possible to assure that all facilities are made available.

Policy:

On various dates throughout the year, especially Easter and Memorial Day, the department will make every effort to assure that the Chaw'se unit is open and that all facilities are made available to local Miwok people.

Cultural Center/Proposed Regional Indian Museum

The cultural center was constructed in 1977 to provide a place for interpretation and enhancement of the Miwok culture.

Policy:

Interpretation presented at the cultural center shall follow the approved Interpretive Prospectus for the unit. Use of the cultural center by the local Miwok community shall be encouraged. Special events to be conducted in the center will follow procedures set forth in departmental policy, and will be approved by the area manager.

Roundhouse

The local Miwok community assisted in the construction of this roundhouse. The roundhouse is used primarily by the Miwok community to hold religious and other ceremonial events.

Policy:

As a general rule, only Miwok-sponsored activities will be conducted in the roundhouse. Miwok customs, beliefs, and traditions should be observed by all persons entering the roundhouse. Requests for use of the roundhouse for non-Miwok sponsored events will be submitted to the Chaw'se Citizens Advisory Committee for approval. Use of the roundhouse by non-Indian groups for dance or religious activities is inappropriate, and shall not be allowed. Any maintenance and repair to the roundhouse should be made with the advice of the Chaw'se Citizens Advisory Committee.

Indian Football Field

An area has been set aside adjacent to the roundhouse to be used by visitors for traditional Indian and contemporary sports activities.

Policy:

The playing of traditional Indian games such as Indian Football, and contemporary games such as baseball and horseshoes, shall be permitted in and adjacent to the Indian game field. Games shall be played without the construction of permanent facilities. Any specific site selected for games such as horseshoes shall receive careful evaluation and frequent follow-up to assure that no resource damage occurs. Games will be informal in nature, for the enjoyment of park visitors. Use of the field for formal league-type games, team practices, and other similar events will be prohibited. Final approval for all types of activities shall be given by the area manager.

Group Camp

In 1983, an Environmental Group Camp was established at the unit to provide an area for people to camp in a more natural setting. This camp area will provide a place for Indian education groups and other interested groups to learn and study the Miwok culture in a natural environment.

Policy:

The advisory committee may set aside one weekend per month for camping by the Indian community. All Indian groups desiring to use the campsite shall be approved by the advisory committee for this period.

ENVIRONMENTAL IMPACT ELEMENT

Description of the Project

A state and regional location map is found in the Introduction; see page 2. The objectives of the project are described in the Introduction, page 1. The physical changes that are proposed are described in the Land Use and Facilities Element, page 45. These proposals include:

1. A new main entrance and 70-car parking lot for day use.
2. Modification of the Cultural Center; complete exterior and interior work.
3. A practice house for rehearsals of dances performed in the ceremonial roundhouse.
4. Use of the Scapucino House for adaptive purposes.
5. Other Proposals
 - a. Benches around the cultural center.
 - b. Expansion of storage facilities in the administration area.
 - c. Addition of outdoor showers in the family campground.
 - d. Facilities for the disabled.

The resource management proposals, the interpretive plans, and the operation plans are described in the respective elements.

Description of the Environmental Setting

Most of the environmental setting is described in the Resource Element; see page 3.

This General Plan conforms to local plans. There are few environmental problems in the project area. Pacific Gas and Electric supplies electricity, and another private company supplies propane. A well and tank in the unit supply water. Initial police and fire protection is supplied by the unit's operation staff. The Amador County Sheriff's Department can supply backup assistance, and the California Department of Forestry responds to fires. The CDF fire station is in Pine Grove. Amador County Transit stops in Pine Grove and Volcano. The sewer system uses leachfields.

Environmental Impact

(a) Significant Environmental Effects of the Proposed Project

Energy and materials used in constructing parking lots and other facilities would commit nonrenewable resources.

Geology

Geologic features would not be affected. The large marble outcropping which was used by the Miwok Indians for grinding food would not be affected.

Soil

There may be some effect on the soils of the area due to proposed construction of facilities. Denuded earth could be eroded, and could cause siltation in Else Creek. During Big Time and other major events, overflow parking will be put into the prairie area, as has been done in the past. This could result in denuding vegetation and causing soil erosion and soil compaction.

Biota

No rare or endangered species are located in this site, according to the State Department of Fish and Game. The Resource Element describes many of the impacts that are occurring to the vegetation in the unit. There is concern that vehicles in the prairie may damage small oaks and other vegetation.

New facilities, such as the 70-car parking lot, will remove vegetation from the unit. Possible drainage changes may affect vegetation.

Fire

The possibility of fire is of concern. The dry grasses in summer, other vegetation in the unit, and the facilities which are made of wood products are subject to burning.

Watershed

There is the possibility of stream siltation, minor alterations in drainage, and pollution from leachfields.

Airshed

Exhaust from vehicles, campfires, and heating will add to air pollution in the area. Air pollution is not now a major problem in the area.

Noise

Some noise will occur during construction of proposed features. Long-range noise problems would not be significant.

Transportation

Transportation will continue to be primarily by car or bus. The new parking area will benefit the public wanting to see the proposed regional museum and other features. Day users will no longer have to go through the campground.

The access road, the Pine Grove-Volcano Road, is a narrow, two-laned county road. At present and in the foreseeable future, it is expected to be able to accommodate visitors wishing to stop at the state historic park.

Cultural Impacts

No cultural impacts are expected. Occasionally, children walk out on the grinding rock. Natural weathering is a long-term threat to this cultural resource.

All parking areas may be an esthetic concern due to the visual impact of cars parked in the historic setting.

Public Service

No significant increase is expected upon police, fire, schools, and other public service departments in the area. Use of the unit will probably increase due to the group camp and the proposed regional museum.

(b) Significant Environmental Effects Which Cannot Be Avoided if the Proposal is Implemented

Short-term effects mentioned under (a) cannot be completely avoided. These are impacts that will occur during construction. Other effects are those having to do with loss of natural areas, such as the proposed parking area. There will also be non-renewable materials used for construction of the project, and energy will be used to construct and operate the unit.

(c) Mitigation Measures Proposed to Minimize the Significant Effects

The Resource Element's management policies will be implemented. These policies should help ensure the preservation of the cultural and natural values of the unit.

The operations staff will enforce and educate the public regarding protection of the resources. The operations staff will also keep the park maintained and esthetic.

(d) Alternatives to the Proposed Action

1. No project Alternative - Under this alternative, nothing would happen. Additional parking, construction of a practice house, and other facilities would not occur. Other long-range plans would not be approved. Under this plan, the Regional Indian Museum would not be developed.
2. Scapucino House - Various concepts have been proposed on use of the Scapucino House. Other ideas besides the proposed adaptive use have been to leave it as is with minimal maintenance, or to use it as a house museum.

3. Resource Management - Questions on whether to let native vegetation grow naturally without any management, or to try to manage vegetation, much as the Native Americans did, have been discussed.

Other discussions on the desirability of removing non-native species and planting vegetation for screening the parking lot have been studied. It was decided that landscaping may alter the natural drainage and affect vegetation.

(e) The Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity

The proposed project would have long-term beneficial environmental effects because of the proposed resource policies. The proposed facilities and other aspects of the plan would offer improved visitor facilities and better interpretive facilities. The plan also offers policies for management of the natural and cultural resources of the unit.

There is a long-term risk that increased visitation to the unit could cause more damage than the limited number of visitors who use the unit at present; however, the proposed allowable use standards should not allow this to happen.

The long-term uses proposed in the Plan's Resource Element and the Land Use and Facilities Element call for a continuation of present use. The relationship between short-term uses and long-term productivity is complementary.

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

The following irreversible environmental changes are expected:

1. The commitment of nonrenewable resources such as oil, gasoline, and gravel to construct roads, parking areas, and other park facilities.
2. The loss of open space, wildlife, wildlife habitat, and vegetation due to the development of new facilities in previously undeveloped areas, and from increases in visitation.

(g) Growth-Inducing Impact of the Proposed Action

Visitor use for the unit should increase because of the larger parking lot and the other new facilities and interest generated by the regional museum concept. However, this type of project will not induce growth in the area such as new subdivisions, etc. It could have a small effect on the tourism industry of Amador County.

Organizations and Persons Consulted

State of California, Department of Parks and Recreation

Operations Division: Craig Engel, Area Manager, Calaveras Area
Armando Noriega

Development Division: George Rackelmann
George Dong

Resource Protection
Division: John L. Kelly
Dr. Carol Roland
Norman Wilson
Gary Fregien

Office Of Historic
Preservation: Dwight Dutschke

Office of Interpretive
Services: Charles Smith
Joann Weiler

Governor's Office, Native American Heritage Commission

Amador County - Steve Branco

Others

Chaw'se Citizens Advisory Committee
Chaw'se Indian Grinding Rock Association

COMMENTS AND RESPONSES TO THE
INDIAN GRINDING ROCK STATE HISTORIC PARK
PRELIMINARY GENERAL PLAN, INCLUDING
DRAFT ENVIRONMENTAL IMPACT ELEMENT (REPORT)

SCH 82101105

COPIES OF THE INDIAN GRINDING ROCK STATE HISTORIC PARK PRELIMINARY GENERAL PLAN, INCLUDING A DRAFT ENVIRONMENTAL IMPACT ELEMENT (REPORT), WERE SENT TO THE FOLLOWING AGENCIES, ORGANIZATIONS AND INDIVIDUALS:

The State Clearinghouse

Honorable John Garamendi, Member of the Senate

Honorable Norman S. Waters, Member of the Assembly

Central Sierra Planning Council

Amador County Planning Department

Native American Heritage Commission, William J. Pink

Sierra Club Task Force

Dr. Robert Mark

Mr. Murray Rosenthal

Chaw-se Citizens' Advisory Committee members, Past Committee Members, and Interested Citizens:

Clarence Burris

Harold Burris

Margaret Dalton

Ramona Dutschke

Elizabeth Ford

Bill Franklin

Florence Thomas-Gonzalez

Bill Longman

Karl Mathieson

Clyde Newlin

Henry Paerl

John Porter

Elmer Riba

Harry and Margaret Rogie

Carolyn Sayers

Melanie Stradan

Muriel Thebaut

Raymond Tripp

Henrietta Widmer

COPIES WERE AVAILABLE FOR PUBLIC REVIEW AT THE FOLLOWING LOCATIONS:

Indian Grinding Rock State Historic Park, Pine Grove, CA

Calaveras Big Trees State Park, Arnold, CA

Region 3 Headquarters, Department of Parks and Recreation, Stockton, CA

Amador County Library, Jackson, CA

Amador County Library, Sutter Creek, CA

City of Stockton Library, Fair Oaks Branch

Sacramento City Library, Main Branch

LEGAL NOTICES WERE PUBLISHED IN THE FOLLOWING NEWSPAPERS:

Amador Dispatch, Jackson, CA

Amador Ledger, Jackson, CA

Amador Progress News, Ione, CA

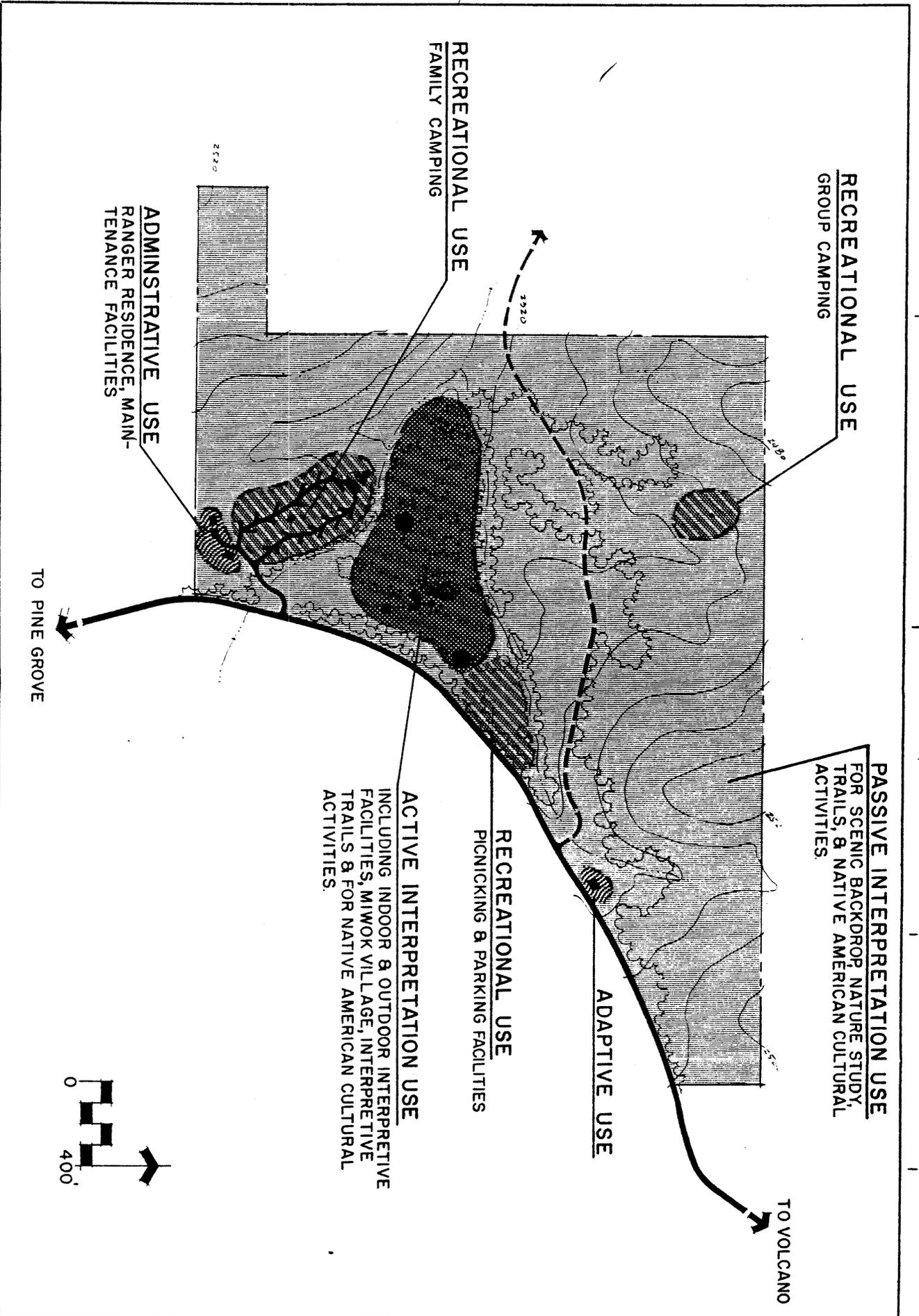
Sacramento Bee, Sacramento, CA

Sacramento Union, Sacramento, CA

Stockton Record, Stockton, CA

COMMENTS WERE RECEIVED FROM THE FOLLOWING AGENCIES, ORGANIZATIONS AND INDIVIDUALS:

None



RECREATIONAL USE
GROUP CAMPING

RECREATIONAL USE
FAMILY CAMPING

ADMINSTRATIVE USE
RANGER RESIDENCE, MAIN-
TENANCE FACILITIES

PASSIVE INTERPRETATION USE
FOR SCENIC BACKDROP, NATURE STUDY,
TRAILS, & NATIVE AMERICAN CULTURAL
ACTIVITIES.

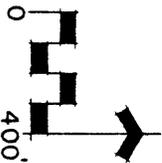
ADAPTIVE USE

RECREATIONAL USE
PICNICKING & PARKING FACILITIES

ACTIVE INTERPRETATION USE
INCLUDING INDOOR & OUTDOOR INTERPRETIVE
FACILITIES, MIWOK VILLAGE, INTERPRETIVE
TRAILS & FOR NATIVE AMERICAN CULTURAL
ACTIVITIES.

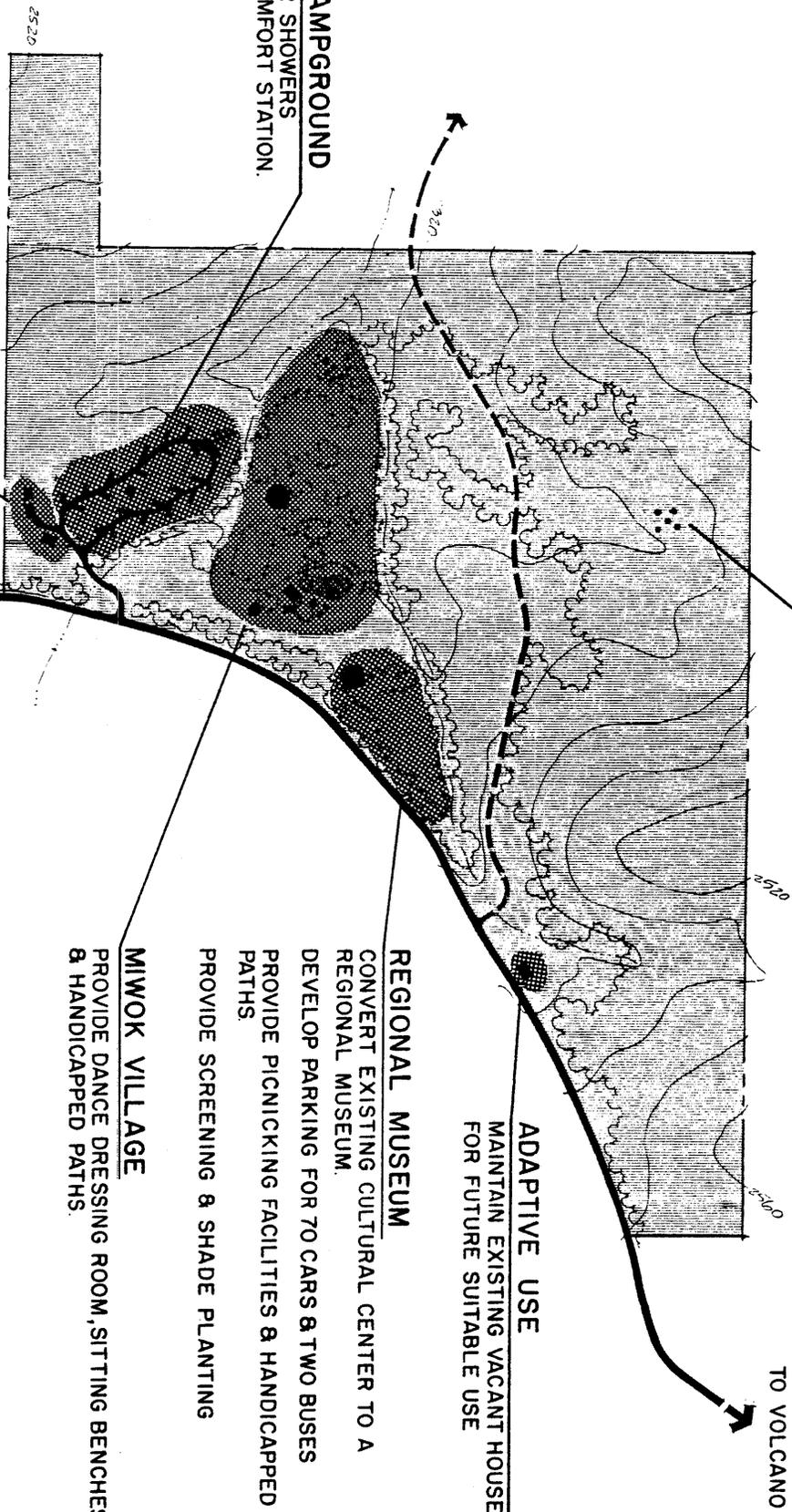
TO PINE GROVE

TO VOLCANO



DRAWING NO. 19214 SHEET NO.	INDIAN GRINDING ROCK SHP GENERAL PLAN PROPOSED LAND USE		RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION		REVISIONS	DATE	DESIGNED
	APPROVED _____ DATE _____		APPROVED _____ DATE _____				DRAWN
							CHECKED

MIWOK GROUP CAMP
(EXISTING)



FAMILY CAMPGROUND
ADD OUTDOOR SHOWERS
NEAR THE COMFORT STATION.

ADMINISTRATION AREA
EXPAND STORAGE FACILITY

ADAPTIVE USE
MAINTAIN EXISTING VACANT HOUSE
FOR FUTURE SUITABLE USE

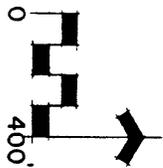
REGIONAL MUSEUM
CONVERT EXISTING CULTURAL CENTER TO A
REGIONAL MUSEUM.
DEVELOP PARKING FOR 70 CARS & TWO BUSES
PROVIDE PICNICKING FACILITIES & HANDICAPPED
PATHS.
PROVIDE SCREENING & SHADE PLANTING

MIWOK VILLAGE
PROVIDE DANCE DRESSING ROOM, SITTING BENCHES,
& HANDICAPPED PATHS.

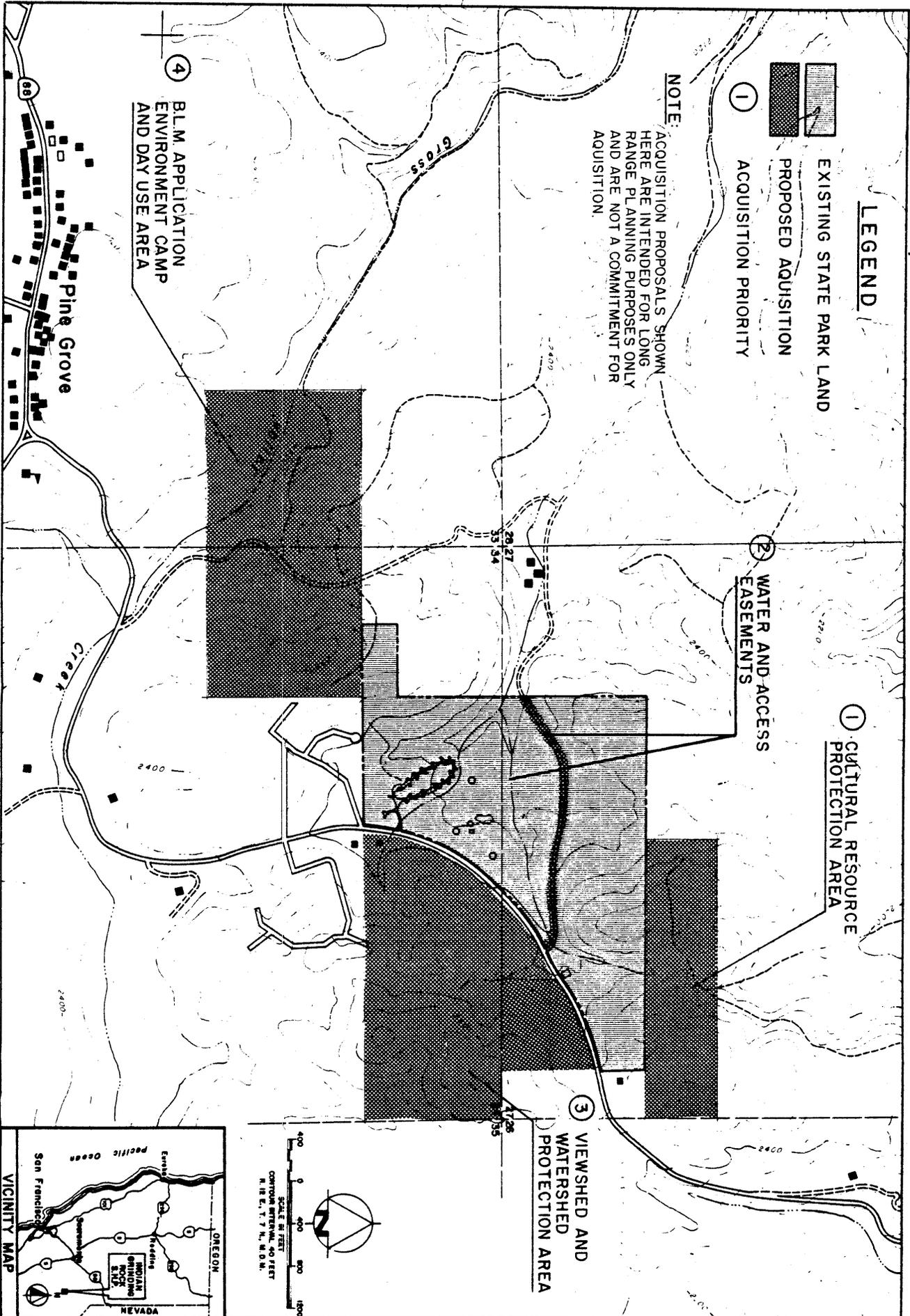
NOTE:
PROPOSED FACILITIES SHOWN HERE REFER TO
NEW FACILITIES TO BE ADDED TO OR MODIFIED
FROM THE EXISTINGS AS SHOWN IN THE EXIST-
ING FACILITIES MAP ON PAGE _____

TO PINE GROVE

TO VOLCANO



SHEET NO. OR	DRAWING NO. 19214	INDIAN GRINDING ROCK S.H.P GENERAL PLAN PROPOSED FACILITIES		RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION		REVISIONS	DATE	DESIGNED
		APPROVED _____ DATE _____		APPROVED _____ DATE _____		DRAWN	CHECKED	CHECKED
		APPROVED _____ DATE _____		APPROVED _____ DATE _____		CHECKED	CHECKED	CHECKED



LEGEND

- EXISTING STATE PARK LAND
- PROPOSED ACQUISITION
- ACQUISITION PRIORITY

WATER AND ACCESS EASEMENTS

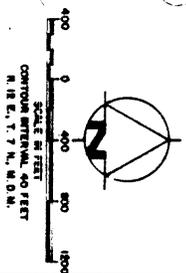
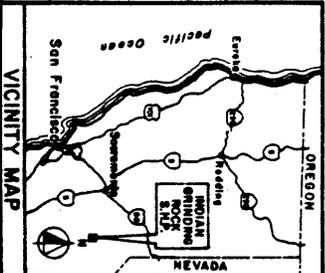
CULTURAL RESOURCE PROTECTION AREA

WATERSHED AND PROTECTION AREA

BLM APPLICATION ENVIRONMENT CAMP AND DAY USE AREA

Pine Grove

NOTE: ACQUISITION PROPOSALS SHOWN HERE ARE INTENDED FOR LONG RANGE PLANNING PURPOSES ONLY AND ARE NOT A COMMITMENT FOR ACQUISITION.



DRAWING NO. 19214	INDIAN GRINDING ROCK S.H.P. GENERAL PLAN CONCEPTUAL LONG-RANGE PLAN	RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION	REVISIONS	DATE	DESIGNED
			APPROVED	DATE	DRAWN
					CHECKED