UNIT 701

ANDERSON MARSH STATE HISTORIC PARK

GENERAL PLAN

January 1988

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Preliminary General Plan

September 1987

State of California
The Resources Agency
Dept. of Parks and Recreation

George Deukmejian, Governor
Gordon Van Vleck, Secretary
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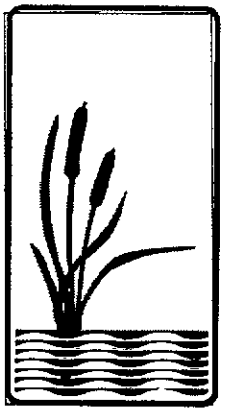
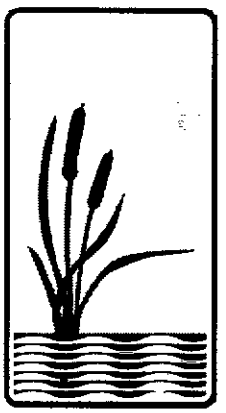


Summary



Summary

Anderson Marsh State Historic Park in Lake County in Northern California is a roughly shaped square mile of undeveloped land lying at the southeastern tip of Clear Lake, where it empties into Cache Creek. The quiet, natural character and beauty of the landscape attract many visitors. Those who simply enjoy the view - a wide, open valley rising to an oak-studded ridge bordering the marsh, and the meandering flow of Cache Creek and its oxbows - may also appreciate the importance of the park's wetland, which represents one-half of the remaining tule marsh and riparian woodland habitat at Clear Lake.

A naturally protected refuge that attracts abundant wildlife, the marsh thousands of years ago also drew human beings to its periphery to make a dwelling place. The archeological sites remaining from the first 10,000 years of human occupation constitute one of the most complete records of prehistoric Native American cultures in the entire State Park System.

The advent of Euroamerican settlement and ranching activities at Clear Lake left historic ranch structures that record 130 years of agricultural occupation at Anderson Marsh. Due to the overwhelming significance of its cultural and natural resources, the 871-acre unit is classified as a state historic park, of which about 540 acres are subclassified as natural preserve.

Visitor attendance at the park has doubled each year since its acquisition by the Department of Parks and Recreation in 1983. Birdwatching, nature observation, picnicking, fishing, boating, archeological field study, ranch tours and special events were activities enjoyed by about 11,000 visitors to the park in 1985-86.

Essentially, this use occurs in a new park that has no visitor facilities developed to support it. Most park use takes place in two locations: the Anderson Ranch complex where historic buildings are in a state of disrepair, and the one defined, but undeveloped, Cache Creek day-use area. On the other hand, there are interesting areas of the park that are little used because they are not so readily accessible or do not have the facilities that invite public use. These areas have the potential to provide a greater diversity of recreation and interpretation.

To accommodate increasing visitation at the park and to manage and protect resource values, the Department of Parks and Recreation needs to undertake major programs of resource management, building restoration, and interpretation to enhance existing facilities and to open up other areas for visitor enjoyment. The department must also develop new opportunities and facilities for optimizing public enjoyment of the park's prime resources - the Native American features and wetland habitats - which are the reasons for Anderson Marsh's acquisition as public property.

To carry out such a program, this General Plan is prepared to guide the effort and to support the department's requests to the legislature for funding. As presented here, the General Plan for Anderson Marsh State Historic Park emphasizes low-key recreation and preservation of the park's quiet character and beauty. The overall thrust of the plan's proposals is to provide opportunities for interpretation, enjoyment, and appreciation of the park's prime resources while minimizing the environmental impacts of visitor support facilities.

The plan's proposals can be summarized in four areas: resource management, interpretation, facilities, and operations.

Resource Management

The resource management policies are intended to restore, protect, and perpetuate cultural and natural resources, and to provide direction for future development effort.

- Establish a resource management program to perpetuate the unit's resource values.
- Cooperate with the adjacent property owner, the National Audubon Society, in managing the Anderson Marsh wetland habitat to perpetuate it as a natural ecosystem.
- Restore and protect the area's natural conditions, habitats, and processes.
- Undertake a study to determine the benefit and feasibility of restoring Molesworth Creek to its original alignment within the park.
- Restore fire to its natural role in the ecosystem and develop a wildfire management plan.
- Control nonnative plant species.
- Protect and perpetuate rare, endangered, or threatened plants and animals.
- Cooperate with all Clear Lake flood control agencies and take an active role in making land use decisions affecting the park.
- Preserve and protect significant archeological resources at the park, and provide an artifact storage and curatorial facility.
- Maintain the historic integrity of the ranch house and adjacent barns.

Interpretation

These proposals will improve the educational and informational opportunities at the park to enhance the public's recreational experiences.

- The interpretive period will include the flow of history from the earliest known occupation to the present.
- The overall interpretive theme for the park is "Anderson Marsh: Preserving Clear Lake's Cultural and Natural History".
- Proposals for interpretive facilities include:
  - -- Development of a visitor center for park orientation and interpretation of cultural and natural resources.
  - -- Restoration of the Anderson ranch house as a house museum, and of the grounds and other structures for historic interpretation.
  - -- Enhancement of existing trails and development of a marsh overlook on Lewis Ridge and a new wetlands trail for natural interpretation.
  - -- Design and construction of a Pomo Village for Native American cultural interpretation.
  - -- Development of an archeological site viewing area.
  - -- Placement of various displays and interpretive panels within the park.
  - -- Development of a plan for the curation and interpretation of artifacts taken from archeological sites within the park.
- Volunteers will be encouraged to be an integral part of interpretive activities. Docents may be used in a variety of interpretive activities and special events, including tours of the visitor center and ranch, interpretive hikes, guided boat tours, living history, and environmental living programs.
- Ongoing research will be carried out to provide further information about the park.

Facilities

Anderson Ranch/Visitor Center

- Develop a safer access, entrance road, and contact station to serve the ranch area and proposed visitor center.
- Convert existing ranch parking to a picnic area.
- Develop a new 50 to 75-car parking facility to accommodate both the ranch area and visitor center.
- Provide public restrooms at the ranch through adaptation or reconstruction of the southeastern storage shed.
- Maintain existing 300-car overflow parking area.
- In conjunction with Caltrans Highway 53 improvements, work to provide a landscaped sound wall between the ranch and highway.

Lewis Ridge

- Maintain the existing ranch road for emergency and service access to the ridge.
- Provide restroom facilities at the Pomo Village.
- Develop a parking and drop-off area for disabled persons near the village.
- Demolish the nonhistoric ridge barns.

North Flat

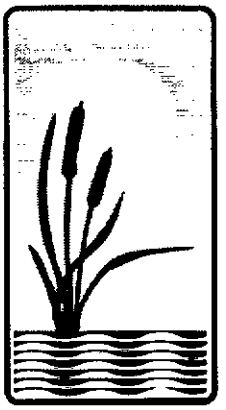
- Acquire land to develop a new park access road directly off old Highway 53, with entrance station and park office.
- Enhancement of the existing creekside trail for use by the disabled.
- Develop a maintenance facility/employee residence area.
- Upgrade existing day-use parking area and increase capacity to 75 vehicles.
- Upgrade car-top boat launch area to small-boat launch ramp and provide docking for approximately 20 boats.
- Provide day-use picnic area.
- Develop a 35 to 50-unit family campground and implement an oak-woodland revegetation program to provide shade and visual screening.

(No concessions are proposed).

Operations

- Encourage volunteer participation at the park.
- Maintain cooperative relationships with the Native American community, National Audubon Society, Anderson Marsh Interpretive Association, and the Cultural Heritage Council.

Introduction



Introduction

Purpose

This general plan provides guidelines for long-term management and development of Anderson Marsh State Historic Park. Prepared by the California Department of Parks and Recreation to satisfy requirements of Public Resources Code Section 5002.2, its approval by the California State Park and Recreation Commission is required prior to any development that would constitute a permanent commitment of natural or cultural resources.

The plan summarizes the available information about the park, documenting the planning process and the relevant data used in making land use decisions and specific management and development proposals. As conditions change, the plan may be reviewed and updated as necessary to responsibly guide departmental actions at the park. The plan, however, is not meant to provide detailed plans for site development, resource management, or park operation and maintenance. Overnight, day-use, and parking capacities indicated by the plan are approximate only, indicating maximum capacity, and may be less when specific site plans are prepared for funding and implementation. Details of resource management are left for inclusion in specific resource management programs that will be prepared at a later date.

Discussions about land not owned by the Department of Parks and Recreation have been included. These lands represent potential acquisition opportunities, based on available data. However, the discussions are intended for planning purposes only and do not represent an intention or commitment for acquisition.

General Plan Outline

The plan is made up of the following elements which reflect the department's responsibility to fulfill certain goals:

The **Resource Element** evaluates the natural and cultural resources of the park and sets management policies for protection, restoration and use of these resources.

The **Interpretive Element** proposes programs and facilities for public information and interpretation of the park's natural and cultural resource values.

The **Concessions Element** summarizes opportunities to provide appropriate goods or services to the public through concessions in existing or proposed facilities.

The **Operations Element** describes specific operational and maintenance requirements and guidelines unique to the park.

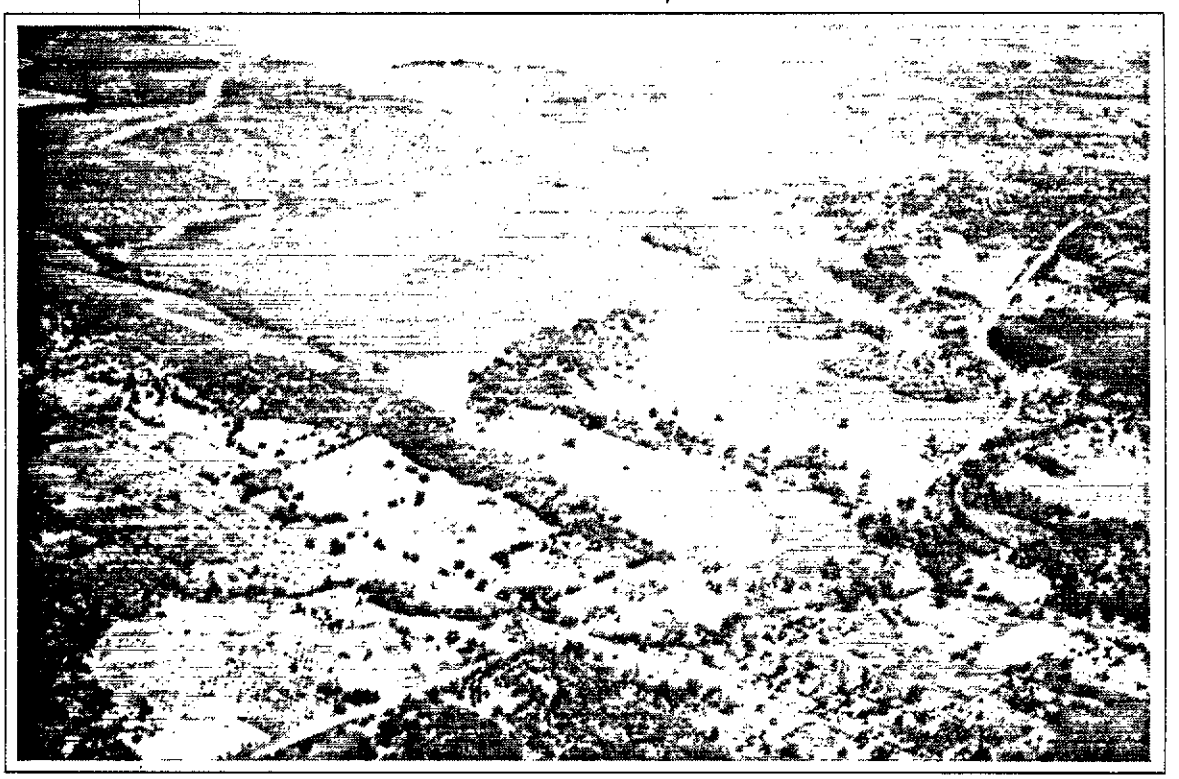
The **Land Use Element** describes current land uses and relevant planning issues, determines proposed land uses consistent with the resources and unit classification, and outlines land use objectives and recommendations.

The **Facilities Element** describes current facilities and proposed development to enhance public recreational experiences and enjoyment of the park resources and values, and establishes priorities for park development.

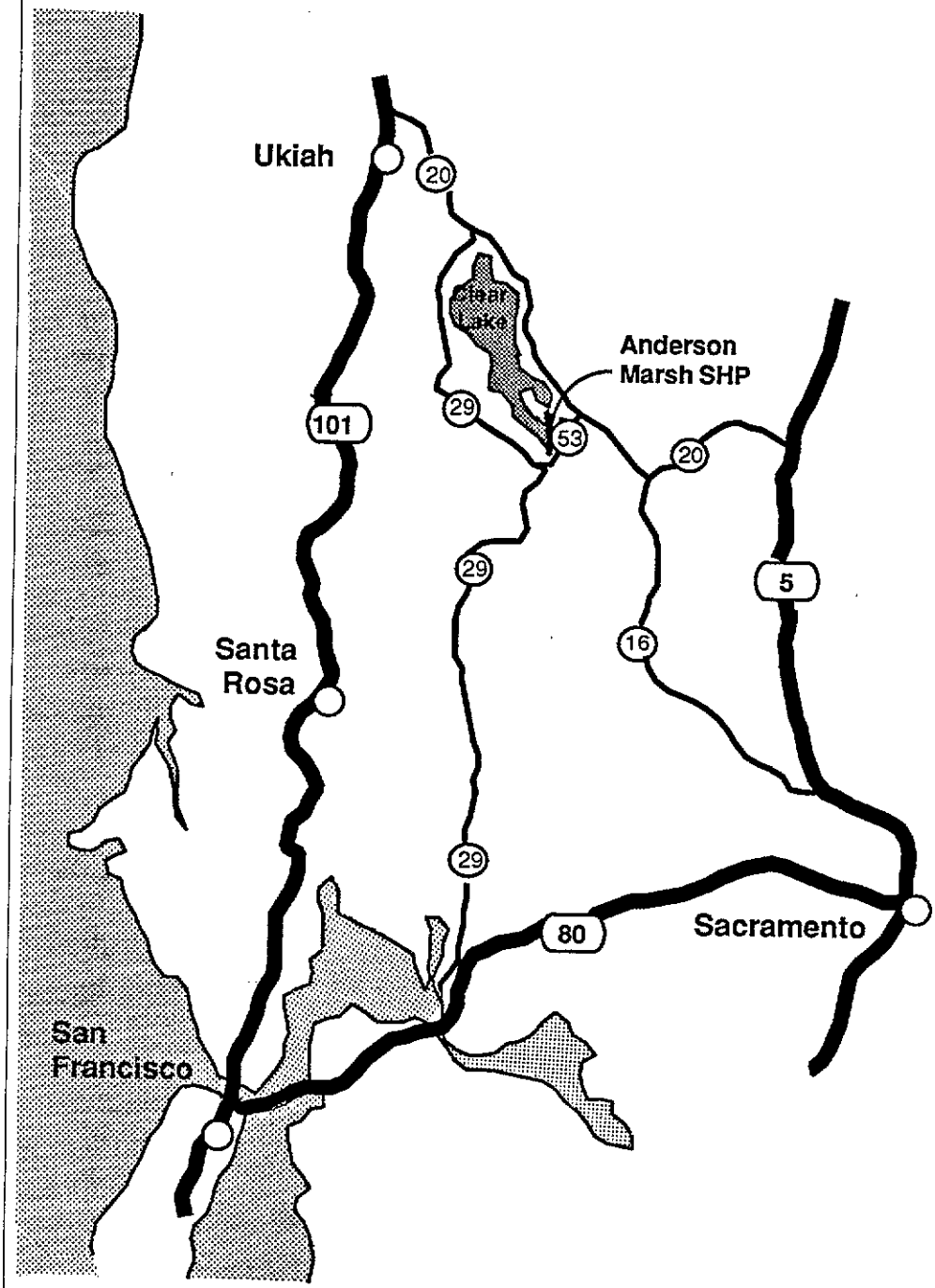
The **Environmental Impact Element** serves as the Environmental Impact Report required by the California Environmental Quality Act. It assesses environmental effects, and proposes mitigation measures and alternatives.

Unit Identification

Anderson Marsh lies at the southeastern tip of Clear Lake.



Anderson Marsh State Historic Park is located at the southeast corner of Clear Lake in Lake County. Clear Lake is in the northern Coast Range Mountains, between the Pacific Coast and the Sacramento Valley. This location places the unit in the Sierra Foothill and Low Coastal Mountain Landscape Province.



Map 1 - State and Regional Location

A part of Clear Lake is within the unit boundary, including approximately 3,000 feet of lake shoreline. Cache Creek, the Clear Lake outlet channel, flows through the park, accounting for an additional 10,000 feet of shoreline. Several islands are created by the meandering flow of Cache Creek, including Slater Island. The marshlands that comprise about one-third of the unit are also formed by lake and stream waters.

The nearest communities are the city of Clearlake, adjacent to portions of the unit's north and east boundaries, and the town of Lower Lake, less than a mile from the southeast corner of the unit. Other surrounding private property is generally rural or undeveloped.

Principal vehicle access to the unit is via State Highway 53, which bisects a part of the extreme eastern side of the unit and serves the park's Anderson Flat area (see Location Map). The unit can also be reached from residential streets in the City of Clearlake where undeveloped roads enter the unit to the north of Cache Creek. State Highway 29 connects Lower Lake to other communities on the west side of Clear Lake, including Kelseyville, 16 miles from the unit, and Lakeport, the county seat, 22 miles away. Sacramento is about 95 miles to the southeast, and San Francisco is about 130 miles to the southwest.

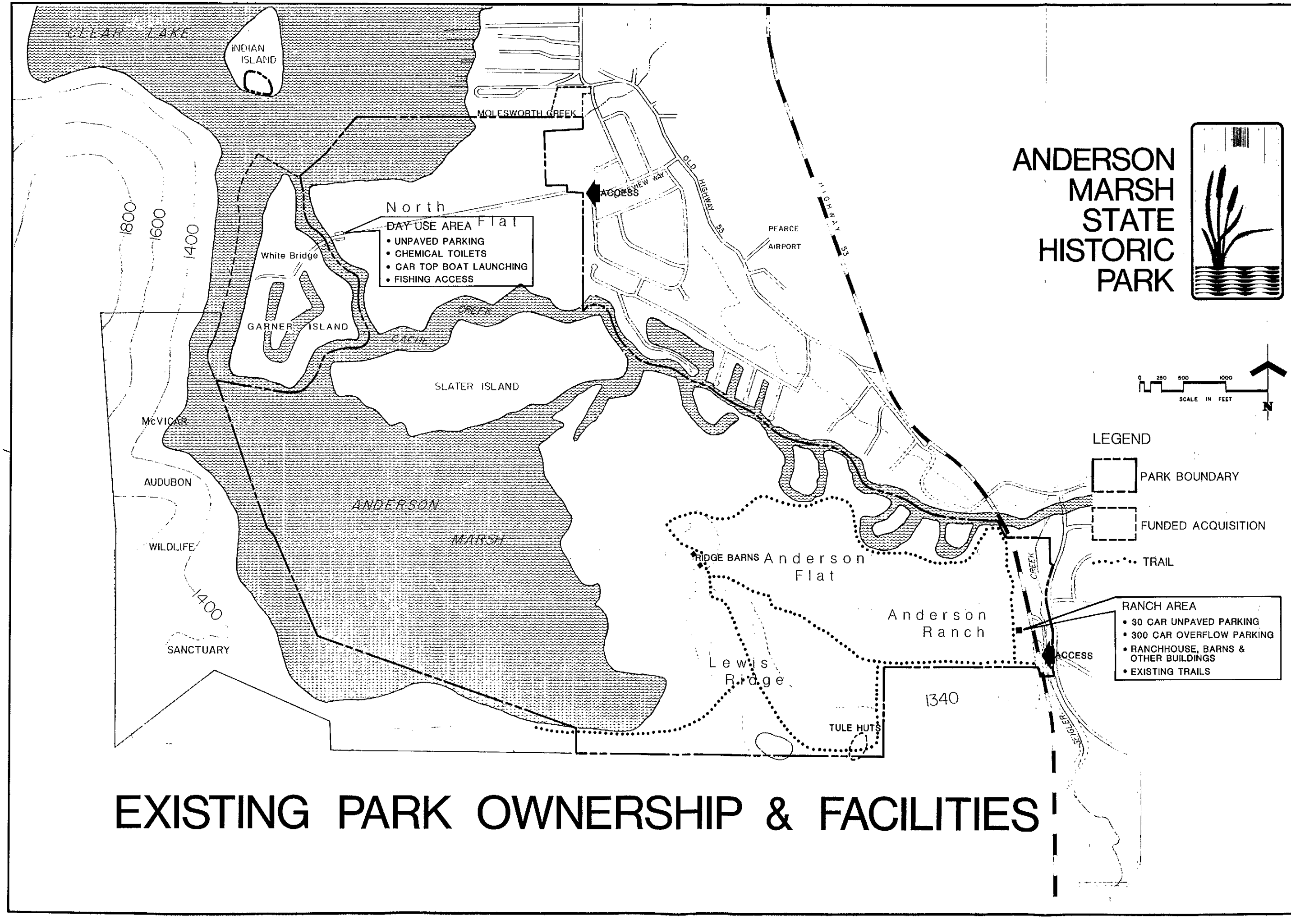
The State Park System unit nearest to Anderson Marsh State Historic Park is Clear Lake State Park, located on Soda Bay 20 miles to the west.

Approximately 871 acres are currently in state ownership (see Existing Park Ownership and Facilities Map). Several other parcels, including Garner Island, have been funded for acquisition. A conservation easement has been secured on Indian Island for a 1.5-acre parcel containing archeological sites.

The National Audubon Society shares a common property line with the unit on the west boundary, managing the McVicar Wildlife Sanctuary as a bird sanctuary. Much of this joint property line is seasonally inundated.

The Planning Process

The planning process included a comprehensive evaluation of the roles various agencies are playing in providing recreational opportunities and in preserving significant cultural and natural values in this area of the state. Current recreational patterns of the many varied segments of the state's population were also examined in order to identify specific needs to be met by the park.



ANDERSON MARSH STATE HISTORIC PARK

EXISTING PARK OWNERSHIP & FACILITIES

DESIGNED
DRAWN 5/87
CHECKED

DATE
REVISIONS

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

ANDERSON MARSH STATE HISTORIC PARK
EXISTING PARK OWNERSHIP & FACILITIES
GENERAL PLAN - INTRODUCTION

DRAWING NO. 23060

Map 2

This information, coupled with detailed resource inventories and public comments, provided the foundation for the various development and management proposals contained in this document.

• Regional Recreation Profile

Anderson Marsh State Historic Park, located in northern California 130 miles northeast of San Francisco, is in an area with great recreational appeal that draws visitors from across the nation. The area offers a diversity of recreation opportunities with just about something for everyone....coastal beaches, lakes, rivers, bays, redwood forests, mountains, wilderness areas, historic interest, and moderate climate.

This regional recreation area is located in the California Outdoor Recreation Resource Plan's (CORRP) District 1, which includes four counties (Del Norte, Humboldt, Mendocino, and Lake) and extends from the Gualala River at the southern boundary of Mendocino County to the Oregon border. The district has about 1 percent of the state's population. Of the 9,473 square miles in the planning district (about 6 percent of the area of the state), one-third is in public ownership. The U.S. Forest Service, Bureau of Land Management, and National Park Service make nearly 90% of the public land in the district available for public recreation. In 1980, over 80 percent of the 68 million outdoor recreation days in the district were spent by nonresidents. A major influx of visitation comes from the San Francisco Bay Region.

The district's population is generally concentrated along Highways 1 and 101. There are 13 incorporated cities in this district; almost two-thirds of the district's population live in unincorporated areas that, for the most part, lack traditional urban recreation services.

Recreation tourism is the second major industry in Planning District 1. Northwestern California is abundant in areas that are historically rich and scenically beautiful. The scenic beauty of the area, particularly the large expanses of privately managed timberlands and the unique resources of the numerous state parks, is the primary base for recreation and tourism. The wealth of the north coast fishery resource and, to a lesser extent, the hunting resources, are also important bases for the recreation industry.

The coastal areas offer opportunities for sunbathing, beachcombing, picnicking, fishing and camping. In addition, lakes, forests, the Klamath Mountains and the King Range provide swimming, hiking and backpacking. Hunting of big and small game, waterfowl and pheasant is possible. The major

boating attraction in Planning District 1 is Clear Lake; most powerboating, waterskiing, and boat fishing at Clear Lake are done by residents of the Bay Area. Lake Mendocino provides powerboating and sailing oportunities, primarily for local residents. Throughout the year, there are excellent opportunities for sightseeing and driving for pleasure.

Within Lake County, projections by the California Department of Parks and Recreation to the year 2000 show picnicking with the highest projected recreation demand out of 28 activities. The next highest projected demands are for nature appreciation, lake and stream fishing, visiting scenic areas, camping, hiking and backpacking, and visiting cultural sites. (Data from PARIS-Park and Recreation Information System.)

• Recreation Participation at the Unit

Anderson Marsh State Historic Park reported an annual attendance of 11,000 visitors in 1985-86, mostly residents of Lake County or the greater San Francisco Bay area. The most popular recreation activities at the unit include birdwatching, nature study/observation, walking/hiking, picnicking, fishing, ranch tours, archeology study, and special events. Visitation has doubled each year since the park's acquisition in 1982.

How many people will come to Anderson Marsh State Historic Park next year or 20 years from now? Although a specific answer to this question is impossible to determine, there are a number of factors that indicate there will be an increasing demand for park lands and facilities.

During the last 30 years, the state has grown tremendously. Between 1955 and 1985, California's population doubled, while attendance in the State Park System has grown ten-fold, from 7 million to almost 70 million visitors annually. In 1985-86, visitor attendance at state park units in Planning District 1 was about 4.5 million. Increased leisure time, higher family incomes, automobiles, greater urban populations, and a younger population have contributed to a higher general recreation participation rate.

In the Clear Lake area, in particular, its attraction as a location for retirement and vacation homes has created a higher leisure population with more time for recreation activities. The 20-year population growth of Lake County is projected to be far above the statewide average. By the year 2005, the county population will grow from 48,300 to 90,900, an increase of 88 percent, with most of the growth close to Clear Lake. Population increase within the entire Planning District 1 is projected at 30 percent. Because of these factors, there will probably be continued growth in recreation use at Anderson Marsh SHP.

• Public Involvement

The public played a major role in creating this plan. From the outset, the planning team attempted to identify all parties interested in or affected by this plan, and to encourage their participation in the decision-making process. We began planning before important land use decisions were made, and we evolved a final plan step-by-step, with active public involvement. Although attendance at our workshops was moderate, participation was enthusiastic and particularly helpful.

Our first step was to reach as many interested people as possible, through direct mail and newspaper announcements requesting participation in the planning job. We developed an active mailing list of more than 450 names, and distributed more than 250 mail-in user surveys at the park. The user survey allowed us to target the broad areas of visitors' concerns, and gave us people's general philosophies about what kind of place the park should be. (See Appendix A for user surveys and newsletters).

During this initial period, we gathered information on the park itself, developing an information base on the cultural and natural resources of the area, the character of the communities and people who live in them, the constraints of the land and of the law, and projections of future changes. The information base provided us with the knowledge to make the assumptions upon which this plan is based.

The planning team held public workshops at three critical stages of the plan's evolution. The first meeting was held June 12, 1986 in Clearlake. The purpose of the workshop was to present the Resource Element and to allow us to communicate with interested groups, individuals, and agencies to learn more specifically about their needs and concerns and the issues they felt should be dealt with. Ideas flowed freely. About 40 park users, adjacent property owners, business and government people, and interested individuals completed workbooks and discussed the future of the park with each other and the planning team.

Newsletter 2 reported the ideas and issues that resulted from the workshop and requested continued public participation at the next workshop, held in September 1986. Between the first and second meetings, the planning team took the wealth of information and ideas that had been collected and synthesized it into a series of alternative plans, plans which reflected the range of ideas and park philosophies we learned from the user surveys and letters and at the first public workshop.

We developed three alternatives for the park, with concepts ranging from proposals for interpretation but no recreation facilities, to proposals for relatively intense recreation use and

development. As a result of the newsletter and television, radio, and newspaper exposure, many people attended the September workshop and participated in evaluating the alternatives and in recommending their ideas.

We then began the task of taking the many proposals we had received in the second workshop and in the mail and developing them into a single plan for Anderson Marsh State Historic Park. Using workshop recommendations as a guide, and respecting the planning assumptions established earlier by existing conditions, we made decisions about park use philosophy and developed the objectives, recommendations, and facility proposals of the final plan.

The single plan was then announced in the third newsletter and the public media and was presented for evaluation at a third public meeting in Clearlake, January 8, 1987. The plans were reevaluated after the meeting, appropriate changes were made, and the preliminary plan and environmental impact report were issued in compliance with CEQA (California Environmental Quality Act) for review and comment.

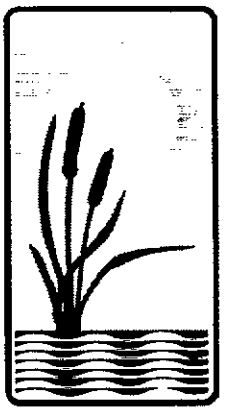
Final action on approval of the plan will be taken by the State Park and Recreation Commission in public hearing, after completion of the environmental review process.

• Involvement of Other Agencies

Numerous contacts were made with the following agencies that have, or might have, an interest in the General Plan:

California Department of Fish and Game
California Department of Transportation
City of Clearlake
Highland Water Company
Lake County (Planning and Public Works)
Lake County Special Districts
Lake County Transit
Lower Lake County Waterworks District No. 1
Pacific Bell Telephone
Pacific Gas and Electric
Sonoma State University
U.S. Army Corps of Engineers

Resource Element



Resource Element

In compliance with state law* the Resource Element sets forth long-range management objectives for the scenic, natural, and cultural resources of the unit, and specific actions or limitations required to achieve these objectives.

The Resource Element for Anderson Marsh State Historic Park also identifies specific resources, their sensitivities and physical constraints, and establishes department guidelines for acceptable levels of use and development with respect to these values.

Resource Summary and Evaluation

The following resource information is a summary and evaluation of more detailed data contained in the Resource Inventory for the unit, on file with the department in Sacramento.

- **Natural Resources**

Topography

Anderson Marsh State Historic Park lies within the California Coast Ranges geomorphic province. It is located on the eastern slopes of the northern Coast Ranges, in the Clear Lake basin.

The Clear Lake region is an area that is generally mountainous, characterized by northwest-trending ridges and valleys. The Clear Lake basin consists of a flat-lying area situated between two mountain ranges; on the west the Mayacamas Mountains and on the east the Bartlett Mountains. On the basin floor is Clear Lake, the largest natural freshwater lake completely within the boundaries of the state of California.

Elevations in the basin range from approximately 1,320 at the lake surface to over 4,000 feet on the surrounding mountaintops. Prominent features include Clear Lake, Cow Mountain (elevation 3,924 feet), and Mount Konocti (elevation 4,300 feet). Anderson Marsh is located in the southeastern end of the basin floor at Clear Lake's outlet into Cache Creek. The topography of the unit area is mostly flat. Elevations range from about 1,320 feet at the northwest boundaries to about 1,400 feet on top of Lewis Ridge (also referred to as Anderson Ridge). Over 90 percent of the unit has slopes of 3 percent or less. Only Lewis Ridge, located in the southern portion of the unit, and the eastern end of Slater Island have slopes of 3 to 8 percent.

* Section 5002.2, Subsection (b) of Division 5, Chapter 1 of the Public Resources Code and Chapter 1, Section 4332, Title 14, California Administrative Code.

Meteorology

Northwestern California has a Mediterranean climate with cool, wet winters and hot, dry summers. A dominating weather factor is the semipermanent high pressure area of the north Pacific Ocean. This pressure center moves northward in summer holding storm tracks well to the north, and as a result northwestern California receives little or no precipitation during that period.

Anderson Marsh, located in the eastern portion of the Coast Ranges in Lake County, shares the hot, dry summers and cool, wet winters that are typical of the Sacramento Valley. The unit's 1,320 to 1,400-foot elevation and mountainous location produce maximum and minimum temperatures about 2ºF lower that those at inland locations near sea level at the same latitude. Annual precipitation at the unit is about 5 inches higher that at comparable valley locations.

The community of Clearlake Park (now incorporated along with Clearlake Highlands into the City of Clearlake), situated approximately 2.5 miles north of the unit, has winter temperatures generally ranging from slightly below freezing to a high of about 57ºF. Winter temperatures as low as 7ºF and as high as 86ºF have been recorded. Summer temperatures generally range from about 55ºF to around 91ºF. Extremes of 34ºF and 110ºF have been recorded during the summer.

Mean annual precipitation at Clearlake Park totals about 22 inches. The bulk of this precipitation, about 60 percent, occurs during the winter, in December, January, and February. Spring rains, from March through early June, provide about 20 percent of the precipitation and prolong the period of vegetative growth into mid-summer. July, August, and early September are usually dry, and as available soil moisture is used up, herbaceous vegetative growth ceases. Fall rains in late September through November, which account for about 20 percent of the annual precipitation, recharge the soil moisture and set the stage for a new cycle of vegetative growth.

The small variation in topographic relief and exposure in most of Anderson Marsh State Historic Park, together with the proximity to the large water surface area and volume of Clear Lake, leads to a more uniform temperature regime throughout the lowland portion of the unit. Anderson Marsh and Anderson Flat generally have milder temperatures than the surrounding country.

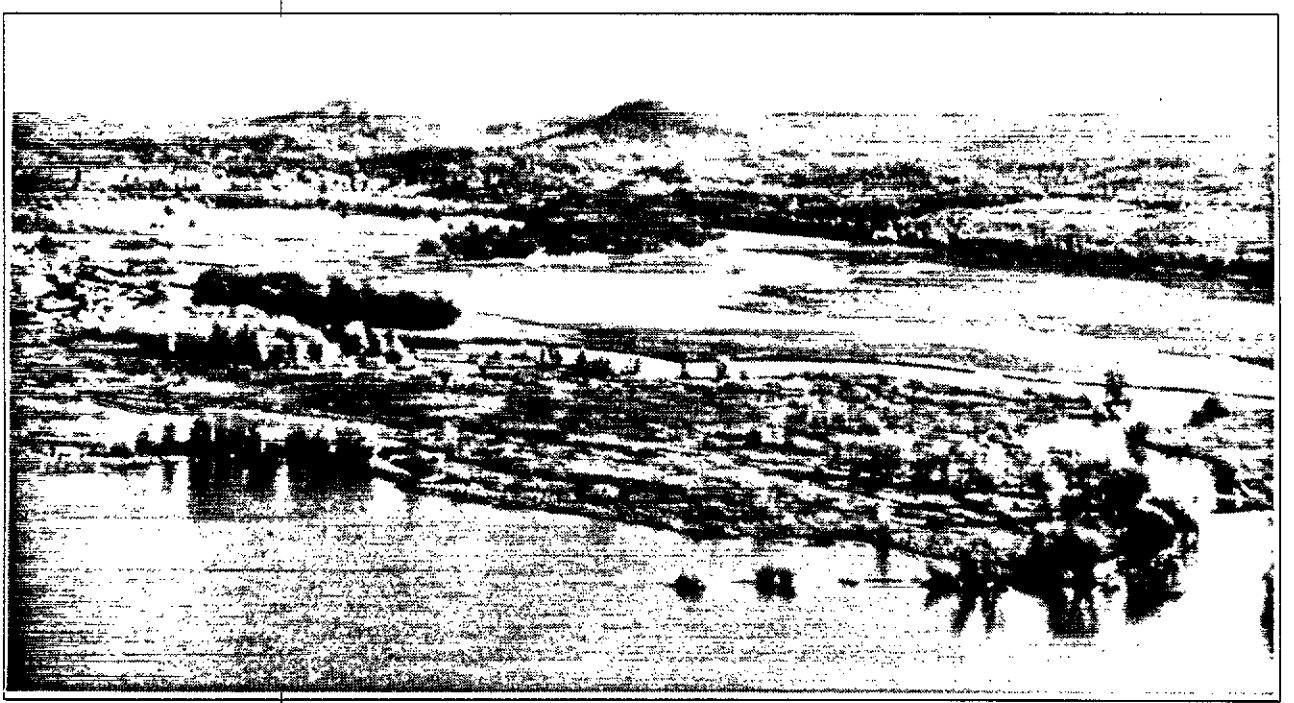
The Clear Lake air basin is rather small, and is composed of a complex topography which make the dispersion of pollutants difficult under inversion conditions. At present, overall air quality is relatively good.

Hydrology

Anderson Marsh State Historic Park lies entirely within the Upper Cache Creek Hydrologic Area. This watershed, with a total drainage area of 528 square miles, encompasses Clear Lake and its tributaries and Cache Creek upstream from Clear Lake Dam. The watershed is drained by Cache Creek, which flows east-southeast to the Capay Valley and the Sacramento Valley, and eventually empties into the Yolo Bypass.

The unit, located at the lower end of Clear Lake at the lake's outlet into Cache Creek, makes up only a small portion (less that 3 percent) of the Upper Cache Creek watershed area. Surface hydrologic features within the unit's boundaries include a small stretch of Clear Lake and its shoreline, most of Anderson Marsh, and portions of Cache Creek and Seigler Creek, a minor tributary to Cache Creek. There are also four oxbows (old stream meander loops) of Cache Creek within the unit. The present main Cache Creek channel was constructed by dredging.

Downstream from the unit on Cache Creek (approximately 5 miles downstream from Clear Lake) is the Clear Lake Dam. The stretch of Cache Creek from Clear Lake down to the dam is often called the Clear Lake Outlet Channel (or Cache Creek Outlet Channel). All surface water flows from Clear Lake are discharged through this channel.



The unit's surface water features include portions of Clear Lake (foreground), Anderson Marsh (right middleground), Cache Creek (middleground), and Seigler Creek (not visible in photo).

The lake's level is measured in reference to the "Rumsey Gage " at Lakeport. Zero on the Rumsey Gage is equal to 1,318.65 feet above mean sea level, the historic level at which water ceased flowing from the lake. A full lake, by definition, is reached when the lake measures 7.56 feet on the Rumsey Gage.

Since the construction of Clear Lake Dam in 1914, the level of Clear Lake has been regulated through seasonal water releases at the dam for irrigation purposes. The dam is owned and operated by the Yolo County Flood Control and Water Conservation District. The amount of water released must conform with the Gopcevic Decree (1920) and the Solano Decree (1978), which set restrictions on the level at which the lake is to be maintained, basically between zero and +7.56 feet on the Rumsey Gage.

High lake levels occur in late winter, spring, and early summer; low levels during the fall. During the year, fluctuations in the lake level occur mostly during the irrigation season. Water releases at the dam cause annual fluctuations of about 7 feet.

Flooding - Approximately 6 percent of the Anderson Marsh area is inundated when the lake level is 1.35 feet on the Rumsey Gage; approximately 68 percent is inundated when the lake is near full at 7.35 feet.

Extensive flood problems exist in this region. Historically, all major floods have resulted from general rainstorms that characteristically have peaks producing large quantities of water within short periods of time. The flood season extends from November to March.

Flooding around the rim of Clear lake occurs when inflow to the lake greatly exceeds the discharge capability of the Clear Lake Outlet Channel for long periods of time. High flows in the outlet channel are primarily restricted by the physical nature of the channel itself, including the presence of the obstructive Grigsby Riffle, and not necessarily by the Clear Lake Dam.

The Bemmerly Decree (1940) prohibits any alteration of the outlet channel, such as widening or deepening, so as to increase the flow of water from Clear Lake into Cache Creek. This decree came about after dredging work was begun in the channel in 1938.

Approximately 82 percent of the Anderson Marsh area is within the 100-year floodplain. The 100-year flood elevation has been determined at 12.0 feet on the Rumsey Gage, or 1,330.65 feet Mean Sea Level Datum.

Groundwater resources in the unit are present in the Lower Lake Valley Groundwater Basin, with a storage capacity of 4,000 acre-feet. It has not been determined how much of this capacity

is usable. Development of this basin for domestic and irrigation use is limited.

Significant water quality problems in the watershed are nuisance algae growth in Clear Lake, sediment loading, and high boron content. Dense algae growth occurs thoughout the lake in the spring and fall and has been most prominent in the lake's lower arm, in which the unit is located. Algal blooms in the lake cause an undesirable appearance in the color of the water, unsightly scums on the water, and odor problems. Decomposition of large algae masses also depletes the water's oxygen supply.

Sediments flowing into the lake have increased as land around the lake has been cleared for agricultural and urban development.

Water in Clear Lake, and especially in the Clear Lake Outlet Channel, has a high boron content, which is more attributable to the natural lake circulation pattern than to specific boron-laden inflows.

Geology

Anderson Marsh State Historic Park is located in the northern Coast Ranges geomorphic province. Although the province is predominately comprised of Jurassic-Cretaceous metamorphosed rock of the Franciscan Complex, Anderson Marsh is set in an area of young volcanic rocks, lake deposits, and alluvium. Clear Lake's waters cover a substantial percentage of the unit; however, some interesting outcrops do protrude from the lake and through the alluvium (Indian Island, Slater Island, and Lewis Ridge).

Rock outcrops are typical geologic features on Slater Island and along Lewis Ridge.

Sediments of the Lower Lake Formation are the

oldest rocks to crop out in the unit along the eastern end of Lewis Ridge. The formation is more than 150,000 years old, and is represented by calcareous siltstone, limestone, pebbly sandstone, diatomite, and tuff. Three members of the Clear Lake Volcanics occur within the unit boundaries: Dacite of Cache Creek, Dacite of Thurston Lake, and Olivine Basalt of Roundtop Mountain. Quaternary alluvium is the most widespread of the geologic deposits in the Anderson Marsh area. The alluvium is transported unconsolidated material deposited by Cache Creek and formerly higher levels of Clear Lake.

The youngest faults in the region trend northwest or north-northwest, parallel and subparallel to the general structural grain of the Coast Ranges and the San Andreas fault system. These general trends are cut by short faults, roughly perpendicular to the regional trends.

The Clear Lake topographic basin is delineated in part by faults that trend north, north-northwest, and west. The tilting of young lake and stream sediments to the north and the submarine topography of the lake suggest that north or northeastern tilting of the basin has continued to Recent time, as a result of relative uplift, to the south. Seismic activity in the areas lends support to the theory of ongoing deformation.

In the Anderson Marsh area, Clear Lake Volcanics unconformably rest on older rocks of the Franciscan Complex and Great Valley Sequence, interbedded with lake and stream deposits of the Lower Lake and Cache Formations. Clear Lake Basin was formed from a combination of tectonic and volcanic processes. Faulting in the region may be primarily related to the San Andreas system with an overprint of faulting related to volcanic processes.

The sequence of geologic activity most pertinent to the Anderson Marsh area is:

1. Deposition of Great Valley Sequence and Franciscan Complex in the Cretaceous, with subsequent metamorphism and shallow thrust faulting.
2. Block faulting.
3. Deposition of the Lower Lake Formation, as lake deposits on eroded surfaces of the Great Valley Sequence, millions of years later.
4. Building of the Clear Lake Volcanics highland during Pleistocene time, with continued Lower Lake Formation deposition, volcanic eruptions and flows, and possible caldera and fault-controlled subsidence.
5. Uplift (faulting and folding) and the cessation of deposition of the Lower Lake Formation.
6. Eruption of Roundtop Mountain.

7. Erosion and deposition of lake and stream deposits, associated with the post-glacial melting following the Wisconsin glacial period. Widespread alluvial deposits probably originated during wetter climates, when runoff and lake levels were higher.
8. Tectonism in the form of faulting and seismic activity, which continues to be a significant factor in the southern Clear Lake Basin. The potential for renewed volcanic activity to the north still exists.

Soils

Anderson Marsh State Historic Park is located in California Soil Region I, Northwestern Coast Ranges. The upland soils of Region I are gray-brown, alfisolic (high base status, forest soil) in character. Valley soils are azonal (having a weakly developed profile), with an acid reaction, and are low in available phosphorus.

Most of the soils at Anderson Marsh are atypical for Region I. The upland soils are derived from volcanic parent material under oak woodland, or alluvial material under oak-grassland, in constrast to the typical sedimentary under coniferous forest. Valley soils at Anderson Marsh are somewhat similar to prairie soils with a humus-enriched surface horizon.

The Soil Conservation Service, U.S. Department of Agriculture (SCS), is currently conducting a detailed soil survey of Lake County. The following discussion is based on field survey information provided by the Lakeport Office of SCS and does not include original field work by department staff.

Anderson Flat, alluvial soils.

Three of the 10 soil orders of the United States are represented at Anderson Marsh (alfisols, vertisols, and mollisols). Six soil series, one soil phase, and the tule marsh hydromorphic soil have beeen mapped at Anderson Marsh. Additionally, two soil compexes were delineated (a soil complex is a close admixture of two or more series).

The wide variability of soils at Anderson Marsh is best explained by dynamic geologic and geographic events. Local intrusion of volcanic rock into the sedimentary formations of the region, changes in the level of Clear Lake on a pedologic time scale, climatic changes, differences in relief, and differences in vegetative cover have resulted in localized differentiation of the soil-forming factors (parent material, relief, climate, biota, and time).

The following information including terms, ratings, and interpretations about soil constraints on recreation, buildings, and roads has been prepared by the SCS and is based on the general properties of the individual soil series. Conditions at a specific site may vary somewhat because of the variation of properties within a soil series. By SCS definition, slight soils constraints are those conditions warranting only normal precautions for development; moderate constraints require additional investigation of specific development sites by competent professionals and extra precautions in planning and development; and severe constraints require close investigation and planning by competent professionals to avoid high development costs or to make alternate site selections. These constraints ratings, included here as a guide to land use planning and future design considerations, do not necessarily prohibit development but rather indicate potential problems and the need for corrective measures in the event of development.

The soils of the north section of the unit present severe constraints to camping and moderate constraints to picnicking and trails. Problems include seasonal inundation of low-lying areas, occcasional flooding of higher areas, and dust conditions. Constraints are severe for buildings and moderate for roads. Problems include low strength and high shrink-swell potential, in addition to the aforementioned flooding.

The soils of Slater Island present severe constraints for camping, picnicking, trails, buildings, and roads. Problems include seasonal inundation, shallow depth, and rock outcrops.

The soils of Anderson Flat present moderate constraints to trails and picnicking because of dust, and severe constraints to camping because of occasional flooding. Constraints are severe for buildings and moderate for roads because of low strength and occasional flooding. The lower-lying soils in the northerly portion of the flat have a high shrink-swell potential.

The soils of Lewis Ridge present severe-to-moderate constraints for camping, moderate-to-severe constraints for picnicking, and slight-to-moderate constraints for trails. Problems include shallow depth to rock throughout the area, rock outcrops, rocks and boulders in the soil, high shrink-swell potential, slow

permeability, rapid runoff, and moderate-to-high erosion potential. The soils on the west slope of Lewis Ridge are subject to compaction when wet. Constraints on Lewis Ridge are severe for buildings and moderate for roads; problems include rock outcrops, shallow depth, high shrink-swell potential, and low strength.

Some accelerated erosion is ocurring along streambanks and shoreline areas within the unit. Unnatural causes include the Clear Lake Dam which artificially maintains higher lake levels during dry seasons and prolongs runoff during wetter seasons, and wave action from power vessels.

Plant Life

The vegetation of Anderson Marsh and the adjoining uplands has been classified into four habitat types and seven plant communities:

Habitat Type	Community	% Park Coverage
Riparian	Valley Oak Forest	2.0
	Cottonwood-Willow Woodland	2.5
Freshwater Marsh	Tule Prairie	19.0
	Sedge-Rush Prairie	42.0
Oak Woodland	Blue Oak Woodland	3.0
	Valley Oak Woodland	4.0
Grassland	Nonnative Grassland	11.0

The valley oak forest, the cottonwood-willow woodland, and the freshwater marsh vegetation are riparian ecosystems. They comprise the majority of the unit. The communities are well developed and appear to be relatively little disturbed. Riparian systems are important to the hydrology and wildlife of an area and have declined rapidly in their extent in the region and state. All three communities are listed as "special elements" by the Department of Fish and Game, Natural Diversity Data Base. The Anderson Marsh valley oak riparian forest, for example, is one of only 26 known occurrences in the state.

The riparian vegetation type is located streamside on Cache and Seigler creeks and on the southern bank of the marsh. The communities are multilayered and support a high diversity of species. The canopy coverage ranges from 75 to 100 percent. The valley oak forest has a canopy dominated by valley oak (*Quercus lobata*), with associated species of California buckeye (*Aesculus californica*), California bay (*Umbellularia californica*), walnut (*Juglans hindsii*) and an occasional cottonwood (*Populus fremontii*). The understory shrubs include

snowberry (*Symphoricarpos* sp.), California wild rose (*rosa californica*), and blackberry (*Rubus ursinus*). The cottonwood-willow woodland is dominated by cottonwoods and willow (*Salix* spp.) with a few associated valley oaks. The understory shrubs are the same as those found in the valley oak forest.

Riparian habitat is typified by this cottonwood-willow woodland along Cache Creek.

The freshwater marsh plant communities follow two major zones in the marsh: permanently inundated and seasonally inundated. The tule prairie, in the permanently inundated open water of the marsh, is almost a monoculture of the common tule (*Scripus acutus*). The sedge-rush prairie covers the largest percentage of ground of any of the communities. The majority of the northern sector and the lowlands between Anderson Flat and the creek and marsh edges both support this seasonally inundated community. Sedges (*Carex* sp., *Cyperus* sp.) and rushes (*Juncus* sp.) dominate. Associated species include annual grasses and clovers (*Trifolium* sp.).

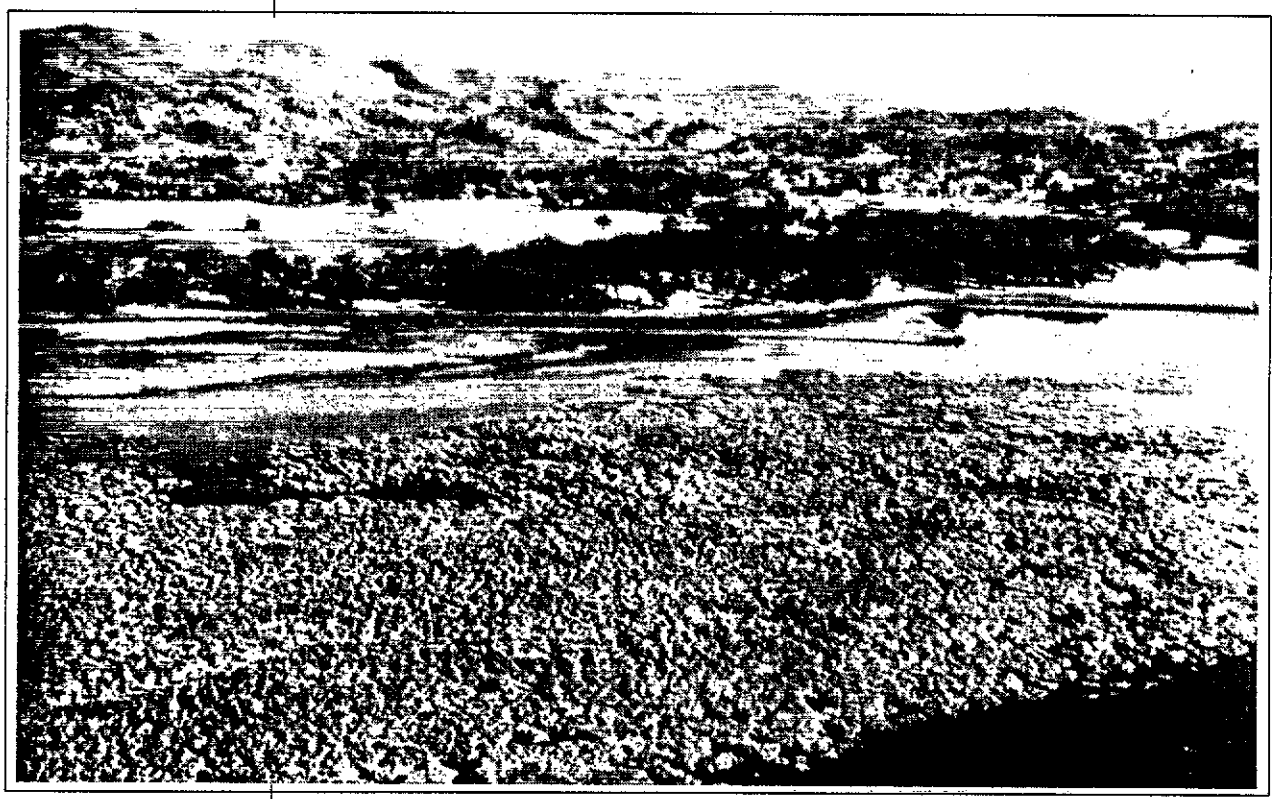
The oak woodland vegetation has been divided into two communities based upon the dominant trees. The valley oak woodland and the blue oak woodland are located on Lewis Ridge (Anderson Ridge). The valley oak woodland occupies the lower slopes where the soils are deeper and more moisture is available. The blue oak woodland forms dense stands on the steeper slopes of the ridge. Both woodlands have typical valley grassland understories with many colorful spring wildflowers.

Anderson Flat, the high ground of the northern sector, and the southern area of the unit are nonnative annual grasslands. Introduced annual grasses dominate, including slender wild oat (*Avena barbata*), Italian ryegrass (*Lolium multiflorum*) and foxtail (*Hordeum jubatum*). The grasslands have been subjected to many past disturbances, including grazing and cultivation.

In the valley oak forest and the valley and blue oak woodlands, both blue oak (*Quercus douglasii*) and valley oak regeneration have been noted. Very little natural regeneration of deciduous oaks is occurring in California; therefore, the presence of seedlings is significant. On the west bank of Seigler Creek there is what appears to be a pulse recruitment of valley oaks. Approximately 200 even-aged saplings are scattered along the edge of the valley oak forest. Seedlings have been found and mapped in four other locations in the unit.

No rare and/or endangered plant species are known to occur at Anderson Marsh State Historic Park. This includes species listed by the state and federal governments and the California Native Plant Society.

The Anderson Marsh flora includes many exotic species. The understory of the oak woodlands and the nonnative grasslands have been subjected to grazing and cultivation in the past. Natural fire suppression has also been a factor in the composition transition to exotic species. Water, acting as a seed dispersal mechanism, probably has spread many exotics from elsewhere on Clear Lake to Anderson Marsh.



Three of the unit's four habitat types are shown here: freshwater marsh (foreground), oak woodland (on Lewis Ridge, middleground), and grassland (behind Lewis Ridge).

Animal Life

Anderson Marsh is recognized as the most important remaining wetland habitat at Clear lake. This 560-acre wetland now represents over one-half of the remaining tule marsh habitat at Clear Lake; therefore, it is the single largest fish and wildlife production area in the Clear Lake basin.

Wetlands, such as tule marsh, and riparian woodlands are extremely important for fish and wildlife reproduction, and are thus recognized as two of the most critical habitats needing preservation in California. Wetlands are very important as forage and nursery areas for many fish, marsh birds, waterfowl, and amphibians. Riparian habitat provides food sources (especially insects) and vital roosting, nesting, and escape cover for terrestrial species.

Avifauna are the most diverse group of vertebrate animals present at Anderson Marsh. A 1983/84 study by Dr. Paul H. Baldwin (Friends of Anderson Marsh) reported 152 bird species there. It is highly probable that up to 70 percent of the birds common to Anderson Marsh during spring use these habitats to nest and raise young.

Biotic Communities - Within the unit at Anderson Marsh are six biotic communities: open water, emergent vegetation, marsh, riparian woodland, oak woodland, and grassland. Open water, emergent vegetation, marsh, and riparian woodland comprise the wetland habitat, while oak woodland and grassland make up the terrestrial environment.

Most animal species have a preference for one particular habitat type, but are also dependent on other types during certain periods of their life cycles. For example, an animal may spend much of its time foraging in one habitat, but require another type of habitat for reproduction. The combinations of various biotic communities, and the interfaces between them, form ecosystems of great diversity and often of great abundance.

Open water -- between 15 and 35 precent of the unit, depending on lake levels and the growth of wetland vegetation -- is essential for resident and migratory waterfowl as a source of resting and feeding areas. Birds commonly associated with open water areas at the unit include osprey, mallard, double-crested cormorant, several species of gulls and terns, swallows, western grebe, and red-winged blackbird. The endangered bald eagle winters at Anderson Marsh, primarily because available open and shallow waters provide a ready source for fresh fish and fish carrion from spawning activities. Spawning carp are abundant here.

Emergent vegetation, approximately 17 percent of the unit at the height of the annual growth cycle, is technically a subclass of the marsh habitat, but is singled out here because of its significance to breeding waterbirds. The dense mat of vegetation that develops above the waterline supports nesting activities, while providing seclusion from most predators. Some of these plant materials are also gathered and carried elsewhere for nest construction. A significant portion of northern California's western grebe population breeds at Clear Lake and appears to prefer this habitat type. Other birds known to breed in the emergent vegetation at Anderson Marsh include pied-billed grebe, mallard, cinnamon teal, ruddy duck, American coot, American bittern, marsh wren, and red-winged, tri-colored, and yellow-headed blackbirds.

Marsh habitat occurs where aquatic and terrestrial habitats meet. The extent of this habitat type at Anderson Marsh varies throughout the year, depending on the stage of annual plant growth and the lake's water level. Between 20 and 45 percent of the unit is marsh habitat. Of the various biotic communities encountered at Anderson Marsh, this habitat type features the largest numbers of individuals, and a significant number of animal species. This is not only indicative of the size of the community, but also of the relative diversity, suitability, and quality of environmental components provided here. Nesting birds of the marsh include most of those mentioned for emergent vegetation, as well as Virginia rail, sora, song sparrow, common yellowthroat, and probably green-backed heron.

With a mixture of shallow water and some terrestrial features, the marsh habitat supports other animals besides birds. These include mammals such as raccoon, skunk, opposum, mink, muskrat, beaver, gray fox, and several bats; reptiles like northwestern pond turtle and aquatic garter snake; and amphibians such as frogs, toads, and salamanders. Although a relatively high proportion of the unit supports marsh habitat, it is vulnerable to many changes that could affect large numbers of individual birds with a primary affinity for this habitat type.

Riparian woodland is also a wetland habitat closely associated with and dependent on a high water table. At Anderson Marsh, riparian woodland, the smallest biotic community, lines the banks of watercourses and the shoreline of Clear Lake and the bay. The diversity and density of the vegetation is a great attraction to many forms of animal life. This habitat supports the growth of abundant microorganisms that form the basis of aquatic and terrestrial food chains. In addition to the attraction of the food source, nesting opportunities are available to a wide variety of fauna. Thus, riparian woodland supports the highest species diversity of the biotic communities found at Anderson Marsh, as well as a high number of individuals.

The value of the limited amount of riparian woodland in the unit (about 4 percent) is demonstrated by its extensive use by a great number of species. Birds at the unit with a primary affinity for riparian woodland include wood duck, red-shouldered hawk, mourning dove, great horned owl, Anna's hummingbird, western wood pewee, willow and western flycatchers, American crow, common raven, plain titmouse, Bewick's wren, American robin, orange-crowned warbler, yellow-breasted chat, black-headed grosbeak, dark-eyed junco, and northern oriole. Mammals, reptiles, and amphibians here include all of those occurrring in marsh habitat, but most mammals are more abundant in riparian woodlands.

Great horned owl in riparian oak forest habitat.

The oak woodland, about 8 percent of the unit, is a drier environment than the habitats mentioned above but supports a variety of wildlife specifically adapted to these conditions. Where the understory includes shrubby species in addition to grasses, there is a greater diversity of wildlife attracted to this vegetation community. A dramatic increase in the number of birds inhabiting oak woodland occurs during the nesting season. Slater Island is particularly suited to nesting, offering the additional advantage of seclusion from human disturbance. The tall valley oaks at the west end of Slater Island provided the only active great blue heron rookery in the unit during the period 1983-85. Tree swallow, great horned owl, Cooper's hawk, several woodpeckers, and other cavity-nesters heavily utilize oak woodland habitat. Black-tailed deer, western gray squirrel, California ground squirrel, black-tailed hare, and most of the mammals mentioned for other habitats spend much of their time in oak woodlands. The rattlesnake and western fence lizard are common reptiles here.

Grassland is the driest habitat at Anderson Marsh. As the growing season advances, seed production attracts many animals. During summer, grassland supports proportionally larger numbers of individuals and species as feeding activities become more important in relation to other activities, since the young now require nourishment. The grassland community expands as water recedes, allowing vegetation and soils to dry. Throughout the year, grasslands occupy between 10 and 35 percent of the unit.

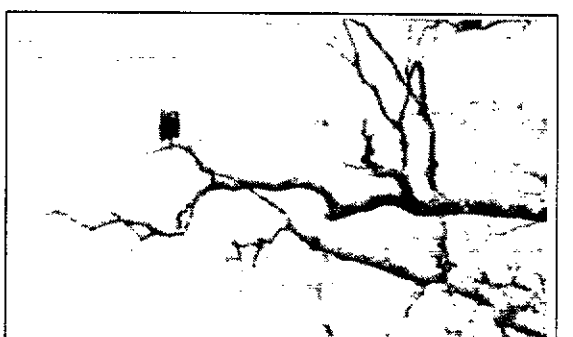
Seed-eating birds, including house finch, lesser and American goldfinches, mourning dove, ring-necked pheasant, and several sparrows, are most abundant in the grassland. Insect-eaters and raptors also hunt regularly in grasslands. Species in these groups at the park include western kingbird, ash-throated flycatcher, western bluebird, northern harrier, black-shouldered kite, and American kestrel. Several ground nesters also depend on the grassland community, including western meadowlark and killdeer. Rodents, including mice, voles, gophers, and ground squirrels, are very common in grasslands, and form the prey base for predators like the red-tailed hawk and coyote. Newts, toads, lizards, and snakes are common amphibians and reptiles in this biotic community.

The Anderson Ranch complex, representing about one-half of one percent of the unit, has several introduced trees and shrubs, with a mostly grassy understory. These support animal life typical of woodland and grassland communities.

The most recognizable changes to the Anderson Marsh area in historic times have occurred to the grassland and water-inundated portions. Grasslands have been largely converted to exotic annual communities by cultivation and grazing domestic stock, in combination with fire suppression practices. Maintaining the level of water artificially with the Clear Lake Dam has increased the amount of land inundated during some seasons by regulating the rate and amount of releases.

Other biotic communities have also been changed by Euro-american occupation. Riparian zones have been reduced by reclamation or land conversion projects. Oak woodlands have also been reduced directly by clearing, and indirectly by the disturbance of seedling trees by grazing stock. Water courses have been dredged and spoil material placed elsewhere. All of these changes to vegetation have impacted the native fauna as well.

Endangered Species - Two endangered and one threatened bird species have been found in the Anderson Marsh area. They are the state and federal-listed endangered bald eagle and endangered American peregrine falcon, and the state-listed threatened California yellow-billed cuckoo. The bald eagle occurs at Anderson Marsh in significant numbers during winter, feeding on the abundant live fish and carrion. Active nesting



The endangered bald eagle occurs in significant winter concentrations at Anderson Marsh.

has not been confirmed to date, although some birds are known to be present during breeding and nesting periods.

An American peregrine falcon was sighted at Anderson Marsh in September 1984 and reported as an update in Dr. Baldwin's study. The peregine falcon preys on small birds, especially favoring open hunting areas, often over water or marsh habitat. Anderson Marsh provides such habitat and an abundance of prey species. Although the marsh offers good foraging habitat, the immediate vicinity is unlikely to be used by the peregrine falcon for nesting.

The California yellow-billed cuckoo was last confirmed at Anderson Marsh in 1973. The riparian woodland habitat on which it is dependent has remained relatively stable since then and may still support this species.

In addition to the officially listed species, there are at least 12 other bird species which frequent Anderson Marsh that are of special concern due to their reduced breeding status statewide.

Fish - Anderson Marsh provides critical habitat for many of the fishes in Clear Lake as most of the lake's shoreline marsh habitat has been eliminated. Nearly all the fish in Clear Lake use tule marsh habitat like that found at Anderson Marsh at some stage of their life history. Tule marsh habitat is especially important for sunfish and minnows.

Clear Lake supports an extremely diverse warmwater fish fauna. Some 25 species representing 11 families occur in the Clear Lake basin. Fourteen of these species are introduced, and 11 are native.

The gamefish found in the lake are the largemouth bass, bluegill, green sunfish, redear, white and black crappie, Sacramento perch, brown bullhead, and white and channel catfish. An occasional rainbow trout is taken from Clear Lake. Trout probably move into the lake during winter storm runoff, but usually do not last successfully through the summer due to the high water temperatures.

The only native sunfish, the Sacramento perch, is present in very low numbers. The introduction of other members of the sunfish family (bass, crappie, bluegill) has played a major role in the reduction of the Sacramento perch populations in Clear Lake. Also, alteration of the tule marsh habitat has probably contributed significantly to its reduction. The Sacramento perch is also the only sunfish native to California and west of the Rocky Mountains, and was historically found throughout the state's central valley and streams tributary to San Francisco Bay, as well as in Clear Lake. It has been mostly lost from its native

range by habitat alteration and the introduction of exotics. The fish is not listed as threatened or endangered by either the state or federal governments because it has been widely introduced elsewhere in the west and midwest. The Clear Lake hitch, an endemic subspecies, continues to do well in the lake.

Other fish found in the lake include the native blackfish, tule perch, and prickly sculpin, and introduced carp, goldfish, Mississippi silversides, and mosquitofish. The introduced fathead minnow and goldenshiner make up a small component of the fishery. Other species are occasionally taken from the lake, such as the Sacramento sucker, Sacramento squawfish, California roach, and the threespine stickleback. These species are primarily fluviatile, inhabiting many of the streams flowing into the lake.

Anderson Marsh is used by many of the minnows and sunfishes for spawning and nursery habitat. It is especially important habitat for young-of-the-year largemouth bass, bluegill, brown bullhead, and white catfish. Carp, goldfish, and blackfish use the shallows and submergent vegetation as spawning habitats. The warm, shallow waters of Anderson Marsh promote rapid development and growth of eggs and larvae. Young fish can find an abundant supply of food (other young fish, zooplankton, and insects) in these waters.

The unit also includes the lower section of Seigler Creek. This portion of the creek has no flow from late spring to the first fall rains. During the time the creek is flowing it is used by juvenile California roach, Sacramento sucker, and rainbow trout. The Clear Lake hitch use the lower portion of this stream for spawning. Adult spawners are attracted to all the suitable creeks flowing into Clear Lake by runoff from spring showers. Hitch lay their eggs in the shallow runs and riffles of the creeks and return to the lake. The eggs develop quickly and the larval hitch wash downstream into the lake. During dry years, or years when the spring rains come late, the adult hitch and their spawn may become trapped in these creeks if stream flows drop rapidly. The perennial sections of Seigler Creek support populations of California roach, Sacramento sucker, and rainbow trout. Green sunfish are also found in Seigler Creek.

Clear Lake has lost four of its native fishes, two of which were subspecies endemic to Clear Lake. The Clear Lake thicktail chub was last collected in 1938 and the Clear Lake splittail was last collected as recently as 1970. Two other species were eliminated from the lake's fauna when Clear Lake Dam was placed on Cache Creek in 1915. Both the anadromous Pacific lamprey and steelhead passed through Clear Lake and spawned in tributary streams. Construction of the dam blocked the migration route of these two species.

Other significant alterations to the lake and its biota have occurred. The most important have been the removal of over 84 percent of the tule marsh habitat from the lake shore, the introduction of numerous exotic fish species (especially the Mississippi silversides), alteration of the streams flowing into Clear Lake, and the pesticide loading of the Clear Lake ecosystem by DDT during attempts to control the Clear Lake gnat.

Ecology

Anderson Marsh is within the Sierra Foothill and Low Coastal Mountain Ecological Region (PRC 5019.53). While prior sections of this Resource Element have dealt with individual components of the environment, this section deals with the way in which these components interact, since each component has influence on the others within its realm.

An ecosystem, in the broadest sense, is regulated by complex interactions of abiotic and biotic features. A thorough understanding of these interactions and the impacts of modern civilization on these systems is needed to properly manage the Anderson Marsh area for the perpetuation of these important natural values.

The ecosystems in this area are a function of the aquatic and terrestrial environments. Energy transfers, nutrient cycles, plant and animal relationships, and organic and inorganic interactions are the mechanisms of a dynamic system, involving physical and chemical properties.

Plant communities in the unit have undergone significant changes from cultivation, livestock grazing, fire suppression, inundation, and dredge and fill projects. Grasslands are now dominated by nonnative species, riparian vegetation has been reduced, and marsh habitat has been deleted in some areas by fill. Algal blooms, now especially prevalent at the lower end of Clear Lake, cause significant dissolved oxygen depletion. Pesticides have been directly applied in Clear Lake to control gnats. Such broad applications are known to interfere with reproductive capabilities of many species.

Species composition of wildlife has changed in response to vegetation pattern shifts and other manipulations. Impacts have also resulted when nonnative species have entered the ecosystem to compete with, parasitize, or prey on natives. Predictable impacts from increased human uses for recreation and other purposes include water quality changes from normal lake level fluctuation and possible effluent or other discharges.

Nonetheless, Anderson Marsh is a functioning ecosystem of major significance to Clear Lake. Representing more than half of the remaining tule marsh on the lake, this habitat is vital to its biotic production, including spawning and nursery areas for

fish, and mating, breeding and nesting sites for numerous avian species.

• Cultural Resources

Archeological Sites

There are 27 recorded Native American sites wholly or partially within Anderson Marsh State Historic Park. These sites are divided into three categories based on site types listed in the National Register nomination for the Anderson Marsh Archeological District. The entire 10,000 plus-year history of Anderson Marsh may be reflected in each category: special use sites, habitation sites, and village sites.

Special Use Sites

These sites have small amounts of cultural debris, often obsidian and basalt chipping residue and tools or bedrock outcrops containing mortars and/or cupule petroglyphs. The sites are interpreted as chipping or weapon renewal stations, temporary occupation zones, hunting stations, collecting stations, or milling stations. Special use sites in the project area include CA-Lak-526, 527, 528, 529, 533, 537, 539, 540, 541, 587, 590, 633, 634, and 636.

These special use sites can be divided into four general categories based on surface observations.

1. Surface Scatter of Thermally Altered Rock

   Site CA-Lak-527, located toward the west edge of Anderson Marsh, consists of a surface scatter of thermally altered rock. It is the only site in the unit that exhibits only fire altered rock on the surface. When recorded in 1976, it was noted that the area was littered with numerous beer cans and that some of the stones had been arranged into a fire ring. This site may be modern and not Native American.

2. Surface Scatters of Chipped Stone Tools and Debitage on the Surface

   These include: CA-Lak-526, southeast of Slater Island, with basalt and obsidian tools and flakes on the surface; CA-Lak-539, along the western edge of Lewis Ridge, which is described as a light scatter of basalt and obsidian tools and flakes; CA-Lak-541, south of the second Cache Creek oxbow west of State High-way 53, has a scatter of obsidian flakes along a fence line. Because the flakes concentrate around the posts on the fence line, there may be a sub-surface component. CA-Lak-587, located on a low hill southeast of Slater Island, consists of a surface obsidian scatter with a possible small midden; CA-Lak-633 is an obsi-

dian scatter on a mud surface in the wash to the southeast of Slater Island; CA-Lak-636, in the marsh to the west of Slater Island, is a surface scatter of basalt scrapers and basalt and obsidian flakes. This may be the surface exposure of a more extensive buried site. CA-Lak-634, on the west side of Anderson Marsh south of Garner Island, is a scatter of basalt and obsidian choppers, core tools, and cores which could represent an early pre-projectile point site.

3. Ground Stone Surface Scatter

The third special use site type consists of only a single site showing a ground stone surface scatter. The site is CA-Lak-528 located on the west side of Anderson Marsh south of Garner Island.

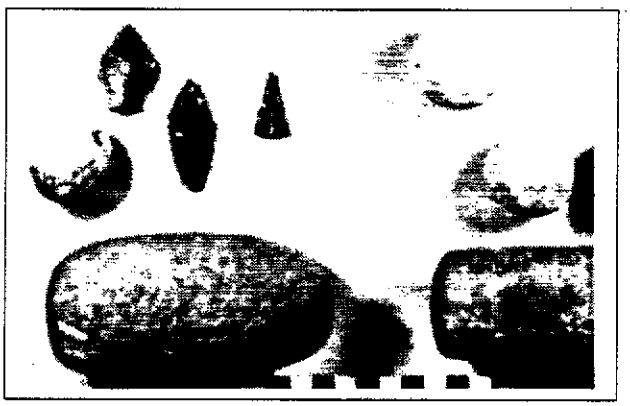
4. Surface Scatter of Chipped and Ground Stone Artifacts

The fourth grouping of special use sites consists of five sites which exhibit chipped and ground stone artifacts and chipping residue along with other artifact types such as fired clay balls and worked antler tines. Site CA-Lak-529 consists of a periodically submerged concentration of chipped and ground stone tools and fired clay balls located immediately south across Cache Creek from the southern tip of Garner Island. This site may represent a tule processing area. Site CA-Lak-533 lies on the southwest shore of the third Cache Creek channel loop west of State Highway 53. Site CA-Lak-537 consists of a thin midden with a surface context of chipped and ground stone tools. It is located at the southeast shore of the second Cache Creek loop west of State Highway 53. The site exhibits a surface scatter of chipped and ground stone tools. Site CA-Lak-540 lies in a saddle near the middle of Lewis Ridge. The site consists of a flake scatter with associated ground stone tools. Site CA-Lak-590 lies along the western edge of Lewis Ridge. The site, which is one-third mile long, consists of a scatter of chipped and ground stone tools and an antler tine. This site stretches along the marsh edge. (Recent information indicates that this site connects with the larger village site of CA-Lak-589 on the northwestern tip of Lewis Ridge).

Habitation Sites

These are characterized by a midden deposit exhibiting tools, broken tools, and organic debris. Tools and broken tools represented include most of the locally manufactured chipped and ground stone tools. Organic debris can include shell, bone, and charcoal. These sites are interpreted as areas that were either occupied year round by a small group, possibly a family, or seasonally occupied over a number of years. Habitation sites in the unit include CA-Lak-69, 72, 384, 509, 525, 538, 625, and 635.

Site CA-Lak-69 is located on the westernmost loop of the Cache Creek channel west of State Highway 53. The site consists of a midden deposit with chipped stone on the surface. It is possible that the entire length of the Cache Creeek channel in the park constitutes a single continuous Native American site. Site CA-Lak-72 consists of a large midden area which has been cut by State Highway 53. Recent work at the Anderson Ranch headquarters, including power augering, indicates that this site extends south into the historic ranch area and may continue south out of the unit onto the adjacent ranch. Surface materials noted include chipped and ground stone tools, tool fragments, and quartz crystals. This site has suffered more severe impacts than other known Native American resources in the unit, principally from ranch and highway construction. Site CA-Lak-384 is described as a fairly well developed shoreline midden with bone, basalt, and obsidian chipping residue and at least one rock feature. The site is located on the southeast shore of the third Cache Creek loop west of State Highway 53.



Stone tools.

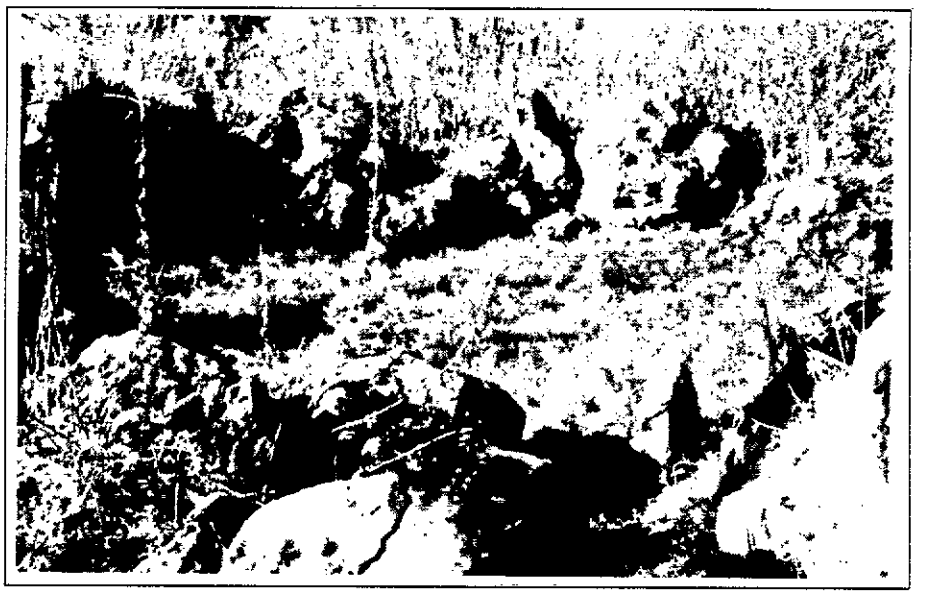
Site CA-Lak-509 is on the east bank of Seigler Creek, bordered by Cache Creek on the north and Lake Street to the east. The site is a midden area which has been impacted by Lake Street. CA-Lak-509 may represent part of the Miwok village of "Ka'wiyome" which was identified by Barrett in 1908. However, notes from a recent interview with an elderly southeastern Pomo, John Kelsey, indicate that this is the site of a Pomo habitation or village with the site of Ka'wiyome actually further to the south and east. Current ethnographic theory supports his statements and places the site near Lower Lake School. Site Lak-509 may extend over and connect with Lak-72.

CA-Lak-525 lies on the westernmost horseshoe bend on Cache Creek. The site is a small area of fire-cracked rock, obsidian, and milling equipment associated with a small midden. Located on the first bend west of State Highway 53, CA-Lak-538 is a midden with concentrations of obsidian and basalt flakes, and mano and mortar fragments. Located across Cache Creek off the southeast corner of Slater Island, CA-Lak-635 exhibits obsidian and basalt tools, and chipping residue and milling tools eroding out of a buried midden. CA-Lak-625 is located immediatly north across Cache Creek from Slater Island. This site is a buried midden known to extend into

the Cache Creek channel and may connect with CA-Lak-30 and 530 on the south side of the creek. Cultural debris noted consists of mano and pestle fragments, obsidian tools and chipping residue, fired clay balls, and burnt bone.

Village Sites

These are characterized by midden deposits covering an acre or more and exhibiting a broad range of artifacts of chipped and/or ground stone, mortars, petroglyphs, structure depressions, and human burials. Villages were usually ceremonial centers and were quite complex. The complex nature of village sites is exhibited by house depressions, ceremonial house or brush enclosure depressions, and midden deposits up to 10 feet deep. Although southeastern Pomo villages were generally located on islands, at least four mainland sites in the Anderson Marsh State Historic Park area exhibit village qualities. CA-Lak-30, 530, 589, and 656 are extensive and deep enough to warrant the classification of "village."



Rock-lined house pit, Lewis Ridge.

The village of Koi (Xqoyi), CA-Lak-29, located on Indian Island, is in private ownership. The State of California has a conservation easement on a portion of the village site. The village was the known ceremonial and head village of a southeastern Pomo group which drew subsistence from the Anderson Marsh area. Although noted as an Indian village by land surveyors in 1924 and by A.L. Kroeber in 1932, the island village was first recorded by Francis Riddell in 1948. It is a large, extensive village covering nearly all of the island. Surface components include numerous circular and oval house depressions, at least one large dance house (earth lodge), numerous bedrock mortars,

Village and burial site, Garner Island.

petroglyphs, chipped stone tools and chipping residue, ground stone tools and fragments, burnt and unburnt animal bone, and reputedly human burials. Kroeber's 1932 evaluation of the site noted a cemetery on the west side of the island.

Site CA-Lak-30 has been identified as the ethnographic village of Yo by John Kelsey, an elderly Pomo man whose grandparents lived in a tule house on the site. The late component of the site includes the entire eastern or high portion of Slater Island. The earlier component of the site covers at least 40 acres. This large site almost certainly connects with site CA-Lak-530 to the west along the Cache Creek channel and with CA-Lak-625 north across the Cache Creek channel. It may also connect with sites CA-Lak-526, 633, and 69 to the south and east. The site was first recorded by Franklin Fenenga in 1946, with subsequent recordings in 1952 and 1976. This large multicomponent site exhibits a deep stratified midden, petroglyphs, scatters of chipped and ground stone tools and chipping residue, steatite artifacts, fired clay balls, and human burials.

Site CA-Lak-530 extends west from CA-Lak-30 along Cache Creek to a point opposite the southeast corner of Garner Island. This site is an extension of CA-Lak-30. It may be contemporary with the lower component at Lak-30. The site is a buried midden of unknown dimensions with cobble mortars, pestles, metates, manos, numerous chipped basalt and obsidian artifacts and chipping residue, and baked clay balls eroding out along the Cache Creek channel.

Site CA-Lak-589 lies on the northern tip of Lewis Ridge extending into the marsh. This large stratified midden is now known to

connect with CA-Lak-590 to the south. These combined two sites cover the northern and western portions of the ridge. The site was tested in 1977 and exhibits three deflated strata on the north end. Surface indications include bedrock mortars, cupule petroglyphs, steatite artifacts, chipped stone artifacts and chipping residue, ground stone artifacts, and human bone. Mostin pentagonal points with obsidian hydration rim readings, suggestive of considerable antiquity, were recovered from CA-Lak-589.

CA-Lak-656, like Lak-589, is a large midden exhibiting three strata. This site is more than 10 feet deep. This 20 plus-acre site extends south from Molesworth Creek into the northwest portion of the unit. The site surface exhibits ground stone artifacts and chipped stone tools and chipping residue. The site has been impacted by the channelization of Moleworth Creek, numerous casual roads, trails, camping areas, dumping, and excavation.

Euroamerican Standing Structures

Anderson Ranch House Complex HS1-Features A thru G

The ranch house complex is located immediately west of Highway 53. The complex includes three large standing structures (ranch house and two barns), and five small outbuildings. Although these structures date from different periods the complex as a whole is expressive of late 19th and early 20th century ranch life. The ranch house (Feature A) and the north barn (Feature B) are of historic interest. Features A-G are shown on Figure 1.

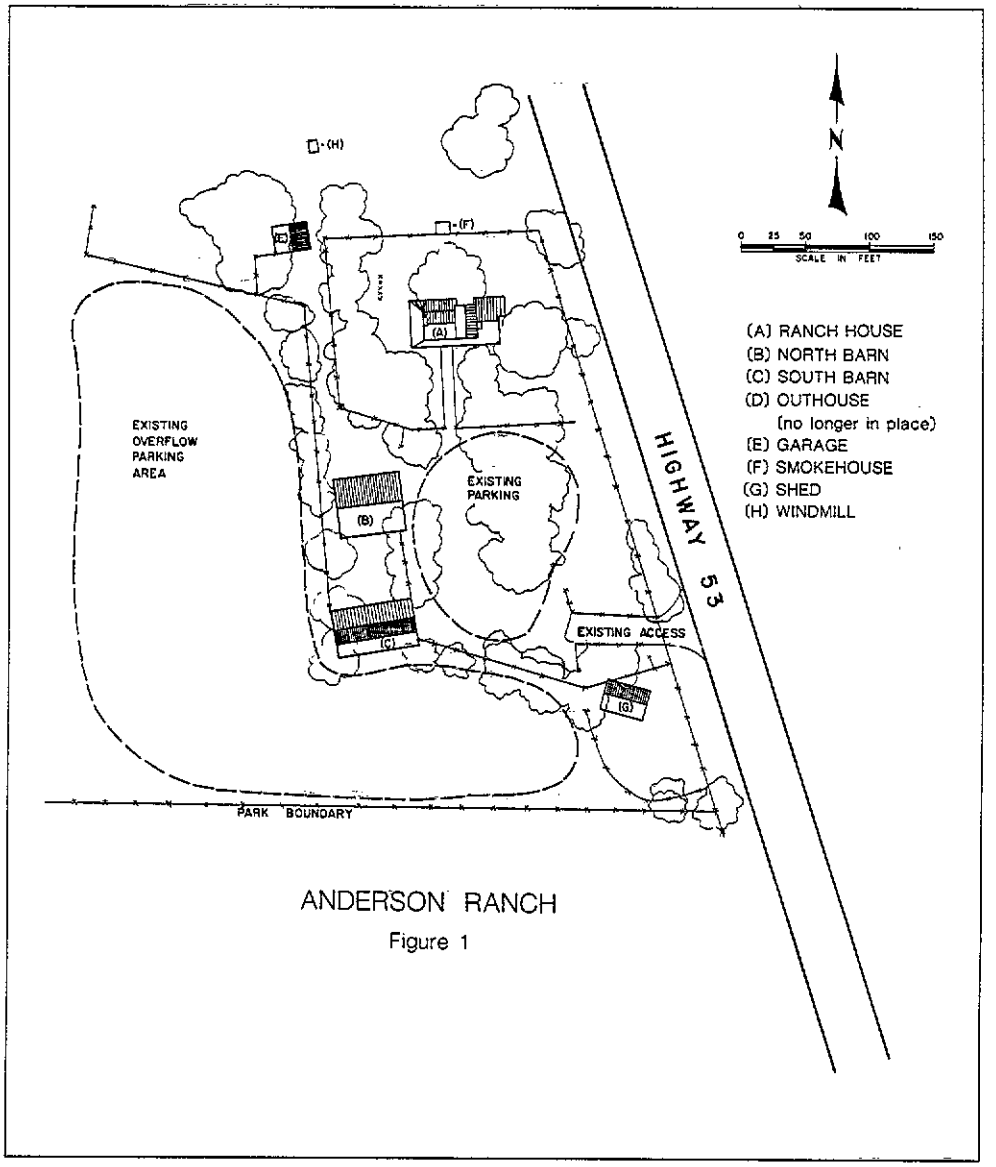
Anderson Ranch House - Feature A

The ranch house is a large, predominantly Greek Revival structure composed of three "sections" or wings, each constructed in a different period. The central section dates from the 1860s, the west, or parlor wing, from the mid-1880s, and the east, or kitchen wing, from the 1920s. The kitchen wing incorporates elements of the craftsman bungalow style typical of the period in which it was built.

Despite several alterations in the original structure, the house retains its essential historic integrity with numerous handcrafted interior and exterior elements preserved. This is particularly true of the 1886 west wing.

The house, which is eligible for listing on the National Register of Historic Places, is associated with the early settlement of Lake County and with the development of farming and ranching in the Clear Lake area. One of the few 19th century Lake County ranch houses that has survived without extensive alteration in its appearance, it is an excellent example of 19th century rural vernacular architecture. It exemplifies the persistence of earlier

stylistic traditions in rural areas and it incorporates traditional, if not highly distinctive, elements of handcrafting. Its eclectic construction exemplifies a subordination of stylistic consistency to practical necessity typical of rural buildings. The setting of the house with its adjacent barns and the surrounding open, undeveloped land contributes to the overall integrity of the structure.



ANDERSON RANCH

Figure 1

North Barn - Feature B

A wide plank-sided, gable roof structure with hand-hewn mortise and tenon interior structural elements. The hand-hewn beams and mortise and tenon joinings indicate that portions of the structure date from circa 1860s.

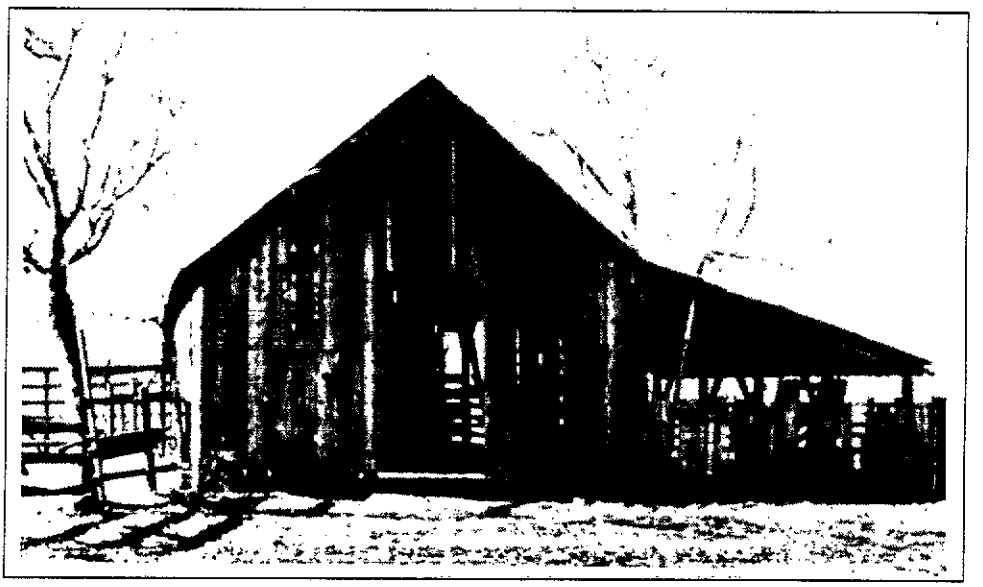
The Anderson Ranch house is associated with the early settlement of Lake County and the development of farming and ranching in the Clear Lake area.

South Barn - Feature C

A large haybarn with wide vertical plank and board and batten siding. The main barn dates from 1948-49 but incorporates materials from an earlier barn which stood on the same site. A rear shed, which forms the west wall of the barn, dates from the 19th century.

Privies - Feature D

Two wooden two-seater privies of late 19th century construction. Both privies have been removed from their original sites and are nonfunctional.



The south barn.

Garage - Feature E
A rectangular gable roof double garage finished with rough vertical and horizontal planks. Documentary evidence indicates that the garage was built circa 1930.

Smokehouse - Feature F
A small board and batten structure located to the rear of the ranch house. Visual evidence indicates that it is of 20th century construction.

Shed and Corral - Feature G
The shed is a simple board and batten and vertical plank structure built circa 1930 and located near the present entrance gate. The corral is a small, post and sawn board holding corral with a loading chute. The corral was moved to its present location when Highway 53 was constructed.

Lewis Ridge Barns HS2 (Features A and B)
Both structures are large, partially open haybarns finished with rough vertical planks. The north barn is 50.2' X 20.5'; the south barn is 48.5' X 24.5'. Large hay troughs extend the length of the north and south facades. The barns were constructed circa 1940; they do not have historic significance and may be removed.

Lewis Ridge haybarns.

Archeological, Ethnographic, and Historic Background

The 27 Native American archeological sites within the boundaries of Anderson Marsh State Historic Park represent a time span ranging from more than 10,000 years ago through the early 20th century. This array of sites is part of the Anderson Marsh Archeological District which is listed on the National Register of Historic Places. Anderson Marsh was one of the most densely populated areas in prehistoric California. The area continues to be important to remaining communities of southeastern Pomo.

Ethnographic and archeological observations in the Anderson Marsh area began at the turn of the century. Following an intensive archeological survey in 1977 by John Parker and Dr. David Fredrickson of California State University-Sonoma, the

Anderson Marsh Archeological District was placed on the National Register of Historic Places. The archeological district is on both banks of Cache Creek extending from the southern end of Clear Lake to the concrete bridge where State Highway 53 crosses Cache Creek. It is larger than the state historic park, which is wholly within the district. (The district is located on the Clear Lake Highlands and Lower Lake 7.5' USGS sheets. The survey area for the National Registry nomination takes in portions of Sections 2, 3 and 4 of Township 12 North, Range 7 West, and parts of Sections 33 and 34 of Township 13 North, Range 7 West, Mount Diablo Base and Meridian).

The southen Clear Lake basin has the longest cultural sequence of any comparable area in the North Coast Ranges. The chronology developed for the North Coast by David Fredrickson begins with the Paleo Indian Period, dated from around 10,000 years to 6,000 years before the present. These people, as evidenced by the archeological sites, developed skilled hunting patterns but undoubtedly also utilized the resources of the lakeside environment. Lak-589, within the boundaries of the park, yielded readings on obsidian of considerable antiquity.

Fredrickson's second period is called Archaic. It is divided into lower, approximately 6,000 to 3,000 B.C.; middle, approximately 3,000 to 500 B.C.; and upper, approximately 500 B.C. to 500 A.D.

Peoples of the lower and middle Archaic periods had an economy focused on the collection and processing of small hard seeds, with hunting of equal importance. Flat milling slabs were the most important milling implements throughout the lower and middle Archaic periods. Stone bowl mortars were added during the upper Archaic period, when Fredrickson identifies peoples of Sacramento Valley and/or San Francisco Bay region cultures influencing the local cultures. The type site for this period is the Houx site (CA-Lak-271), located about two miles south of the Anderson Marsh area. This site shows a continuing focus on hunting, but is characterized by the probable processing of acorns rather than hard seeds.

Fredrickson's next period is called the Emergent period and runs from 500 A.D. to approximately 1800 A.D. or European contact. The technological and economic patterns include hunting, acorn collecting, slab mortars with basket hoppers instead of bowl mortars, and the bow and arrow, which was added to the earlier short spear with spear thrower.

The archeological record in the Anderson Marsh area melds gradually into the historic period. Ethnographically, the native inhabitants of Anderson Marsh are known as the southeastern Pomo, or more specifically, the community of Koi (Xqoyi), whose community center and major village (also Koi) was located on what is now known as Indian Island at the northwest boundary of the unit.

The southeastern Pomo are the furthest inland of seven recognized Pomo groups. All speak languages classified within the Hokan language stock, although some of the dialects are mutually unintelligible among different Pomo groups. It is possible that the boundary between the Koi and the Lake Miwok (a Penutian-speaking group) community of Tuleyomi was within or near the southeastern boundaries of Anderson Marsh State Historic Park.

Additional southeastern Pomo island villages included Qamdot on Anderson Island and Elem on Sulphur Bank Island. The community of Elem still exists on the mainland to the east of the island home. Elem represents the remnant of all southeastern Pomo communities, and there are living descendants of all three island villages residing at Elem. The Koi Pomo controlled access to Lower Lake. They claimed the Anderson Marsh area and the adjacent mainland. Family ownership of land for gathering was noted by Gifford in 1923. These family-owned parcels were named. While gathering was exclusive to the owning family, it appears that hunting was open to nonfamily members.

The southeastern Pomo subsistence pattern and material culture are a reflection of their adaptation to lake living. Population estimates for the southeastern Pomo range up to about 1,000. This would mean a population density of almost 15 persons per square mile. The richness of the southeastern Pomo environment is evident when it is noted that in many parts of Califonia several square miles were needed to support one individual.

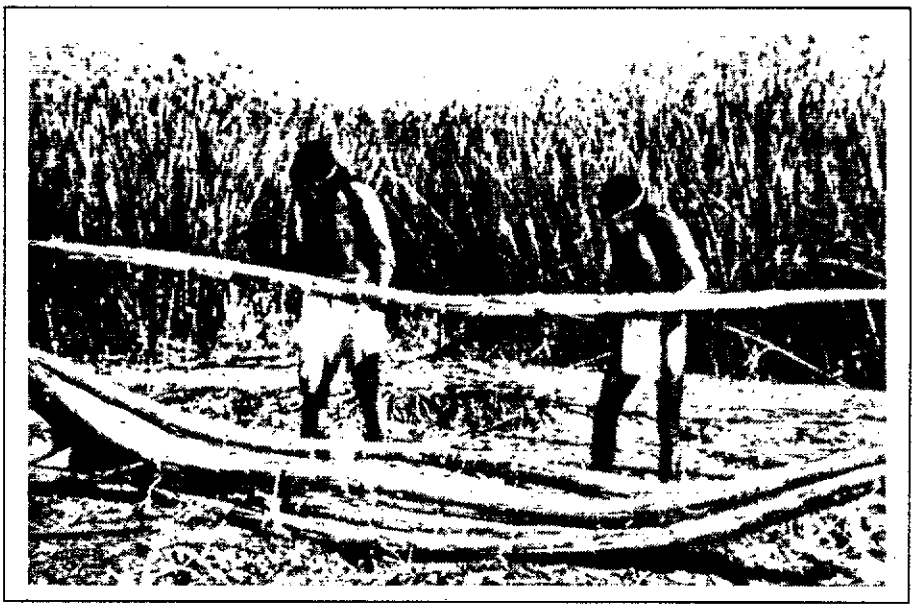
Southeastern Pomo subsistence centered on a protein base of fish and shellfish and a carbohydrate base of acorns. Additional protein came from waterfowl, deer, and small game. Additional flora food resources included clover, pine nuts, tule shoot and root, other roots, and various bulbs, fruits, and berries.

Fish were taken in both the lake and nearby streams using a variety of techniques. Beginning in February and running through the end of April, several varieties of spawning fish were caught. In succession, they were suckers taken with a small conical basket, "pike" (squawfish) with a gig, hitch and "chay" (splittail) with long basket traps and fish dams (sometimes fences), and blackfish with traps and nets in the tule swamps.

Clams were harvested in June and July, and waterfowl were trapped from November through the middle of February. Vegetable resource exploitation centered on acorn gathering which occurred in October and November. Little else could be gathered from December to April. In April and May, the clover was gathered and some bulb digging took place. Bulb digging was joined in June by root digging and tule gathering which continued through July. August was the time for trips to the coast and to the

pine forest to gather nuts. Most of the people returned in September to prepare for the acorn harvest.

Subsistence technology centered on the making of baskets, nets, tule boats, and bows and arrows, and on stoneworking and house construction.



Tules were an important element of the Pomo subsistence technology, used in making baskets, boats, and houses.

The Pomo built at least six types of structures. Winter dwellings were large multifamily structures built of tied bent poles with an overlay of tule mats. These houses ranged up to 30 feet in length and often housed an extended family. The summer house was brush over bent poles and generally of a size suitable for a nuclear family. Ramadas were built for summer use. The Pomo built a true sweathouse which functioned as a sort of men's club. Men not only sweated in the 15 to 20-foot diameter earth-covered structure, but often slept there too. Surplus acorns and other foodstuffs were stored in granaries for year-round use. These were elevated above ground in the Central Valley style found among the eastern and southeastern Pomo groups.

The Pomo ceremonial structure was a 40 to 60-foot diameter semisubterranean earth lodge. It had one center pole with eight smaller poles evenly surrounding the center. The fire lay between the center pole and the south-facing entrance tunnel, with a drum opposite the tunnel. The offset smokehole was used as an entrance for special ceremonies.

Southeastern Pomo occupation of the land continued well into the Euroamerican period. Land surveyors and a modern Pomo informant note Native American families occupying Indian and Slater Islands into the 1920s.

Euroamerican exploration of the Clear Lake basin was carried out primarily by hunters and trappers who first entered the area in the late 1820s.

The first Euroamerican settlement at Lower Lake occurred in 1854. When the area was surveyed in 1855, the U.S. deputy surveyor noted the presence of a "homestead" along Seigler Creek belonging to a Dennis Yokum. This homestead was never confirmed, and in 1858 the majority of land which is now within the unit became State Selection Land (land the state could sell to acquire revenue). Although he did not file a deed with the county until 1868, by 1855 J.M. Grigsby had established a claim to most of this selection land. Grigsby built a house consisting of either the original kitchen wing of what is now known as the Anderson Ranch house, or the kitchen and central section of this structure.

Between 1866 and 1868 large portions of what is now the park were inundated as a result of the downstream damming of Cache Creek. The Grigsby home was temporarily rendered uninhabitable. In 1868 the dam was pulled down and the damaged lands were eventually reclaimed for grazing and cultivation.

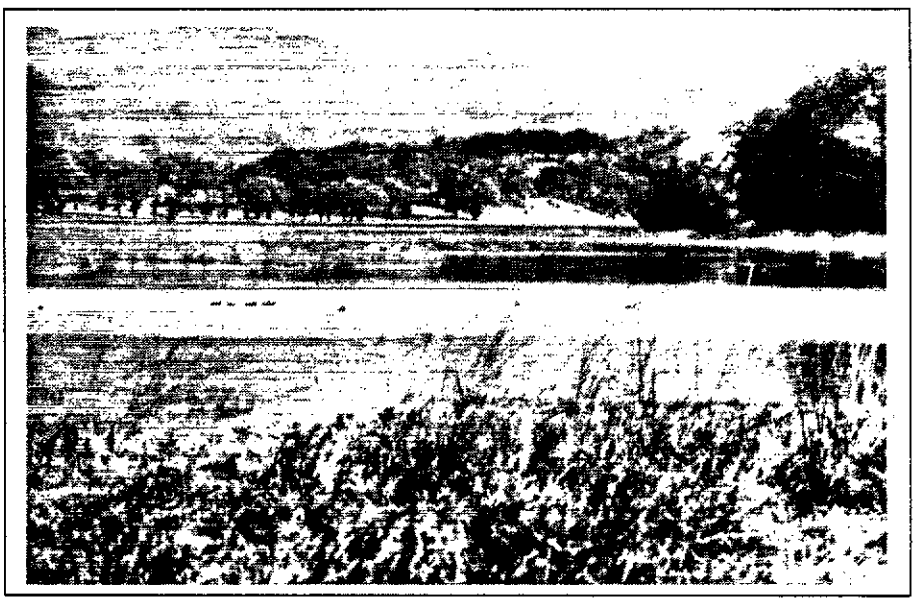
In 1870 Grigsby sold his holdings to the Clear Lake Water Works Company and its agent, L.P. Nichols. In 1882 title was transferred to the California Agricultural Improvement Association, a subsidiary of the water company. These companies developed vineyards and fruit orchards, raised hay, and engaged in dairying on a number of properties in the vicinity of the lake. It is possible that the companies, which maintained houses for their tenants, built onto or modified the Grigsby residence during the period of their ownership.

In 1885 the company sold the land to John Still Anderson, a Scottish immigrant. Anderson, his wife, and six children operated a dairy ranch near the marsh and on land they owned in nearby Morgan Valley. In 1886 the Andersons added the tall west wing to an already existing but smaller and less imposing ranch house at Anderson Flat. After John Still's death in 1912, four of his unmarried adult children continued to run the ranch, which shifted from dairying to stock raising. The eldest Anderson son, John Russell, married and remained actively involved in the management of the ranch, residing in a nearby house (located south of the park on private property). About 1918 the original kitchen wing was torn down and replaced with the present structure. During the 1920s and 30s the children of Agnes Anderson Haggitt (John Still's youngest daughter) lived and

worked on the ranch. After 1912 the ranch was known as the Anderson Brothers. Slater Island, which was not surveyed until 1925, was patented by Charles Anderson in 1927.

Members of the Anderson family continued to live at Anderson Ranch until the late 1960s when it was purchased by a local rancher, Raymond Lyons. In 1982 the State of California acquired the property because of its unique archeological resources.

• Esthetic Resources



The marsh is an ever-changing area of natural beauty.

The setting in and around Anderson Marsh State Historic park includes several natural elements that combine to form a varied natural scene. The two major positive visual elements within the unit are Anderson Flat and Anderson Marsh.

Anderson Flat is a broad, open valley bordered on the north by Cache Creek and on the south by an oak-studded ridge. The open, expansive flat, occasionally studded with stately oaks, is a sharp contrast to the surrounding steep topography, dense vegetation, and urbanized environment. The contrast gives the flat a degree of distinction and emphasizes its natural beauty. The view of the flat approaching the park from the north on Highway 53 is extremely scenic.

Anderson Marsh is a large expanse of lush, green, aquatic vegetation and open water. Variations in water level, seasonal changes in the color and height of vegetation, and the abundance of bird species all combine to make the marsh an ever-changing area of natural beauty.

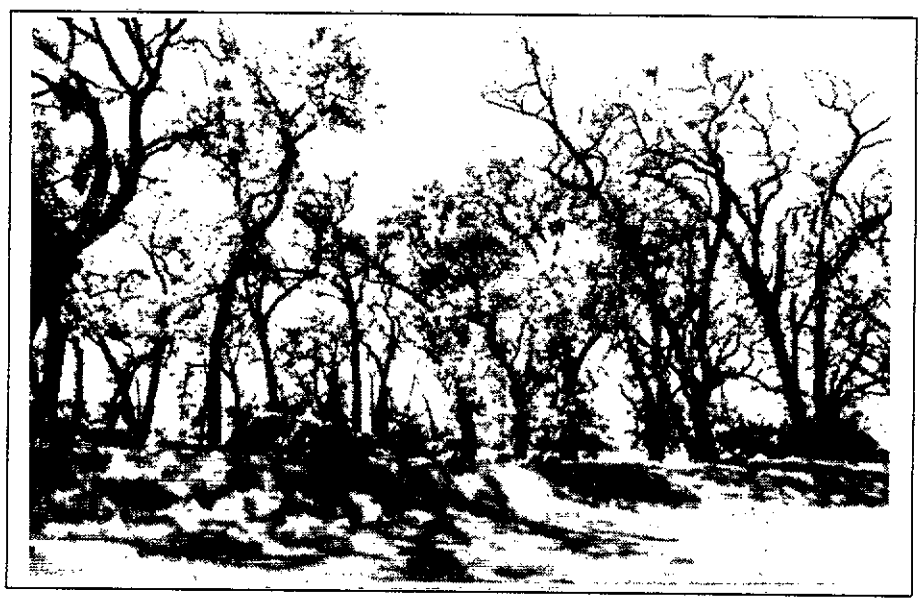
Other natural features that contribute to the visual quality of the unit include Lewis Ridge, an oak-studded low ridge south of the flat; the lush green riparian woodland vegetation along Cache Creek adjacent to the marsh; and the dense oak forest on Slater Island. These features screen much of the rest of the unit from nearby urban developments.

Features that detract from the unit and its natural environs include Highway 53, which bisects the eastern portion of the unit, and residential development on the north side of Cache Creek. Also, the dirt roads and scars from vehicle activity in the North Flat (the area north of Slater Island) are negative visual features.

The quieter and natural sounds of areas away from heavy traffic are positive auditory features of the unit. Noise from Highway 53 and from aircraft using Pearce Airport is unpleasant. Highway 53 noise especially impacts the ranch area and the stretch of Seigler Creek within the park unit.

• Recreation Resources

Anderson Marsh, because of its superlative cultural and natural history, provides special opportunities for Native American study and nature study of regional and statewide significance, birdwatching, and photography.



Slater Island Heron Rookery. Birdwatching is a major recreational pursuit.

Other recreation activities that occur frequently in the Clear Lake region are camping, picknicking, sightseeing, swimming, fishing, and boating. Fishing is excellent and popular at the lake. Crappie, bluegill, black bass, and catfish are caught regularly.

Resource Policy Formation

- **Classification**

Classification establishes management and public use direction and affords certain protections under the California Public Resources Code (PRC 5019.50), Resource Management Directives for the California Department of Parks and Recreation, and other provisions. An inventory of the unit's scenic, natural, and cultural features must be submitted by the department to the California State Park and Recreation Commission for its consideration prior to classification action (PRC 5002.1).

The influence and dedication of members of the Cultural Heritage Council and its associate groups -- the Friends of Anderson Marsh, Konocti Archeologtical Association, and the Native American Cultural Association -- have been the inspiration and support that led to an appropriation of over $3 million by the Legislature for acquisition of the Anderson Marsh Project, including the superlative cultural and natural values.

State ownership of the parcels acquired to date began in October 1982 with the acquisition of approximately 714 acres. Another 153 acres were purchased in February 1983. Also in February 1983, the department secured a conservation easement for a 1.5-acre parcel of Indian Island. In November 1984, a 3-acre parcel was acquired to finish the present boundary alignment, totaling approximately 872 acres. Garner Island (66 acres) and two small parcels at the northeast corner of the unit totaling about one acre are currently under negotiation. If secured, these lands will complete project acquisiton and bring the total unit to approximately 939 acres.

On June 14, 1985, at a public hearing in Santa Rosa, the State Park and Recreation Commission officially established the project as a unit of the State Park System by classifying and naming the unit Anderson Marsh State Historic Park, to recognize the outstanding archeological features and setting. The same classification action established within the unit a Primary Historic Zone (see Map 3). The Cultural Heritage Council is responsible for nominating for the National Register of Historic Places the more than 40 archeological sites that now comprise the Anderson Marsh Archeological District. Most of these sites (27) are within the unit.

On the same date, the commission approved a natural preserve subclassificaiton for a 540-acre wetland to recognize the outstanding natural values of the unit (see Map 3). This wetland represents approximately one-half of the tule marsh and riparian woodland habitat remaining at Clear Lake. The area was named Anderson Marsh Natural Preserve.

These classifications establish certain protections for the resources and guide the department in their management and operation.

The policies in this Resource Element are designed to assist the department in achieving the goals outlined in the Public Resources Code definition of historical units and natural preserves. Public Resources Code section 5019.59 defines historical units as follows:

> Historical units, to be named appropriately and individually, 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 the visitors, such as access, parking, water, sanitation, interpretation, and picnicking. Upon approval by the commission, lands outside the primary historic zone may be selected or acquired, developed, or operated to provide camping facilities within appropriate historical units. Upon approval by the State Park and Recreation 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 any developments retain or restore historical authenticity. Historical units shall be named to perpetuate the primary historical theme of the individual units.

The Public Resources Code, Section 5019.71, defines a natural preserve as follows:

> Natural preserves consist of distinct areas of outstanding natural or scientific significance established within the boundaries of other State Park System units. The purpose of natural preserves shall be to preserve such features as rare or endangered plant and animal species and their supporting ecosystems, representative examples of plant or animal communities existing in California prior to the impact of civilization, geological features illustrative of geological processes, significant fossil occurrences or geological features of cultural or economic interest, or topographic features, illustrative of representative or unique biographical patterns. Areas set aside as natural preserves shall be of sufficient size to allow, where possible, the natural dynamics of ecological interaction to continue without interference, and to provide, in all cases, a practicable management unit. Habitat manipulation shall be permitted only in those areas found by scientific analysis to require manipulation to preserve the species or associations which constitute the basis for establishment of the natural preserve.

• Declaration of Purpose

The declaration of purpose defines the purpose of the unit and the broadest goals of mangement. The impetus and purpose for acquisition of Anderson Marsh State Historic Park are the oustanding cultural and natural resources that are present.

Cultural features include some of the oldest known Native American sites in California, which were entered into the National Register of Historic Places in August 1978. The Anderson Marsh Archeological District currently constitutes the largest archeological district in California. Some of these sites are known to be in excess of 10,000 years old, making them the oldest securely dated Native American sites in the entire State Park System. The natural features include wetland habitat that is highly productive for biotic resources, supporting threatened and endangered wildlife, abundant and diverse bird species, and other water-associated animal lifeforms. The Euroamerican resources of the unit represent ranching and farming activities typical of the area in the 19th and early 20th centuries.

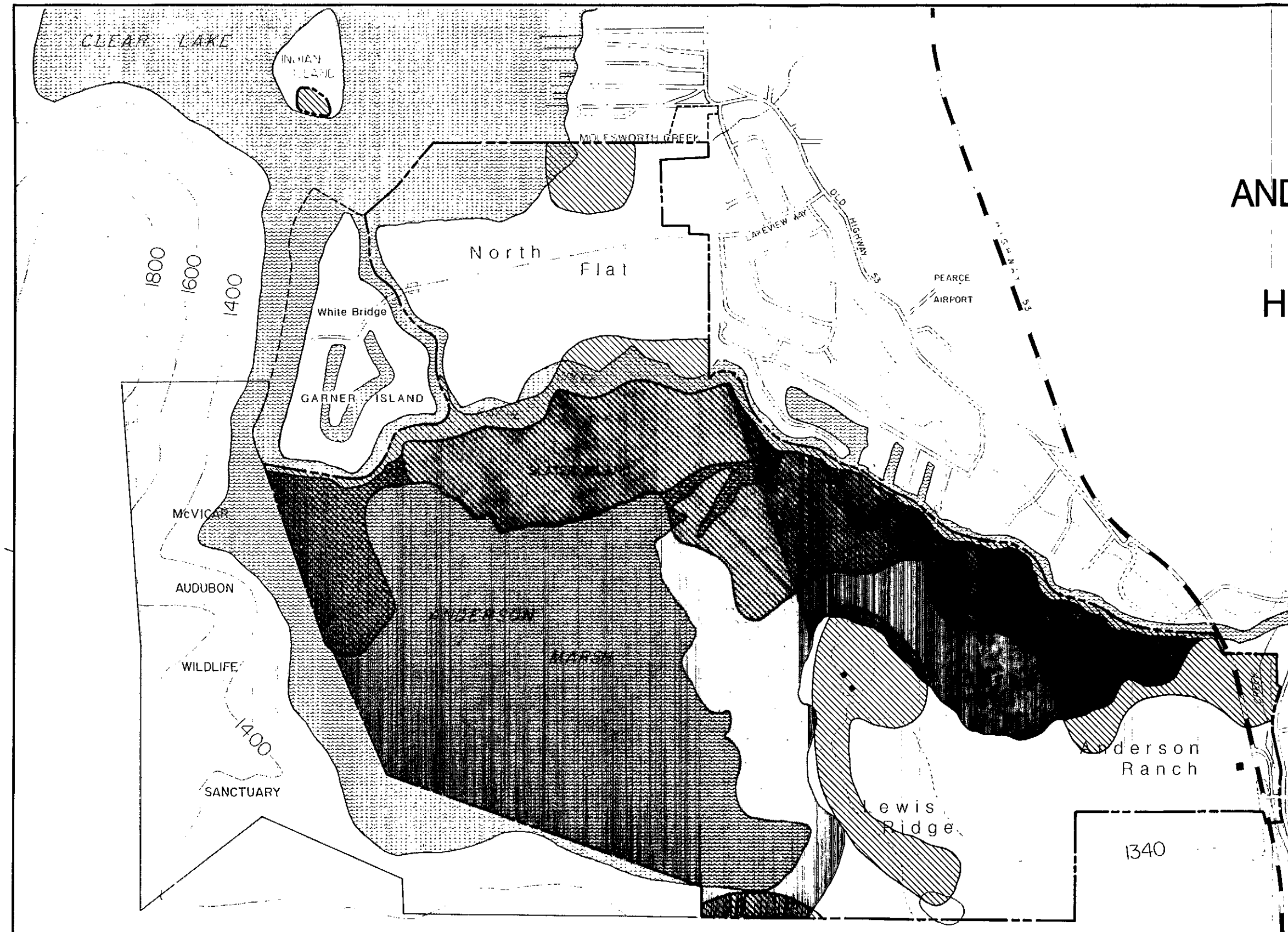
> *The purpose of Anderson Marsh State Historic Park is to make available to the people for their inspiration, enlightenment, and enjoyment the superlative cultural resources including the archeological setting and southeastern Pomo features; the outstanding wetland habitats and naturally functioning biotic communities; and the historic features, scenic landscape, and recreational opportunities that will supplement the public's enjoyment of the unit in a manner consistent with the department's preservation and educational objectives and with scientific interest for the prime archeological and natural values.*

• Zone of Primary Interest

The zone of primary interest is a declaration of the department's concern for any environmental changes outside the unit that could seriously jeopardize or degrade State Park System values.

At Anderson Marsh State Historic Park, the department is concerned about any development or land use outside the unit that would adversely affect State Park System values and purposes within the unit.

Additionally, actions on and around Clear Lake and Cache Creek (the Clear Lake Outlet Channel) are affecting State Park System resources and, as such, are concerns of the department because they may be, or become, sources of pollution or may otherwise change water quality and other natural resources at Anderson Marsh State Historic Park.



ANDERSON MARSH STATE HISTORIC PARK

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SCALE IN FEET

N

LEGEND (1)

- STATE HISTORIC PARK BOUNDARY
- FUNDED AQUISITION (2)
- PRIMARY HISTORIC ZONE
- ANDERSON MARSH NATURAL PRESERVE:

STARTING IN THE NORTHWEST CORNER OF THE MARSH BELOW GARNER ISLAND, THE PRESERVE IS BOUNDED ON THE NORTH BY THE 1320-FOOT CONTOUR ELEVATION NEAR THE CACHE CREEK CHANNEL ALONG THE SOUTH AND EAST SIDES OF GARNER ISLAND RUNNING GENERALLY EASTERLY AND NORTHERLY TO THE NORTHWEST POINT OF SLATER ISLAND. THEN RUNNING EASTERLY ALONG THE NORTH EDGE OF THE ISLAND TO A POINT WHERE THE ISLAND AND THE MAIN CACHE CREEK CHANNEL TURN SOUTHEASTWARD.

BOUNDED ON THE EAST BY THE EAST SHORELINE OF SLATER ISLAND, EASTERLY ACROSS THE CHANNEL RUNNING ALONG THE SOUTH SIDE OF THE ISLAND TO THE OPPOSITE POINT OF LAND ON THE SOUTH SIDE OF THE MAIN CACHE CREEK SHORELINE OF THE MAIN CACHE CREEK CHANNEL AND ACROSS THE MOUTHS OF THE OXBOW CHANNELS TO THE POINT ON THE SHORELINE NEAR THE EAST OWNERSHIP BOUNDARY WHERE THE 1326-FOOT CONTOUR ELEVATION MEETS THE MAIN CACHE CREEK CHANNEL.

BOUNDED ON THE SOUTH BY THE 1326-FOOT CONTOUR ELEVATION RUNNING GENERALLY SOUTHWEST ACROSS ANDERSON FLAT, NORTHWEST AROUND ANDERSON RIDGE, AND SOUTH BETWEEN ANDERSON RIDGE AND THE AQUATIC MARSH TO THE SOUTH OWNERSHIP BOUNDARY, THEN RUNNING DUE WEST ALONG THE SOUTH OWNERSHIP BOUNDARY TO THE WEST OWNERSHIP BOUNDARY.

BOUNDED ON THE WEST BY THE OWNERSHIP BOUNDARY GENERALLY RUNNING NORTH AND NORTHWEST THROUGH THE AQUATIC MARSH TO THE STARTING POINT AT THE NORTHWEST CORNER OF THE MARSH BELOW GARNER ISLAND.

*NOTE: CONTOUR ELEVATIONS GIVEN IN THIS DESCRIPTION ARE BASED ON A DETAILED MAP PREPARED BY THE CALIFORNIA STATE LANDS COMMISSION AND DIFFERS CONSIDERABLY FROM U.S.G.S. CLEAR LAKE HIGHLANDS AND LOWER LAKE 75 MINUTE QUADRANGLE MAPS OF THE SAME AREA.

(1) ALL BOUNDARIES APPROXIMATED.

(2) ALL PROPOSALS REGARDING LAND ACQUISITION ARE INTENDED FOR LONG-RANGE PLANNING PURPOSES ONLY, AND ARE NOT A COMMITMENT TO ACQUIRE.

PRIMARY HISTORIC ZONE AND NATURAL PRESERVE

DESIGNED
DRAWN 5/87
CHECKED

DATE
REVISIONS

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION
APPROVED
DATE

ANDERSON MARSH STATE HISTORIC PARK
PRIMARY HISTORIC ZONE AND NATURAL PRESERVE
GENERAL PLAN - RESOURCE ELEMENT

DRAWING NO. 23061

Map 3

• Resource Management Policies

Policies in this section of the Resource Element are included pursuant to Section 5002.2 of the Public Resources Code, which provides that there shall be included a declaration of Resource Management Policy, "setting forth the precise actions and limitations required for the achievement of the objectives established in the declaration of purpose."

In addition, other provisions of the Public Resources Code, the California Administrative Code, policies adopted by the State Park and Recreation Commission, and Resource Management Directives adopted by the department's director have statewide application and are intended to control activities that affect State Park System resources and values.

The following policies are intended to be consistent with the provisions of law, policies, and directives, but they are more detailed and specific in their application to Anderson Marsh State Historic Park. The policies in this section are grouped under the same major headings and in the same sequence as the resources discussed in the previous Resource Summary.

It has been pointed out earlier in several contexts that the prime resources of Anderson Marsh State Historic Park, and the motivation and reason for their acquisition as public property, are the Native American features present and the wetland habitats with associated biotic communities. All management policies for these resources must be consistent with, and supportive of, the perpetuation of the prime resources and of their optimum appreciation by visitors. Specific policies governing the management of prime resources will be found below.

> **Policy:** The department shall define and execute a program of resource management to perpetuate the unit's declared values.

Natural Resources

General Hydrologic Resources

The water features in the unit are primary to the perpetuation of the natural and esthetic values at Anderson Marsh State Historic Park. Any significant alteration of the hydrologic systems supporting these water features, either within or outside of the unit, may affect them significantly. These impacts need to be identified, monitored, and prevented or corrected before major State Park System values of the unit are lost.

> **Policy:** The department shall be actively involved in local activities and land use decisions that may have an adverse impact on the unit's water features, such as stream channelization, diversion, or

control of pollution sources. Measures to maintain water quality, channel flow, and sediment rates should be recommended and supported. No water shall be diverted within the unit's boundaries that will significantly affect the water features and the ecosystems they support.

Molesworth Creek

Molesworth Creek has been channelized so that it now empties into Clear Lake along the unit's northern boundary. At least as recently as 1958 the flow of this creek within the unit was southwesterly and then southerly across the flat. It drained into the Cache Creek channel at a point opposite Slater Island. This previous alignment carried water through wetland and riparian features. The loss of this water to these features may constitute an adverse impact. The natural vegetation, and hence the wildlife, has likely been changed and probably reduced because the area is now drier.

Policy: The department shall assess the benefit and feasibility of implementing a plan to redirect and restore Molesworth Creek to a natural path and flow regimen. To accomplish this objective, the department shall cooperate with the City of Clearlake to prevent any negative impact on the community.

Flood-Prone Areas

The area around Clear Lake has a history of extensive flooding. Much of the unit is subject to periodic inundation. A reduction in these high-water conditions would impact the biotic communities dependent on periodic inundation. In the unit, such wetland features are correlated with the area where flooding has historically occurred on an average of every other year.

Flood-prone areas within the park include Anderson Flat and the North Flat.

Policy: Flood control measures taken by the department shall not include structures or devices that impede the natural periodic inundation of areas having important ecological values.

Geologic Resources

Seismicity

Anderson Marsh has felt the effects of both distant and local seismic activity. The nearest active fault is a branch of the Konocti Bay fault zone, about 2-1/2 miles west of Anderson Marsh. A strong earthquake could cause damage by ground rupture, shaking, or liquefaction of saturated sediments and subsequent loss of foundation support.

> **Policy:** Structures of high visitor use should not be built in the areas subject to liquefaction, or should be designed to eliminate the liquefaction hazard.

Soil Resources

General Soil Constraints

Certain soils of Anderson Marsh State Historic Park are poorly suited to the development of recreation facilities, buildings, and roads, according to ratings developed by the U.S. Soil Conservation Service. Seasonal flooding of low-lying areas, occasional flooding of higher areas, low soil strength, and dusty conditions occur at the North Flat, Slater Island, Anderson Flat, and the marsh. Additionally, some areas have a high shrink-swell potential. Problems at Lewis Ridge include shallow depth to rock, rock outcrops, rocks and boulders in the soil, high shrink-swell potential, slow permeability, rapid run-off, and a moderate-to-high erosion hazard.

> **Policy:** Soil information shall be considered in the design and location of facilities. Soil loss due to unnatural erosion shall be monitored and projects implemented when necessary to prevent and reduce soil losses and restore soil integrity where possible.

Shoreline Erosion

The streambanks along Cache Creek and its oxbows, and shoreline areas around Slater Island, Clear Lake, and the bay of the marsh are subject to accelerated erosion from artificially maintained high lake levels created by the operation of the Clear Lake Dam, and from wave action created by the operation of powerboats.

Water level regulation at Clear Lake Dam and wave action from power boats have accelerated streambank and shoreline erosion in the unit.

Policy: Erosion along the streambanks of Cache Creek and its oxbows, and along shoreline areas of Slater Island, Clear Lake, and the bay of the marsh, shall be monitored and corrective measures taken where unacceptable losses are occurring. Non-structural corrective measures shall be given first consideration.

Plant Resources

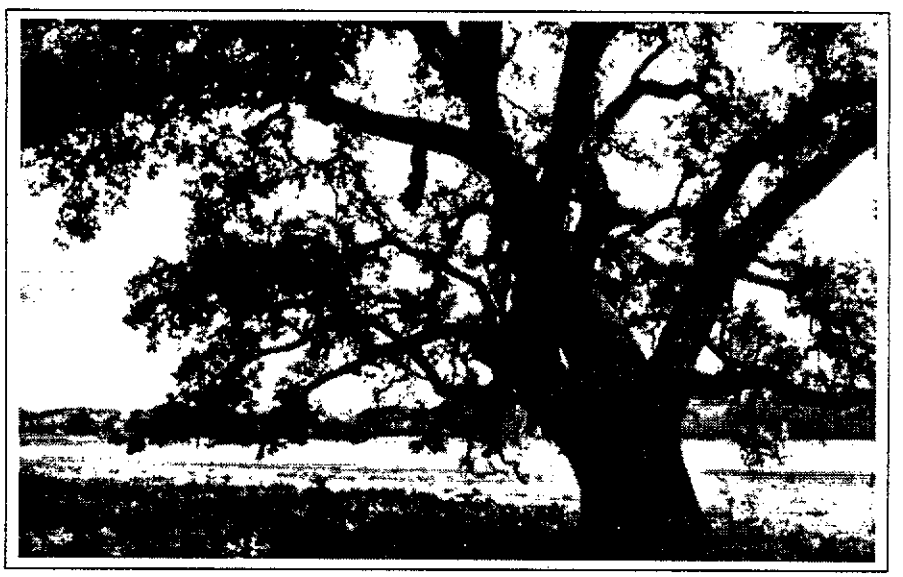
General Vegetation Management

It is the goal of the department to preserve and perpetuate representative examples of natural plant communities common to the unit and the region. The plant communities at Anderson Marsh State Historic Park have undergone past influences from grazing, suppression of natural fires, invasion by exotic species, and cultivation. The net results of such impacts and alterations include unnatural community structures.

Policy: The primary objective of vegetation management shall be to manage toward a natural condition with a minimum of disruption to natural processes. The secondary objective shall be to restore and perpetuate the native plant communities that prevailed in the area prior to Euroamerican influences.

Oak Management

Anderson Marsh State Historic Park has four species of native oaks with cover percentages of 7 percent oak woodland and 3



The Anderson Marsh valley oak riparian forest is one of only 26 recorded occurrences in the state.

percent valley oak forest. Through grazing pressures, habitat modification, and fire suppression, oaks in California have experienced a very low rate of regeneration. Most areas of the oak woodland display a loss of natural age structure which typically is represented by a variety of different age classes. A plant community composed of even-aged individuals is considered to be an unstable community, especially when limited to the older age classes as found among the oaks. Little to no regeneration has been noted in the valley oak woodland in the unit. Some regeneration has been noted in the valley oak forest and blue oak woodland; however, the representaion of all age classes has not been analyzed.

> **Policy:** To ensure the protection and perpetuation of the native oaks of Anderson Marsh State Historic Park, the foothill woodland community shall be managed to promote an increased representation of the younger age classes of the oaks. A general oak monitoring program shall be established to determine annual recruitment and mortality of oaks, and present age class representation.

Riparian Zone Management

Riparian areas, defined by multilayered hydrophytic vegetation along water courses, are among the most productive habitats in California, and yet they have undergone the most alteration. Concentrated use in these zones results in vegetation trampling and obliteration, soil erosion and compaction, and water pollution.

The total land coverage of riparian systems in the unit is 65 percent, taking in four different plant communities. Past disturbances to the riparian zones at Anderson Marsh State Historic Park include grazing, cultivation, and lake level regulation by the Cache Creek Dam. Loss of riparian vegetation along Cache Creek is still occurring by streambluff slumping during high water retention in the lake.

> **Policy:** Riparian areas shall be protected from activities that result in the loss of riparian vegetation or restrict development and perpetuation of a multilayered plant community structure. Trail access in riparian areas shall be developed and maintained where it is found to be compatible with resource values and least disruptive to riparian ecosystems.

Fire Use

Naturally occurring fires were a part of natural ecological processes on the lands that now comprise Anderson Marsh State Historic Park. These fires were most often started by lightning in late summer and early fall. Native American populations used

fire for clearing brush and grasslands and as a plant management tool to promote the reproduction and growth of native food sources.

Disruption of these natural fire processes by fire suppression activities for over 50 years has resulted in ecological imbalances and a wildfire hazard from accumulated fuels. Fire needs to be reintroduced to maintain and restore ecosystems and reduce the potential for catastrophic wildfires.

> **Policy:** In accord with the department's prescribed fire management policies, fire shall be restored to its natural role in suitable ecosystems at Anderson Marsh State Historic Park. A fire management plan that details an ongoing program of prescribed fire use shall be prepared and maintained.
>
> The plan for prescribed fire use shall contain program objectives, guidelines and treatment constraints, specific burning plans, and provisions for monitoring and evaluation. Particular care shall be taken to minimize deleterious effects of the unit's natural, cultural, and scenic resources. Artificial modifications and processes shall be minimized. A program of prescribed fire use shall not preclude in any way the necessity for wildfire prevention and suppression.

Fire Prevention and Suppression

Wildfire can be a threat to human life and property and can also severely damage State Park System resources. Because conventional fire control facilities and procedures can and often do cause longer-lasting damage to resources than does fire itself, the development of special standards and procedures applicable to this state historic park environment is important.

> **Policy:** A wildfire management plan that addresses wildfire prevention, presuppression, and suppression shall be developed by the department, in cooperation with the responsible wildfire control agencies. This plan shall include prevention measures; criteria, standards, and location of fire access roads and fire protection facilities; visitor evacuation routes; and acceptable fire suppression procedures.
>
> The plan shall be consistent with primary unit resource values and major unit objectives. Department standards require a minimum disturbance of soil and primary emphasis on avoiding esthetic impacts in the location, construction, and maintenance of fire roads and fuelbreaks. Suppression methods shall be those that cause the least resource damage commensurate with effective control.

Rare and Endangered Plants

Although many rare and endangered plants are known in the Clear Lake area, there are no confirmed populations within the unit boundaries. Past ownership and limited botanical exploration have contributed to the lack of knowledge of sensitive plant species within the unit.

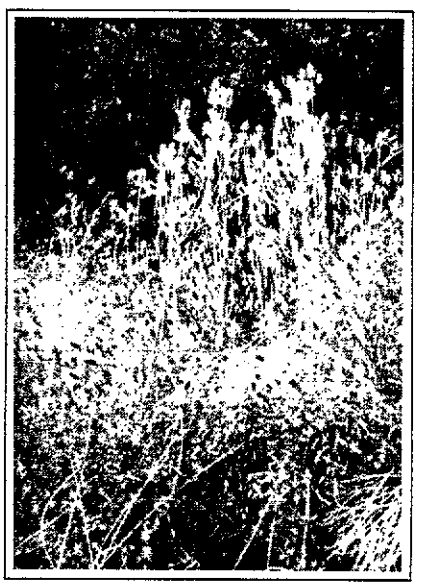
Rare and endangered plants can be inadvertently destroyed by facility development, maintenance programs, visitor use, or other activities, especially when the exact population locations, habitat requirements, and tolerances are not known.

> **Policy:** Rare and endangered plants, if found within Anderson Marsh State Historic Park, shall be protected and managed for their perpetuation, in accordance with state law (PRC, Division 2, Chapter 10, Section 1900).
>
> Systematic surveys for rare and endangered plants shall be made throughout the unit. If any rare or endangered species is found, all populations shall be mapped and management plans developed for their protection and perpetuation. Prior to any site-specific development, heavy use activities, or prescribed burns, additional surveys for rare or endangered plants shall be made during the flowering season in the areas that will be impacted.

Exotic Plants

Many exotic species have become naturalized in the unit and are successfully competing with native species. Perpetuation of native plant communities is dependent on the control and removal of exotic invaders.

> **Policy:** The department shall pursue a long-range objective of reducing exotic plants, including annual grasses and nonnative thistles, that have become established in the unit. The highest priority for control efforts shall be given to those species most invasive and conspicuous in the landscape, notwithstanding the use of historically significant exotic plants associated with the ranch complex.



Teasel is among the many exotic species that have spread to Anderson Marsh.

Landscaping

Nonnative species can detract from the natural appearance of the unit, escape into the wild and displace native species, have less habitat value for native wildlife, be more prone to insect attack and disease, and require permanent irrigation and greater maintenance costs. Landscaping in developed areas should consist of species indigenous to the area.

> **Policy:** If nonnative species are used in developed areas because no indigenous species are suitable for the purpose and location, or for historical reasons in the ranch house complex, these shall be species incapable of naturalizing and spreading into other areas of the unit.

Wildlife Resources

General Wildlife Mangement

Animal life is an important part of natural ecosystems and adds interest and variety to the visitor experience. Protection and perpetuation of natural wildlife populations is a major management objective at Anderson Marsh State Historic Park.

Anderson Marsh represents over one-half the remaining tule marsh habitat at Clear Lake, supporting a diverse and abundant avifauna.

Policy: Altered natural habitats shall be restored as nearly as possible to conditions that would exist 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 animal populations, the methods used shall be based upon sound principles of ecosystem management, be consistent with the general policies of the department, and avoid disturbance to other natural values of the park.

Wildlife Requiring Special Management Consideration

The state and federally-listed endangered bald eagle occurs at Anderson Marsh in significant numbers during winter, attracted by the abundant live fish and fish carrion. An American peregrine falcon, a state and federally-listed endangered species, was sighted at Anderson Marsh in September 1984. Marsh habitat, having an

Cooper's hawk, a species of special concern.

abundance of prey species, represents a prime feeding area for the peregrine falcon. The state-listed threatened California yellow-billed cuckoo was confirmed at Anderson Marsh as recently as 1973 in riparian habitat. This habitat has remained relatively stable since then and may still support this species. At least 12 other bird species that occur at Anderson Marsh are listed by the state as being of special concern due to their reduced breeding status statewide. Habitat preservation is a critical factor in the well-being of all of these animals.

Policy: Specific management programs shall be developed when appropriate for animal species that are threatened, endangered, or of special concern. Necessary and suitable habitat, where it exists, shall be perpetuated. Programs or projects undertaken at Anderson Marsh State Historic Park shall be planned and designed so that animal life requiring special management consideration will not be adversely affected. Resource management actions will focus on natural processes, in recognition of the fact that natural processes are mutually beneficial to all important resources.

The department shall conduct a thorough survey for the threatened California yellow-billed cuckoo at Anderson Marsh and prepare a management plan to enhance the survival potential of this species.

Ecological Values

Wetland Ecosystems

Black-crowned night heron. Birds are the most diverse group of animals present at Anderson Marsh.

The wetlands of California have been largely reduced in extent. Many of those remaining have been degraded by human activities in and around them. This damage has been recognized and corrective action has been taken as outlined in the

following **existing policy of the Resources Agency:**

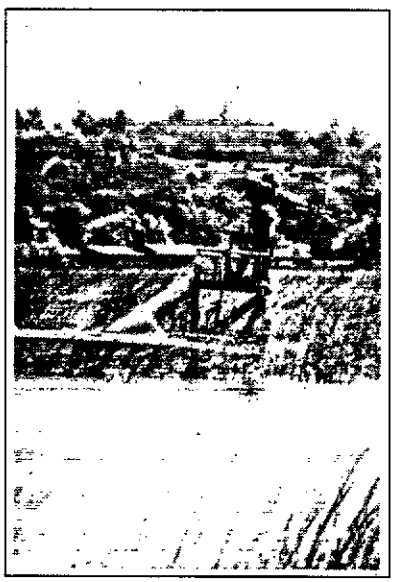
> "It is the basic policy of the Resources Agency that this agency and its departments, boards, and commissions will not authorize or approve projects that fill or otherwise harm or destroy coastal, estuarine, or inland wetlands."

For the purposes of this policy, wetlands are defined in Section 5812(a), Public Resources Code, as follows:

> "Wetlands means streams, channels, lakes, reservoirs, bays, estuaries, lagoons, marshes, and the lands underlying and adjoining such water, whether permanently or intermittently submerged, to the extent that such waters and lands support and contain significant fish, wildlife, recreational, esthetic, or scientific resources."

Protection of Anderson Marsh Wetland Habitat

Anderson Marsh provides approximately half of the remaining tule marsh at Clear Lake, and comprises nearly all of the tule marsh habitat in the lower arm. This important area provides nesting areas for birds during spring and spawning habitat for fish.



Tournament carp shooting near shore previously conducted in Anderson Marsh.

Deep water carp shooting at Anderson Marsh.

Intensive activities such as tournament fishing in shallow nearshore areas can disturb nesting avifauna and fish spawning habitat. In recent years an annual carp shoot resulted in boats moving along the tule stands and in persons moving on foot in the nearshore zone in pursuit of carp. This activity has been disruptive to spawning and nesting habitat and may have resulted in abandoned nest sites.

Policy: The Anderson Marsh wetland habitat (see Map 5) shall be managed for its long-term preservation and enhancement as a natural ecosystem. Only activities that are of a passive recreational nature, or have scientific, educational, or interpretive value, shall be permitted.

Tournament fishing outside the natural preserve may be allowed by permit, provided that the natural resource values of the unit are not destroyed. When tournament sites are selected within the unit, such factors as plant and animal life sensitivities shall be considered in determining conditions of the permit.

Seigler Creek

Perennial sections of Seigler Creek support populations of the Clear Lake hitch, California roach, Sacramento sucker, rainbow trout, and green sunfish.

The portion of Seigler Creek within the park usually has no surface flow from June through October. Streams that are seasonally dry are often thought to have little value as fish and wildlife habitat. However, Seigler Creek, like many of the seasonal streams tributary to Clear Lake, provides important spawning habitat for the Clear Lake hitch fish. Hitch enter these creeks in response to spring rains, spawn in the lower portions over gravel bottoms, and quickly return to the lake. Eggs hatch rapidly and the larvae also move downstream into the lake. These small seasonal streams are critical to the maintenance of the hitch population in Clear Lake.

Policy: The riparian and instream habitat of Seigler Creek within Anderson Marsh State Historic Park shall be preserved and managed to perpetuate the spawning of Clear Lake hitch and to maintain other

natural and scenic values. Construction shall not be allowed that would block any passage or movement of larvae or adult hitch, destroy or redistribute spawning substrate, or alter flow patterns. The department is also concerned about any activities outside the department's jurisdiction that may affect the creek's habitat within Anderson Marsh State Historic Park.

Riparian Ecosystems

Riparian ecosystems are important to the hydrology and wildlife of an area and have declined rapidly in their extent in the region and state.

Riparian vegetation provides an environment that is diverse and enhances watercourses with the capability of sustaining numerous aquatic and terrestrial organisms. Riparian vegetation along watercourses moderates temperature extremes, provides escape cover for animal life, and offers forage. Other watercourses without riparian vegetation do not support the same variety or multitude of organisms. These important ecosystems form a basic link in a complex food chain. Riparian habitats also provide ample nesting opportunities and are essential to the survival of the state-listed threatened California yellow-billed cuckoo.

> **Policy:** Riparian ecosystems at Anderson Marsh State Historic Park shall be managed for their long-term preservation and enhancement, restoring them to their former stature where possible.

Cooperative Ecosystem Management

The western boundary of Anderson Marsh State Historic Park is also a boundary of the McVicar Wildlife Sanctuary, a bird sanctuary owned by the National Audubon Society and managed by the local Redbud Audubon Chapter. This contiguous boundary bisects a large cross-section of the aquatic marsh. The Audubon Society shares objectives similar to those of the department.

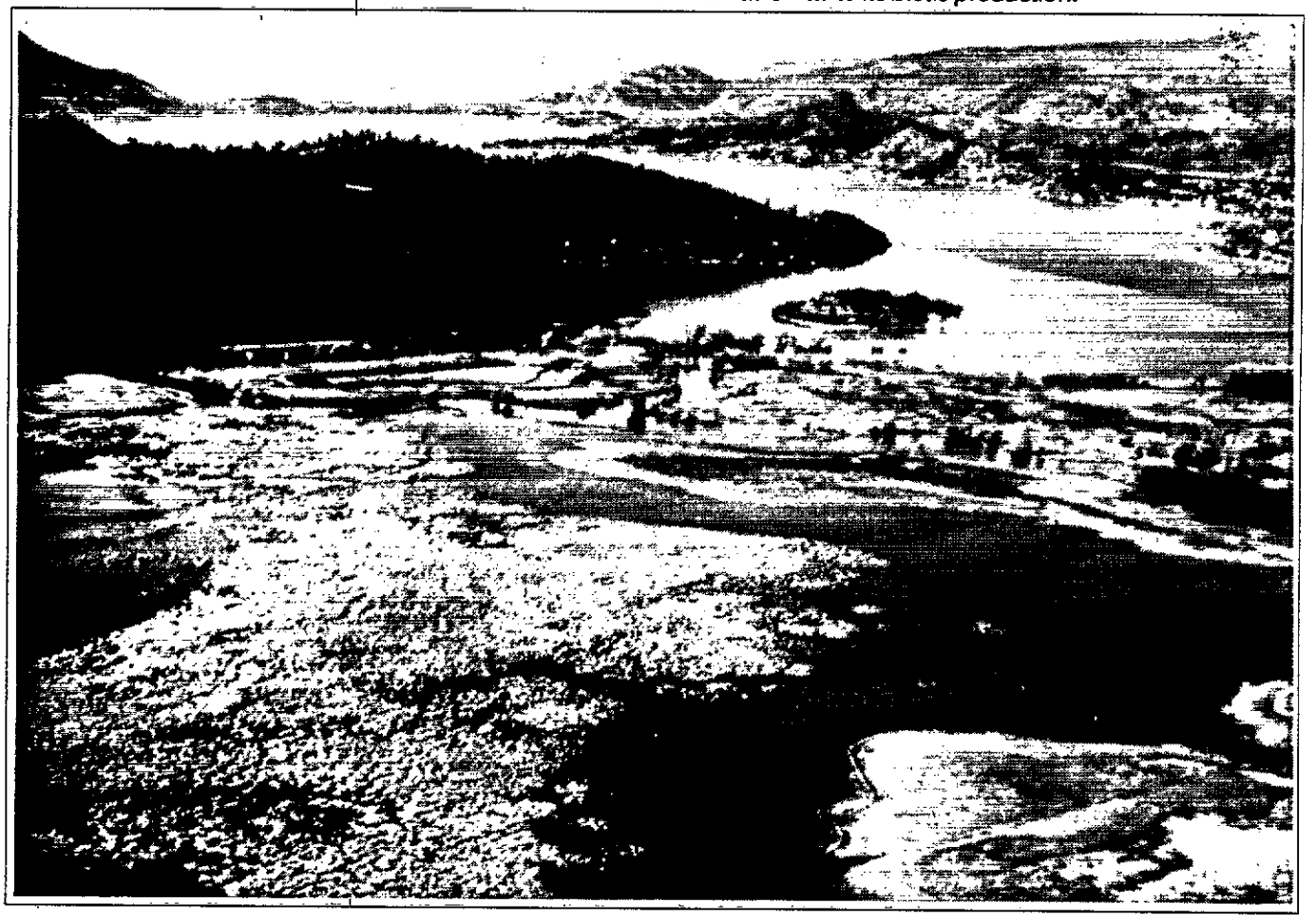
The integrity of the marsh as a healthy ecosystem is dependent upon the cooperation and mutually beneficial management actions of both the department and the National Audubon Society.

> **Policy:** The department shall cooperate with and assist, when possible, the National Audubon Society in managing Anderson Marsh in a manner consistent with its perpetuation as a diverse biotic community and aquatic ecosystem.

Inundation and Biotic Integrity

Flooding around the rim of Clear Lake has been a threat to health and safety and to property since the earliest human occupation of the area. Since the arrival of Euroamericans many attempts have been and continue to be made to control and prevent such catastrophic events. The department shares responsibility with other agencies for dealing with these problems, and for cooperating in responsible decisions and measures to lessen the severity of flooding. Flooding, however,

Preservation of the marsh habitat is vital to its biotic production.



is a natural event that has inherent benefits to natural ecosystems that have evolved with such conditions. Interference with these events may have negative environmental impacts. Artificial attempts to increase the rate and volume of flow in the Cache Creek Channel may have the effect of siphoning nutrients from Anderson Marsh and reducing the productivity of plant and animal life.

To avoid these losses, the department recognizes both the threats and benefits of flooding. Flood control projects should be those that alleviate future disasters without sacrifiicing the resources through incompatible or inappropriate relief measures.

Policy: The department shall cooperate with all agencies and parties responsible for flood control around Clear Lake. The department shall evaluate all flood control measures and project proposals for any potential effects on the Anderson Marsh ecosystem and other State Park System values. The department shall make this information available to the responsible agencies and parties and shall work toward finding solutions that are mutually beneficial.

The department shall work with the U.S. Army Corps of Engineers, the State Reclamation Board, and the affected counties to resolve problems associated with the operation and maintenance of the Clear Lake Dam on Cache Creek.

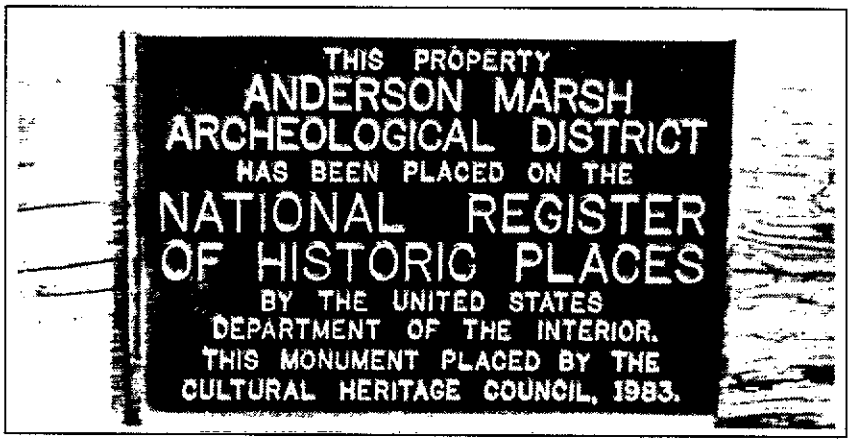
Cultural Resources

Management of Native American sites in Anderson Marsh State Historic Park is governed by federal and state statutes and department policies and directives. Federal statutes set management criteria for National Register Districts. The following portions of the Public Resources Code pertain to the management of cultural resources: Chapter 1.7, Section 5097.5 and Chapter 1.75, Section 5097.9. The following Resource Management Directives of the department pertain to the cultural resources at Anderson Marsh State Historic Park: Directives 10, 24, 25, 50-72, 75, and 76.

Native American Sites

Long-range management objectives for Anderson Marsh State Historic Park center on the protection, investigation, and interpretation of the unit's Native American sites.

Policy: The department shall protect and preserve all of the Native American resources at Anderson Marsh State Historic Park. The department shall prepare and implement a plan for the long-range management of



The 27 archeological sites in the state historic park are the centerpiece of the Anderson Marsh Archeological District.

Native American and archeological resources within the unit. This plan shall include programs for future research, curation, interpretation, and excavation of archeological resources. Such plan shall reflect the department policies regarding Native American concerns and involvement. Archeological and historical societies, universities, and interested groups or individuals shall be encouraged to participate in this program under the guidelines established by the management plan.

Archeological Site Remains

The archeological site remains in the park constitute one of the most complete records of prehistoric and Native American cultures in the entire State Park System. With the exception of certain types of quarry sites and possibly coastal collection areas, this group of sites covers the total resource procurement area of the Koi, a southeastern Pomo culture, as well as that of other, earlier cultures.

For more than 50 years archeologists have had an ongoing interest in Anderson Marsh. The extensiveness and antiquity of the archeological remains located here make this an important area for continuing research, collection, and curation. In 1984 a program of surface collection at endangered sites was initiated.

Policy: The department shall encourage the development of a facility for the analysis, curation, and interpretation of Native American artifacts. The purpose of local analysis and curation is to promote a better understanding of the prehistoric and Native American cultural resources of the Clear Lake area. Such a facility would serve as a local center for archeological scholars working in the Clear Lake area.

All artifacts recovered and all written data and documents generated by archeological work shall be curated at the unit or at another acceptable department or curatorial facility.

Although statutes, policies, and directives afford equal protection for all of the Native American archeological sites in Anderson Marsh State Historic Park, several of these sites are being damaged more rapidly and severely than others and so deserve special attention.

Sites CA-Lak-540 and CA-Lak-589/590

Site CA-Lak-540 lies in a saddle toward the southern end of Lewis Ridge. The saddle is the location of a ranch road intersectioon and mechanical activities associated with road use are causing moderate damage to the site. The maintenance of these ranch roads is necessary for fire control and public safety. The surface contexts of this site also suffer collection from being in a visitor use area.

The significant Native American sites within the unit include four recorded "village" sites, exhibiting a broad range of artifacts such as mortars (left) and petroglyphs (below).

Sites CA-Lak-589/590 encompass the entire north end and most of the west side of Lewis Ridge. These sites are midden contexts and are known to be more than 10,000 years old. They could be much older. Both of these sites have suffered through modern human intervention. Two barns and other minor modifications lie near the middle of Lak-589, and both sites have been surface collected by pothunters for a considerable time. Archeological

field work during the summer of 1984 resulted in the gridding and surface collection of a portion of the north end of Lak-589. The department encourages the continuation of this volunteer project.

The westward extension of the ranch road intersection in Lak-540 passes through midden deposit in Lak-590. Along the road, midden is visible and being damaged where the road drops off the ridge to the west. Vehicle traffic has caused rutting and accelerated erosion along this road.

> **Policy:** Should the nonhistoric ridge barns be removed, the department shall insure protection of the underlying archeological site CA-Lak-589.
>
> The department shall continue the collection of artifacts on the surface of CA-Lak-540 and CA-Lak 589/590 as a method to mitigate potential visitor impacts. If feasible, this surface collection should continue as part of an ongoing volunteer involvement.
>
> The department shall stabilize the road impacting CA-Lak-590 and eliminate vehicle traffic except for essential and emergency purposes. Fill may be used to protect the archeological site.

Site CA-Lak-656

Site CA-Lak-656 is a large village site located along the new channel of Molesworth Creek on the north edge of the unit. This site is known to be more than 10 feet in depth and more than 10,000 years old. The site has been affected by several modifications and casual use. In the mid-1970s Lake County dredged Molesworth Creek for use as a drainage ditch. A public utilities easement with buried utilities also passes through the site. At some time in the past a small concrete boat launching ramp was imbedded in the south bank of Molesworth Creek. In the summer of 1984 this ramp was at least 150 east of the shore of Clear Lake. Additionally, the site has suffered through use as a casual day-use and camping area. There is a considerable buildup of debris on the surface of the site, due both to these uses and to the dumping of trash. Any continued use of this area will further exacerbate existing site damage.

> **Policy:** The department shall work to reduce the effects of ongoing use and potential development at CA-Lak-656 through the use of fill and planting. If it is to be capped with a layer of protective soil, the site shall be completely mapped, surface artifacts shall be collected, and the midden shall be tested prior to capping. Following capping, the site can be used for passive recreational purposes.

Cache Creek Sites

All the sites in the unit along Cache Creek are suffering due to natural hydraulic action and human intervention. These sites are important resources, which are being damaged by bank erosion and periodic channel dredging. This damage should be mitigated as part of a long-term archeological program for the unit.

> **Policy:** The department shall mitigate damage to Native American archeological sites CA-Lak-30, 69, 525, 530, 533, 537, 538, 625, and 635. Local volunteer groups shall be encouraged to participate in mitigation as prescribed under the long-range management plan administered by the department. Every attempt shall be made to preserve information about these unique resources and the cultures they represent.

Remaining Southeastern Pomo

The remnant population of the Koi Pomo reside with other southeastern Pomo at Elem Colony on the east side of Clear Lake a few miles north of the state historic park. Residents of Elem Colony have been active participants in several programs at the park. The department wishes to maintain a positive relationship with the southeastern Pomo and, within existing statutes and directives, to encourage further traditional activities in the unit.

> **Policy:** The department shall encourage the southeastern Pomo to continue traditional activities of southeastern Pomo at Anderson Marsh State Historic Park so long as these activities are nondestructive to cultural and natural resources of the unit and appropriate to the unit's purposes. The department shall also encourage the traditional collection of plant materials by the southeastern Pomo, or collecting for limited interpretive purposes, by permit issued by the appropriate department office. Plant collection shall be monitored in accordance with the department's Native California Indian Gathering Policy (June 1985).
>
> Plant collecting shall generally be limited to areas outside the natural preserve. When plant collecting is permitted within the natural preserve, the species taken shall be protected from overcollection so as not to reduce their vigor or extent. Timing of such collection shall not interfere with the breeding and nesting success of avifauna.

Euroamerican Standing Structures

Anderson Ranch House Complex HS1 (Features A-G)

Individual structures are in varying states of repair ranging from good to poor condition. All of the structures, except the privies (Feature D) and the smokehouse (Feature F), are being used.

> **Policy:** The historic integrity of the ranch house complex shall be maintained. No structures currently in use shall be removed from the complex. No new structures or vegetation shall be introduced into the immediate vicinity of the complex without thorough study and review of the proposed alterations.
>
> The department shall develop a historically accurate vegetation landscape plan for the ranch house complex which identifies and locates the native and nonnative plant species. Landscaping shall be consistent with historic documentation and with other policies in this Resource Element.

Anderson Ranch House HS1 - Feature A

The house is in dilapidated condition. A preliminary architectural evaluation indicates that it is in need of both structural and foundation work as well as extensive nonstructural repairs. The electrical wiring is original and very primitive. The house is suitable for adaptive reuse or has potential as a house museum.

> **Policy:** The ranch house shall be preserved and protected along with its surrounding yard. Any necessary alterations or repairs to the interior or exterior of the structure shall be made consistent with established Resource Mangement Directives. The department shall prepare a detailed plan regarding stabilization, repair, and restoration of the house and surrounding yard. It is recommended that any restoration of the exterior return the house to its appearance circa 1920 when the present east (kitchen) wing was added to the structure. The present porch roofline should be retained. All restoration should be based on existing historic photographs.

North Barn HS1 - Feature B

The barn appears to be in fair condition. Further structural examination is required to determine stability and evaluate the scope of repair work needed. The structure is suitable for adaptive reuse.

Policy: The barn and rear shed shall be retained with no further alterations to their exteriors. Any alteration of the interior of the shed shall be made consistent with established Resource Management Directives.

Esthetic Resources

The relatively small size and flat topography of Anderson Marsh State Historic Park combine to make views to and from it an important consideration in protecting the esthetic qualities of this environment.

Due to the openness and high visibility of most of the unit, interior views are subject to modification and impairment.

Policy: To protect important interior views and to preserve the esthetic qualities of Anderson Marsh State Historic Park, the department shall site new development outside of scenic areas or subordinate new development to the natural surroundings. New development should be located adjacent to existing or planned development, or along edges of scenic or open areas where existing vegetation, landforms, and visual mitigation will minimize visual impacts.

Recreation Resources

The superlative natural and cultural resources at Anderson Marsh State Historic Park provide recreational opportunities of both regional and statewide significance, particularly Native American studies, passive recreation like nature study and bird-watching, fishing, hiking, and the study of early ranching history.

Boating and fishing are popular activities at the unit.

Policy: The department shall provide recreational facilities and interpretation that will make the unit's values available to the public in a manner consistent with their perpetuation.

• Resource Value, Sensitivity, and Constraints

The California Public Resources Code, Section 5019.5, requires that a land carrying capacity survey be made prior to the preparation of any development plan for any state park or recreation area. The first step in determining appropriate carrying capacity is the identification of natural and cultural resource values, sensitivities, and constraints. Information on value, sensitivity, and constraints was used in the analysis and determination of carrying capacity and allowable use intensity, both of which are found in the Land Use Element. Other factors considered are classification and purpose of the unit, recreation needs, and social carrying capacity, or the desired quality of the recreation experience.

Resource Value

Resource value is the relative importance of a cultural or natural resource to society. Resources of statewide or regional significance are considered to be of high value or importance. Archeological sites and features, and historical structures (over 50 years old) are of high value. Specific factors used in evaluating natural resource values include rarity, endangerment, and uniqueness. For example, federal and state-listed rare, threatened, or endangered species, and remnants of California's once extensive wetland habitats, are considered to be of high value.

Resource Sensitivity

Resource sensitivity is a term used to qualify the degree to which a resource can be adversely impacted by human activity. Cultural and natural resource sensitivity play a key role in determining appropriate visitor use in a particular area.

Cultural Resource Sensitivities

The sensitivity of cultural sites is based primarily on the type of site, current condition of the site, and potential for destruction (see Map 4).

- **High to extreme** sensitivities exist in areas with known sites that contain significant cultural remains, including those of large village and use sites, human burials, and artifacts of extreme antiquity, or areas with surface indicators of such sites.
- **Moderate to high** sensitivities exist in areas bordering known archeological sites because such areas have high potential of containing subsurface cultural remains, based on their context and proximity to known sites.
- **Low to moderate** sensitivities exist in areas removed from known archeological sites, where there are no surface indicators of subsurface cultural deposits.

Natural Resource Sensitivities

Lands within Anderson Marsh State Historic Park and their natural resources have been classified into zones of sensitivity, described as high, moderate, and low. Numerous factors are considered in determining the ecological sensitivity of an area. A major consideration is the resistance and resiliency of the site's vegetation and its value as wildlife habitat. The relative resistance or susceptibility of various plant communities and their wildlife values to disturbances is shown in the description of the three sensitivity categories (see Map 5).

- Areas of **high sensitivity** are charcterized by plant communities and wildlife habitat with relatively low resistance and high susceptibility to disturbing forces. Examples include areas of oak regeneration and sites used for spawning, breeding, nesting, and foraging by sensitive species. Only buffer areas necessary to maintain the integrity of these sites are included in this designation.

- Areas of **moderate sensitivity** include lands and resources of significant biological productivity but able to sustain a moderate level of disturbing forces, with the ability to recover from such use levels successfully within a relatively short duration.

- Areas of **low sensitivity** include lands and resources able to withstand and recover from high levels of disturbance.

Resource Constraints

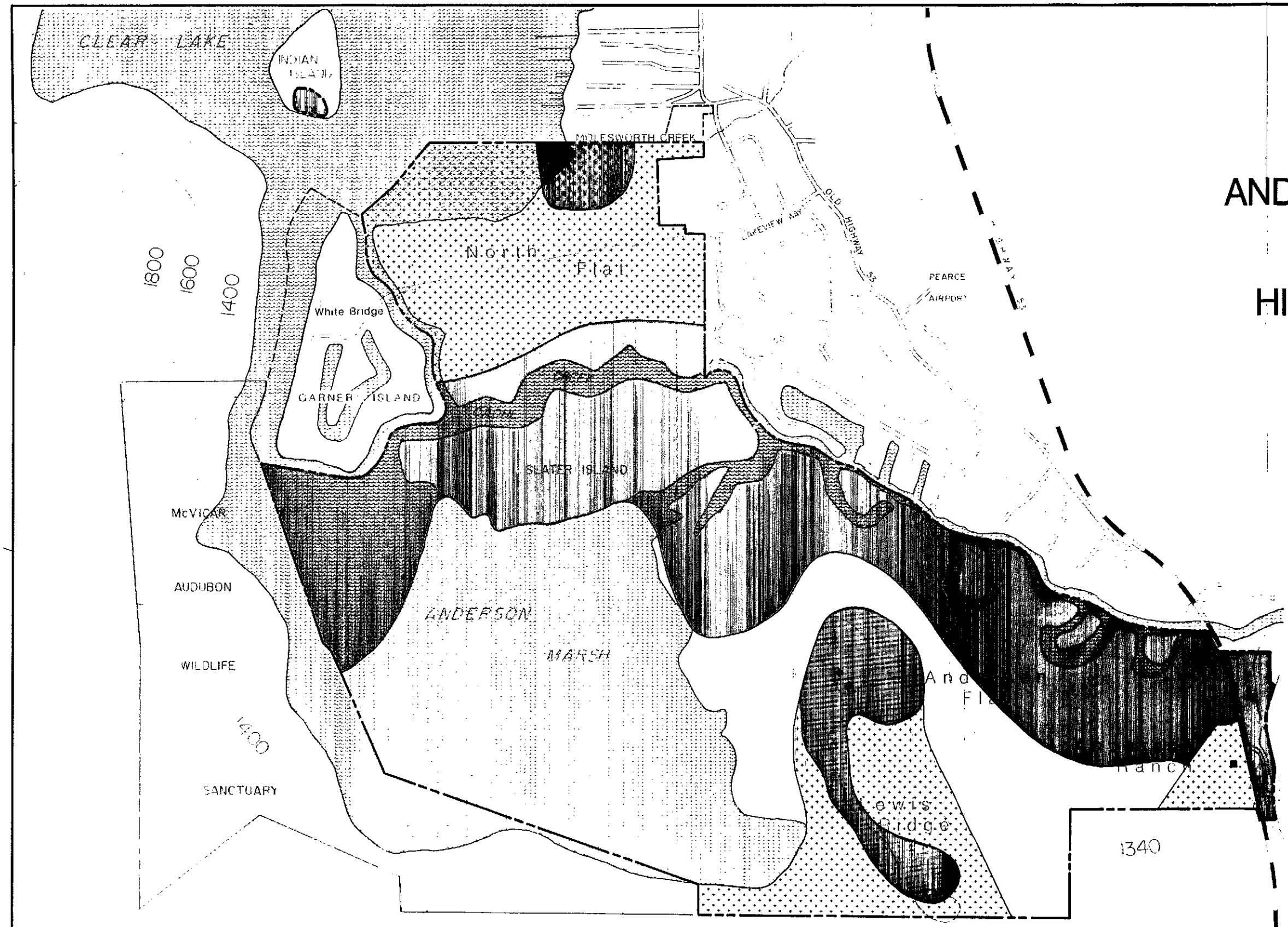
Resource constraints are physical conditions or occurrences that could make visitor use or facility development unsafe, financially more costly, or undesirable. They are determined by evaluating such factors as erodibility and the compactive potential of soils, geologic hazards, slope stability and relief, hydrologic conditions, the potential for pollution of surface waters, and flooding. Two constraints for Anderson Marsh State Historic Park are mapped that need to be considered in land use planning -- potential flooding and soil erosion (see Maps 6 and 7).

Flood-prone areas in the state historic park are mapped in zones that correspond to seven contour intervals. The zones range from low areas that are almost always inundated to areas that have never flooded during the 113-year period high lake levels have been recorded.

The probability of flooding within each zone was established based on the frequency of inundation over the last 113 years (see Map 6).

The soil erosion hazard was mapped according to U.S. Soil Conservation Service criteria for park-type developments, with ratings of severe, moderate, and slight as follows (see Map 7):

- **Severe constraints** occur on slopes of 15 to 30 percent under bare soil conditions (denuded) for the Konocti Series.
- **Moderate constraints** occur on slopes of 15 to 30 percent under bare soil conditions for the Hambright Series, 2 to 15 percent slopes for the Benridge Series, and 5 to 8 percent slopes for the Asbill Series.
- **Slight constraints** occur on slopes less than 8 percent under bare soil conditions for all soil series throughout the remainder of the park. The slight constraints were not mapped.



ANDERSON MARSH STATE HISTORIC PARK

0 250 500 1000
SCALE IN FEET

N

LEGEND

FUNDED ACQUISITION
(AS OF 5/87)

PARK BOUNDARY

HIGH TO EXTREME SENSITIVITY

AREAS WITH KNOWN SITES CONTAINING SIGNIFICANT CULTURAL REMAINS, INCLUDING THOSE OF LARGE VILLAGE AND USE SITES, HUMAN BURIALS AND ARTIFACTS OF EXTREME ANTIQUITY OR AREAS WITH SURFACE INDICATORS OF SUCH SITES.

MODERATE TO HIGH SENSITIVITY

AREAS BORDERING OR DIRECTLY ADJACENT TO KNOWN ARCHEOLOGICAL SITES AND HAVING A HIGH POTENTIAL OF CONTAINING SUBSURFACE CULTURAL REMAINS. ALSO AREAS CONTAINING HISTORIC STRUCTURES AND THEIR IMMEDIATE SETTINGS.

LOW TO MODERATE SENSITIVITY

AREAS REMOVED FROM KNOWN ARCHEOLOGICAL SITES WITH NO SURFACE INDICATORS OF SUBSURFACE CULTURAL DEPOSITS. INCLUDES NON-HISTORIC RIDGE BARN STRUCTURES LOCATED ON TOP OF HIGH SENSITIVITY ARCHEOLOCIAL SITES.

(1) ALL BOUNDARIES APPROXIMATED.

(2) ALL PROPOSALS REGARDING LAND ACQUISITION ARE INTENDED FOR LONG RANGE PLANNING PURPOSES ONLY, AND DO NOT REPRESENT A COMMITMENT TO ACQUIRE.

CULTURAL RESOURCE SENSITIVITY

DESIGNED | DRAWN 5/87 | CHECKED

DATE | REVISIONS

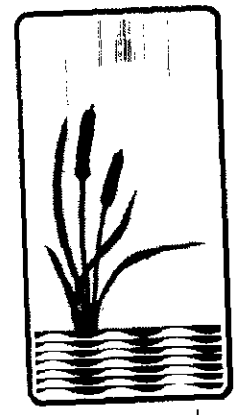
RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION
APPROVED _____ DATE _____

ANDERSON MARSH STATE HISTORIC PARK
CULTURAL RESOURCE SENSITIVITY
GENERAL PLAN - RESOURCE ELEMENT

DRAWING No. 23062

Map 4

ANDERSON MARSH STATE HISTORIC PARK



CLEAR LAKE

INDIAN ISLAND

Conservation Easement

MIDDLETOWN CREEK

OLD HIGHWAY 53

LAKEVIEW WAY

PEARCE AIRPORT

North Flat

GARNER ISLAND

White Bridge

McVICAR

AUDUBON WILDLIFE SANCTUARY

ANDERSON CREEK

Anderson Flat

Anderson Ranch

Lewis Ridge

1800 1600 1400 1340

1,12,13,14,16,17,18,19 | 3,11,12,14 | 8,12,13,14,15,16,17,18,19 | 7 | 5,9,12 | 2,9,12,13,14 | 1,12,13,14,15,16,17 | 16,17,18,19 | 4,9,10,12 | 5,9,10,12 | 8,12,13,14,15, | 1,12,14,15,16,17,18,19 | 6 | 15 | 3,14 | 4,9,12

0 250 500 1000
SCALE IN FEET

N

LEGEND

SENSITIVITY
- HIGH
- MODERATE
- LOW

ECOLOGICAL UNIT
1. Emergent Tule Marsh (Wetland[c])
2. Sedge/Rush Marsh (Wetland[c])
3. Riparian Woodland (Wetland[c])
4. Oak Woodland/Forest Regeneration[d]
5. Oak Woodland/Forest[e]
6. Modified Woodland (Rural Residential)
7. Non-Native Grassland/Forbs
8. Open Water

WILDLIFE HABITAT
9. Bald Eagle*, high value foraging and roosting sites.
10. Heron Rookery, high value nesting sites.
11. Yellow-Billed Cuckoo*, high value nesting and foraging sites.
12. Peregrine Falcon*, high value foraging and roosting area.
13. Waterfowl, high value nesting and foraging sites.
14. Water and Shore Birds, high value nesting, foraging, and roosting sites.
15. Clear Lake Hitch+ high value spawning and nursery sites.
16. Sacramento Blackfish+, high value spawning and nursery sites.
17. Tulesperch+, high value spawning and nursery sites.
18. Sacramento Perch+, high value spawning and nursery sites.
19. Game Fish, high value spawning and nursery sites.

[a]Sensitivity ratings are based on the susceptibility of the resource to disturbance by visitor activities such as picnicking, trail use, and boating.

[b]Value ratings are relative to the regional and statewide significance of ecosystems experiencing severe limitations from reduction and conversion, and to the use and dependence of a wildlife species on an ecological unit. While a particular habitat's sensitivity may be low, its value may be high because it is a primary nesting and/or foraging area for a wildlife species with a high sensitivity and value.

[c]High regional and statewide value due to severe reduction and presently limited distribution. Wetland vegetation density and extent depicted on the map is typical of the cover present during the nesting season.

[d]High regional and statewide value due to declining recruitment of individuals into the population.

[e]High regional and statewide value due to declining extent.

*Federal and/or State-listed threatened or endangered species.
+Native fish.

NATURAL RESOURCE SENSITIVITY

DESIGNED | DRAWN 5/87 | CHECKED

DATE

REVISIONS

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION

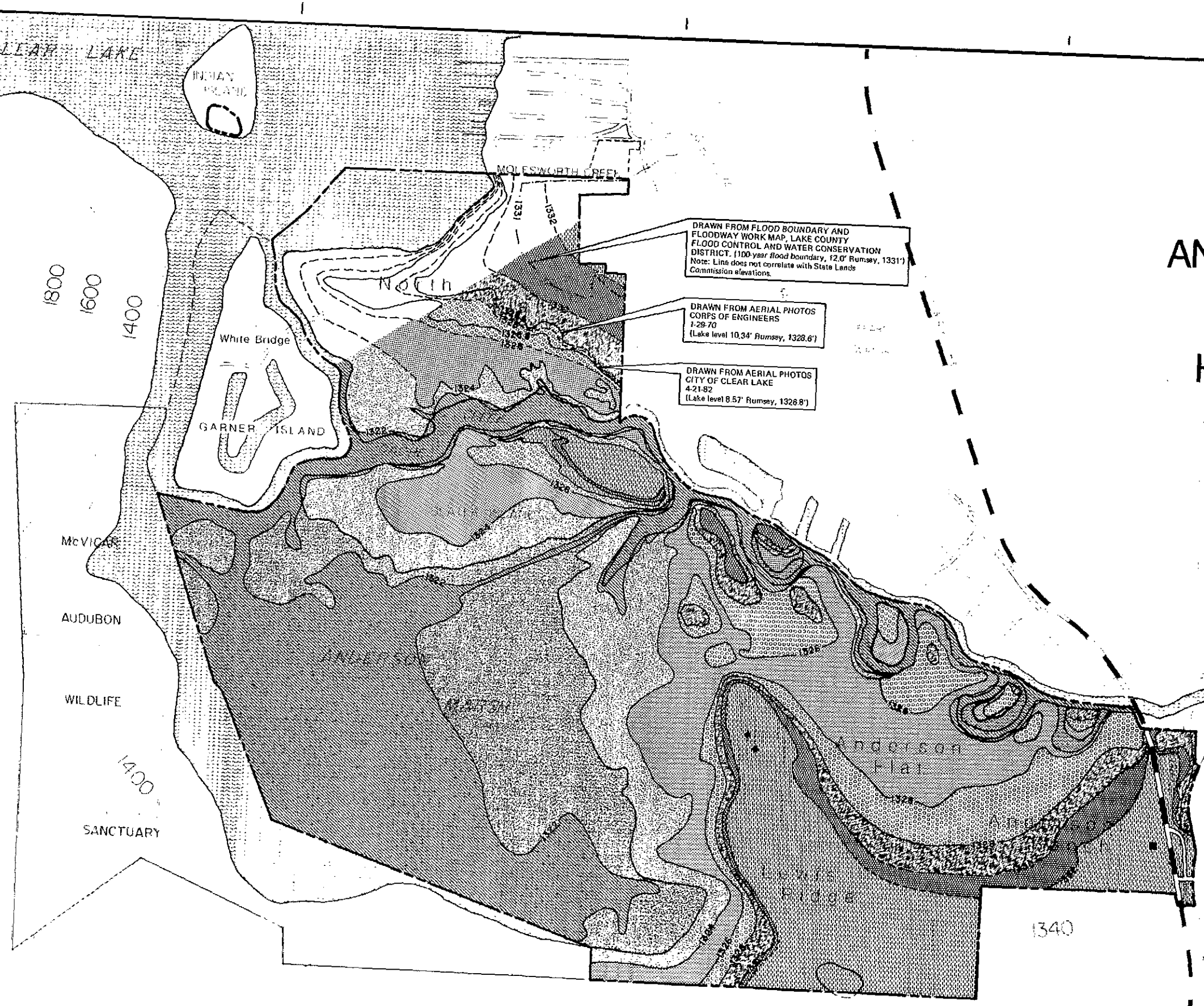
DATE

APPROVED

ANDERSON MARSH STATE HISTORIC PARK
NATURAL RESOURCE SENSITIVITY
GENERAL PLAN - RESOURCE ELEMENT

DRAWING NO. 23063

Map 5



FLOOD PRONE AREAS

ANDERSON MARSH STATE HISTORIC PARK

DESIGNED | DRAWN 5/87 | CHECKED

REVISIONS | DATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION

APPROVED _____ DATE _____

ANDERSON MARSH STATE HISTORIC PARK
RESOURCE CONSTRAINTS: FLOOD PRONE AREAS
GENERAL PLAN - RESOURCE ELEMENT

DRAWING NO. 23064

Map 6

CLEAR LAKE

INDIAN MOUND

MOLE SWORTH CREEK

North Flat

1800
1600
1400

White Bridge

CARNER ISLAND

CACHE

MARY ISLAND

253

McVICAR

AUDUBON

WILDLIFE

SANCTUARY

ANDERSON MARSH

1400

Anderson Flat

Anderson Ranch

Lewis Bridge

366

1340

OLD HIGHWAY 99

PEAK OF

ANDERSON MARSH STATE HISTORIC PARK

0 250 500 1000
SCALE IN FEET

N

LEGEND

SOIL MAPPING UNIT

253 KONOCTI – HAMBRIGHT COMPLEX, 15-30% SLOPES
KONOCTI — SEVERE
HAMBRIGHT — MODERATE

266 BENRIDGE VARIANT LOAM, 2-15% SLOPES — MODERATE

SLIGHT

NOTE: SOIL EROSION HAZARD RATING IS BASED ON BARE SOIL CONDITIONS. VEGETATIVE COVER WILL LOWER THE HAZARD OF EROSION.

ONLY SOILS ON SLOPES GREATER THAN 8 PERCENT ARE MAPPED. SOILS NOT MAPPED HAVE A SLIGHT EROSION HAZARD RATING.

SOURCE: SOIL CONSERVATION SERVICE.

SOIL EROSION HAZARD

DESIGNED | DRAWN 5/87 | CHECKED

DATE | REVISIONS

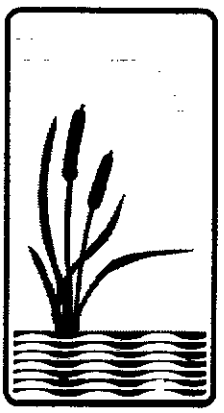
RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION
APPROVED ____ DATE ____

ANDERSON MARSH STATE HISTORIC PARK
RESOURCE CONSTRAINTS:
SOIL EROSION HAZARD
GENERAL PLAN - RESOURCE ELEMENT

DRAWING NO. 23065

Map 7

Interpretive Element



Interpretive Element

Interpretation aims at enhancing public enjoyment and benefit in the State Park System through increasing understanding of significant cultural and natural resources and encouraging appreciation of their value. It is founded on the premise that knowledge deepens the park experience, providing lasting benefits not only to individuals but to society in general. The Interpretive Element works toward this goal by identifying park themes and a variety of facilities and programs appropriate for their presentation.

Interpretive Considerations

This section addresses positive and negative influences that could affect interpretive activities at Anderson Marsh State Historic Park. Four considerations are examined: Environmental Influences, Visitors and Their Expectations, Existing Media and Methods, and the Interpretive Association.

• Environmental Influences

Natural Resources

The marsh, riparian, grassland, and oak woodland areas of the park are home to many plants and animals that present a wealth of material for interpretation and enjoyment. Fragile ecological areas need to be protected from intentional or accidental disturbance, and visitors need to be protected from some natural resources. Sensitive areas include the vast nesting areas of the marshland, the great blue heron rookery and great horned owl roosting areas of Slater Island, the American bald eagle roosting areas along the periphery of the marsh, the short-eared owl roosting areas of Anderson Flat, and riparian wildlife habitats in the natural preserve. Visitors should be aware of the western rattlesnakes along Lewis Ridge, Slater Island, and Garner Island; poison oak, stinging nettles, falling oak branches, cockleburs, star thistle, and other pointed plants; and in some locations, stinging insects.

The climate at Anderson Marsh is mild and warm in the spring and fall. The summers can be very hot, which limits mid-day activities to those who swim or can withstand the heat. During winter rainstorms, trails become muddy, lake levels rise, and inundation of the marsh and creekside habitats makes some trails inaccessible. Some of the most interesting areas of the park are accessible only by boat.

There are several species of plants in the park that special groups and individuals wish to collect for cultural and traditional purposes: willow, soap root, sedge root, tule,

walnut, blackberry, wild plum, and others. Gathering should be done only in accordance with the departmental collection permit policy to prevent injury to this important interpretive resource (see Resource Element policy section).

Archeological Resources

The 10,000-year-old archeological resource at Anderson Marsh provides a wealth of material, which can be interpreted in two ways: Native American ancient culture and the science of archeology. Native Americans and archeologists can provide information about what it was like to live in the Clear Lake Basin thousands of years ago. On-site interpretation of an archeological area risks increasing vandalism or unauthorized collecting. Giving the reasons for rules prohibiting collecting can help mitigate this problem.

Archeologists should minimize the visual impact of their field lab, vehicular transport of equipment, and storage of on-site equipment. Recording and accessioning methods must be coordinated with the department to prevent misplacement or loss of artifacts and to avoid duplication of effort by different groups.

The numerous archeological sites greatly limit potential locations of interpretive facilities.

Historical Resources

The Anderson Ranch structures provide an historic setting for living history and other interpretive events; however, most of the buildings are in need of substantial stabilization and renovation. A balance between safety, security, and visitor access needs to be developed. Security systems should be designed to blend with the historic fabric of structures to protect the building's integrity and should not detract from the interpretive message. Smoking should not be allowed in the historic buildings in order to reduce the fire hazard and protect furnishings from smoke residues. Visitor access to certain parts of the buildings may be restricted for logistic or safety reasons (i.e., storage and office space for staff or volunteers).

The Anderson ranch house, which is a major attraction and the present interpretive center, is located adjacent to State Highway 53. The noise from vehicular traffic can be overwhelming at times and interferes with effective communication. A sound wall could decrease this negative influence.

Human-Made Environmental Influences

Some of the influences are positive: the park unit is close to local communities in Lake County and within two hours of major metropolitan areas of San Francisco and Sacramento; the park is located on Highway 53 and is easily accessible to visitors; several schools are nearby from which groups may take field trips to the park; and Clear Lake is a seasonally popular tourist area and provides a potentially large population of park visitors.

There are also negative influences. Highway 53, which runs through the park near its eastern boundary, is scheduled to be widened. Depending on its alignment, the highway will either be closer to the Anderson ranch house or will severely encroach upon Seigler Creek's west bank. It could significantly alter the stream course, as well as eliminate a significant portion of the riparian woodland habitat. Current noise levels of Highway 53 are high and affect the interpretive environment. None of the proposed highway alterations will improve the noise levels unless a sound wall is constructed.

There has been some controversy regarding industrial/commercial zoning of property lying to the south of the park. This problem, from the park's perspective, seems to have been resolved at this time, but if commercial or other development is ever allowed there in the future, it will visually intrude upon the natural setting of the park and the view from the proposed Pomo Village at the southeast end of Lewis Ridge. Existing development around the park limits natural viewsheds.

Flood control measures proposed by the U.S. Army Corps of Engineers, which would include widening Cache Creek within the park, would also mean certain disturbance, if not outright destruction, of the riparian woodland habitat along the south sector's shoreline, significantly altering a major portion of the natural preserve (see Resource Element, Natural Resources Policies).

• Visitors and Their Expectations

This section reviews what visitors expect in the way of interpretation at the park. This information is based on staff observations and information gathered during the planning process.

Through the public involvement process, the public has expressed the desire to improve and expand interpretive facilities and programs at the park. Among the suggestions:

- Expand the existing trail system to include small bridges and elevated boardwalks in the marsh and creekside environments.
- Develop a self-guided interpretive loop trail and a marsh overlook site.
- Install more interpretive panels, signs, and trail markers.
- Provide rowboats or canoes for tours of the marsh.
- Provide pontoon boat tours led by volunteer interpreters.
- Reconstruct a Living History Indian Village.
- Restore and refurnish the historic ranch buildings.
- Construct a visitor center to house artifacts, displays, field lab, and auditorium.
- Develop environmental living and living history programs.
- Develop a walk-through archeological excavation.
- Implement a Native American Days event.
- If Garner Island is acquired, develop a Native American cultural/artifact display center.
- Provide a balanced program of interpretation of all park resources.
- Develop senior citizen access to strategic areas of the park.

• Existing Media and Methods

Media

Existing park interpretive development consists mainly of static displays located in the rooms of the Anderson ranch house. Most of the displays have been developed by volunteers or park staff. In the center section of the house, a general overview of the park's resources is provided by a wall map of the park, some historic ranching implements, and a small Native American artifact collection. The Interpretive Association maintains a small sales table here that includes a Native American coloring book, a few hand-crafted items, and a brochure with an overview of the park and trail map. A new departmental brochure is now available. The west wing, or parlor,

focuses on the Anderson family and its turn-of-the-century lifestyle. Historic photographs are displayed on the walls, shelves and fireplace mantel. The east wing, or kitchen, exhibits several historic cooking implements. An historic wood cookstove, believed to be identical to that used by the Andersons, will be displayed here when foundation stabilization work is completed. Upstairs, above the parlor, miscellaneous natural resource items are on display. An audio-visual cabinet, cassette recorder, slide-synchronizer unit, and two Kodak projectors make slide programs possible.

Pomo today, in traditional dress, still practice their cultural heritage.

There are about four miles of maintained hiking trails in the park. At present, there is only one interpretive panel with a shelter along the trail system. One archeological site (CA-Lak-589) is available for public viewing.

The Cultural Heritage Council's 1984 Archeological Summer Field School for archeology students constructed three tule huts and two tool manufacturing stations as part of a proposed Pomo Village. These structures are substantially in need of repair. Two interpretive panels were scheduled to be placed at the site in 1987.

Methods

Rangers and docents lead tours of the ranch house and interpret its history and the general history of the park. For groups and special events, the house tour can also include a brief slide presentation. Guided hikes are provided by the unit ranger or trained docents.

Five special events are sponsored by the Anderson Marsh Interpretive Association each year. The Tea and Musicale, Blackberry Festival, Christmas at the Ranch House, Native American Days, and Ranch Heritage Days interpret the past through living history programs.

The Cultural Heritage Council's Archeological Summer Field School interprets the archeological setting and Native American culture, and carries out excavation, collection, and curatorial functions.

• The Interpretive Association

The Anderson Marsh Interpretive Association is an energetic group of approximately 130 members who support the park and help out at special events. A smaller group of devoted and trained docents regularly guides hikes and gives building tours and presentations to organized groups. The association has financed the purchase of an audio-visual sound recording system, various taxidermic animals, and an authentic wood cookstove.

The volunteers have invested thousands of hours in organizing and holding several special annual events for the last three years, and in doing so have demonstrated a commitment to supporting Anderson Marsh State Historic Park. They are an integral part of the park's programs, helping visitors enjoy a hospitable and educational visit. Their participation in future interpretive programs will be essential to the programs' continued success.

Interpretive Period

Because of its abundant resources, the marsh and the surrounding area have been continuously occupied by human beings for at least 10,000 years. The Interpretive Period will include the flow of history from the earliest known human occupation to the present. Ranch interpretation will focus on the period from 1900 to 1930.

Interpretive Themes

The overall interpretive theme for Anderson Marsh State Historic Park is "Anderson Marsh: Abiding Sanctuary Amid Changing Peoples and Ways." The marsh is sometimes dry land, muddy bog, or flooded lake. It is a naturally protected refuge that attracts abundant wildlife. Human beings were attracted to the periphery of the marsh as a dwelling place thousands of years ago. Artifact discoveries by archeologists suggest an ancient culture characterized by stone tool technology. The advent of Euroamerican

explorers and settlers brought a new culture and technology to the shores of Clear Lake: livestock and crop-raising, steel tools, machines, and later, electricity and the internal combustion engine. Yet, despite human influences, the marsh remains a tranquil sanctuary amid changing peoples and ways.

The following hierarchy of themes denotes their significance to the interpretive plan: a primary theme is indispensible to the interpretive program; a subtheme is a thematic division of a primary theme; and a secondary theme is important but dispensible if means are not available for its presentation.

• Natural History Themes

Primary Theme
Creation of a Marshland: Earthquakes, Volcanoes and the Clear Lake Basin
The cataclysmic formation of the Clear Lake Basin should be explained, describing the creation of islands, ridges, changing water levels, and the Cache Creek outlet channel that formed the wetlands now within the park.

Subtheme
Konocti, Kah-Bel, and Ka-Ba-Tin: Creation Stories
The Native American stories associated with the beginnings of Clear Lake (Ka-Ba-Tin) and its mountains give another perspective to the creation of the area's geologic and hydrologic features.

Primary Theme
Changing Water Levels, Changing Habitats: The Evolution of Wetlands
The evolution of wetlands to grasslands and woodlands should be interpreted to help visitors understand the dynamic interactions between life forms and their geologic and hydrologic environments.

Primary Theme
Journey Through Four Worlds: Plants and Wildlife of Anderson Marsh
The four main vegetation habitats (riparian, oak woodland, grassland, and freshwater marsh) and their over 136 plant species should be described, emphasizing the seven main plant communities within the four habitats to explain each ecosystem's relation to the underlying water table and geologic features. Each ecosystem's evolutionary stage can be related to the overall geographic progression of plant habitats. The two major wildlife habitats (wetlands environment and terrestrial environments) and their over 300 wildlife species should be described. Emphasis on the six wildlife communities within the two habitats will explain

each ecosystem's interrelationship with its corresponding plant community.

Subtheme
Out of Water or Underwater: Life in the Marsh Habitat
This habitat is the largest in the park and includes two plant and three wildlife communities. The sedge-rush prairie, a relatively simple plant community covering the majority of the low-lying areas of the park, has the ability to withstand flooding. The tule prairie has methods of surviving different water levels. The open water wildlife community is an important resting and feeding area for resident and migratory birds and other aquatic life. The importance of the open water as a spawning ground for several fish species and of the emergent vegetation wildlife community as a nesting area for breeding waterbirds should be described. The marsh wildlife community, where water and land meet, features the largest number of individuals and a significant number of wildlife species. The American Bald Eagle visits the marsh habitat in the winter months. The importance of preserving and protecting these endangered birds and other wildlife and their habitats should be interpreted.

Subtheme
Abundant Life at the Water's Edge: The Riparian Habitat
This habitat is the smallest in the park but supports the greatest diversity and density of wildlife. It includes two plant communities and one wildlife community. The dense, multistoried cottonwood-willow woodland and its dependence on the waters of Cache Creek, the lake shoreline, and the marsh should be interpreted as well as the valley oak forest, which consists of the stands of trees, understory shrubs, and herbaceous plants of Slater Island, Seigler Creek, and the southern edge of the marsh. The riparian woodland wildlife community is a great attraction to many forms of wildlife including abundant insects that form the basis of aquatic and terrestrial food chains. The diversity and density of this wildlife community should be interpreted.

Subtheme
Life in the Open Fields: The Grassland Habitat
This habitat includes one plant and one wildlife community. Most exotic plant species within the park grow in the nonnative grassland plant community. The historic backgrounds and competitiveness of these imported plants should be interpreted. Seed production and insect attraction in the grassland wildlife community needs to be interpreted in relation to the wildlife that comes here to feed and hunt.

Subtheme
High and Dry: Life in the Oak Woodland Habitat
This habitat includes two plant communities and one wildlife community. Along the higher and steeper slopes of Lewis Ridge lies the blue oak woodland consisting of a stand of blue oak trees with an understory of grasses, herbs, and chapparal. The valley oak woodland, which includes the largest of the trees in the park, is located on the lower slopes and deeper soils. The oak woodland wildlife community, with its seclusion and safety, provides homes for many of the larger birds and mammals. The importance of the oak woodlands to wildlife should be described. The Western Rattlesnake is an inhabitant of this wildlife community in rock outcroppings along Lewis Ridge. The rattlesnake's positive and negative aspects, as well as visitor precautions, should be described.

• Native American Themes

Primary Theme
Ancient Lakeshore People: The Southeastern Pomo
A general description of the Pomo's history, origins, neighbors, territory, warfare, language groups, and population can set the stage for other interpretive themes.

Primary Theme
The Koi: Pomo Life of an Island People
This interpretation includes a general description of the organization of Pomo society and village communities such as those that were located on Indian Island, Garner Island, Slater Island, and Lewis Ridge. Types of kinship, tribelet organization, politics, games, and music should be described along with Pomo money, gambing, counting, sense of time, and other aspects of village social life. Types of buildings and other structures should be described, with the tule boat interpreted as a basic means of transportation and gathering food. Trade with other Indian groups should be described.

Primary Theme
Sacred Time and Power: Creating and Maintaining the Pomo World
The Southeastern Pomo aspects of maintaining harmony with the Creator and the universe through religious beliefs, ceremonies, dances, shamans, dreaming, ceremonial dance regalia, buildings, officers, and songs should be interpreted. The creation stories and other legends of Coyote and Thunder and spirits of the fields, woods, water, and sky should be described to give the early Native American perspective on living in harmony with one's world.

Basket making is an important element of Pomo culture.

Primary Theme
Making a Skillful Living: Pomo Material Culture
This theme would describe gathering techniques and the types of plants used by the Southeastern Pomo for food, medicine, and construction materials; hunting and trapping methods, including the weapons, traps, techniques, and tools; the kinds of animals taken and their use for food and materials; fishing and cooking techniques; and the tool technologies, the natural materials and their use in making tools, traps, boats, clothing, housing and other items. The intricate and utilitarian designs of woven and twined baskets and other woven items should be described.

• Archeology Themes

Primary Theme
Unearthing a 10,000-Year-Old Culture: Archeology of Anderson Marsh
The science of archeology, its methods and objectives, should be interpreted to help the visitor understand how it reveals the story of past civilizations that lived on the lands

now within the park. The tools and techniques of the archeologist used in discovering, mapping, dating, and recording archeological sites and artifacts, and the difference and importance of surface collection and excavation data-gathering techniques should be described.

Subtheme
Visiting a 10,000-Year-Old Culture: The Lewis Ridge Site
Areas of archeological surface collection and excavation, rules and tips for visiting and appreciating an archeological site, and the sensitive nature of an archeological site are subjects for interpretation. Differences between sites for special use, habitation, and villages, and how each site is classified, are important. Interpretation should explain how carefully documented information (rather than artifacts) is the real treasure of archeology because information allows us to understand another way of living.

Subtheme
Ancient Evidence: Petroglyphs, Grinding Rocks, Cupules, Rock Rings, and Stone Tools
Selected petroglyphs can be made available for viewing by visitors. The significance of the drawings to the ancient peoples who put them there can be interpreted. The more obvious grinding rocks, cupules, and rock rings at the Lewis Ridge site can be interpreted as a living record of the ancient peoples and their ways. The materials, uses, and manufacturing techniques of stone tools are also part of this topic.

• Euroamerican Themes

Primary Theme
The Grigsbys: Early Ranching and Water Politics
The Grigsbys probably built the oldest of the park's existing barns and the center section of the ranch house. Their travel across the United States, settlement and ranching activities at the marsh, and involvement in local politics should be interpreted. An account of the construction of the Cache Creek Dam, the flooding of the marshlands and other low-lying ranch lands, the dismantling of the dam and the legal suits that followed should be interpreted in relation to the involvement of the Grigsbys and other landowners in those affairs.

Primary Theme
Self-Sufficient Scottish Emigrants: The John Still Anderson Family
A general history of the Anderson family and its settlement on the marshlands should be given, including a description of the buildings they constructed on the ranch. The ranching lifestyle should be interpreted, including the

tools, equipment, and ranching and farming methods used to support the family. The uses of the ranch grains, fruits, and vegetables, and methods of planting, harvesting, and preparing should be included.

Primary Theme
From Horses to Engines: Turn-of-the-Century Tools and Technology
The beginning of the 20th century brought changes to the Anderson Ranch. The significant changes from manual to mechanical labor should be interpreted. The changes from outhouse to indoor plumbing, from windmill to tap water, from kerosene lamps to electric light bulb, from wood cookstove to electric range influenced the appearance and activities of the Anderson home which should be interpreted to the park visitor. The cooking, music, clothing, and other indoor activities should be interpreted to illustrate the routine and special occasions of family life at the turn-of-the-century ranch. The unique architecture and construction of the Anderson ranch house in three phases should be interpreted.

Anderson Ranch House, circa 1887.

Primary Theme
Food and Shelter for Livestock: the Barns of Anderson Ranch
The uses of the court, manger, feed bins, branding corrals, milking troughs, stalls, pig pens, and other outbuildings should be interpreted. The livestock, their care, and uses for work and food should be described.

Archeological Collections

Extensive collections exist from archeological investigations at the park over the last several years. Some Native American artifacts are on display in the Anderson ranch house. Most, however, are in storage at Sonoma State University and the University of California, Davis, the institutions that conducted excavations at the park. Artifacts collected since 1982 are the property of the Department of Parks and Recreation. As a first step in creating a storage/display center at the park, a list of the artifacts belonging to the department should be prepared. The condition of artifacts and requirements for present and future artifact storage need to be determined. Proper methods of recording, accessioning, storage, display, and security need to be developed and applied.

Proposed Interpretation

In order to better interpret the varied resources at Anderson Marsh State Historic Park, the following interpretive facilities are proposed for construction, acquisition, or renovation.

- **Facilities**

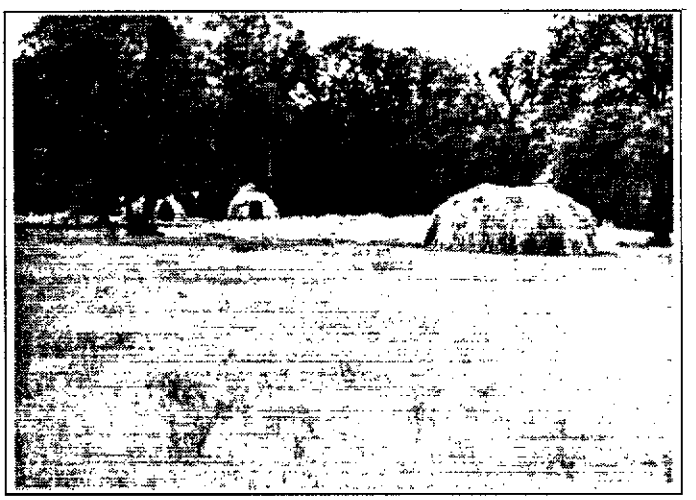
One of the least sensitive areas of the park is the area just south of the ranch complex. This area is suitable for development of a visitor center and parking area. A major function of the center will be to help the visitor decide how best to enjoy the park. It will house exhibits, displays, and maps of the natural and cultural resources of the park, and store and display Native American artifacts recovered by archeologists. Audio-visual presentations on video-cassette monitors and in a small auditorium will be possible. The visitor center will also provide office space, restrooms, an archeological field laboratory, artifact storage/accessioning area, and a publication sales area staffed by trained docents.

From the visitor center, trails will connect with other areas of the south park sector. A short walk to the 1949 south barn at the ranch would lead visitors into the dairy ranching period. The dairy barn will be adapted as an interpretive area for the ranch buildings, displaying ranch implements, historic photographs, panels on ranch life, and turn-of-the-century technology.

Leaving the dairy barn, visitors may pass the corral and north (19th-century) ranch barn. Interpretive panels and displays of early area pioneers in the 19th-century barn will interpret ranch history, conditions, and lifestyles. Restored as a house museum, the house will be used to interpret

domestic technologies and furnishings associated with 1900-1930 ranch life. Restored ranch grounds, including a vegetable garden, vineyard, and fruit orchard, will illustrate the Anderson's subsistence agriculture. Several buildings must be restored to facilitate interpretation: the ranch house, dairy barn, hay barn, and storage buildings.

Visitors can hike a trail system through various park habitats. Most of the major trails have already been established in the park. A few improvements, such as some foot bridges across flood-prone areas, interpretive panels at strategic locations, benches, and shade ramadas, would make the hiker's experience more comfortable without detracting from the natural surroundings. A new interpretive trail in the natural preserve would allow views of the marshlands and wildlife. Improvements to the existing trail along Cache Creek in the North Flat, such as boardwalk construction in some locations, will make the trail accessible by the disabled and provide additional interpretation and fishing access.



Tule huts, constructed by the Summer Field School, will be part of the proposed PomoVillage structures for interpretation of historic Pomo life and culture.

The proposed Pomo Village and Lewis Colony sites are connected by trail to the ranch. Designed and constructed in cooperation with local Native Americans, the village will center on a ceremonial roundhouse, which will include an unobtrusive storage area for ceremonial dance regalia and equipment. Village structures, Native American cultural displays, interpretive panels, and various subsistence technology stations may be included.

The Lewis Ridge site presents an opportunity for visitors to view an ancient Native American archeological village site. Archeological displays and interpretive panels located here will supplement a simulated archeological exposure at the proposed visitor center showing the stratified evidence for the 10,000 years of Indian life at Anderson Marsh.

Potential interpretive methods, themes, and other uses for the ranch buildings, visitor center, and Pomo Village are shown on Figure 2.

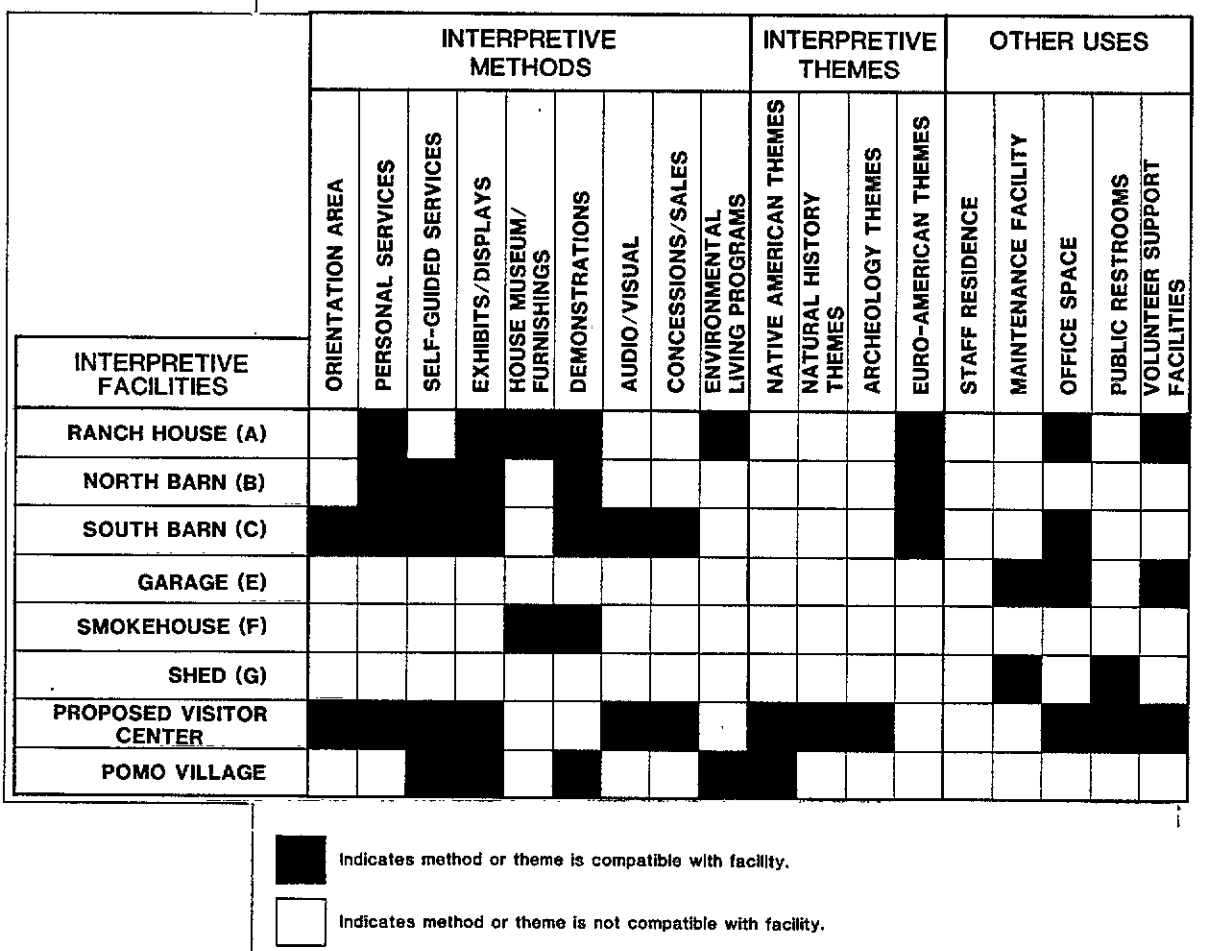


Figure 2 - Interpretive Facilities, Methods, and Themes

• Visitor Activities

Park staff and volunteers can provide additional interpretive activities to enhance the visitor's experience and appreciation of the park. Trained docents can be used in a number of ways: to greet visitors, provide information about the park and local surroundings, make slide presentations and talks, sell publications and other interpretive items at the visitor center, give tours, and present living history programs and environmental living programs at the ranch complex. Docents who gather from the garden, do ranch chores, dress in historic clothing, and use historic tools and technology provide a rich interpretive experience in an authentic setting. Docents and park staff will continue to lead interpretive hikes through the park's habitats. A small

campfire circle, near the visitor center or at the proposed campground, would allow outdoor lectures and special evening programs. Guided boat tours of the marsh and riparian habitats may be added.

At the Pomo Village, Native American volunteers will be able to demonstrate basket, arrowpoint, and boat making, and portray the daily life of an historic Native American village. Native American Cultural Days can bring many different tribes together to share their culture and ceremonial dancing with park visitors in an authentic setting.

At the Lewis Colony site, working archeologists could interpret their methods to visitors. Special programs, such as the Cultural Heritage Council's Archeological Summer Field School, provide in-depth educational experiences to archeology students.

Recommendations

• Research Needs

It is recommended that additional research be performed to provide accurate information for interpretation of the unit's history and features and fill in missing information links:

- Learn more about the post-contact ethnography of the Southeastern Pomo and their lives today.
- Develop an inventory of artifacts taken from the unit to enable planning for their storage, display, and security.
- Gather more information on the ranch's history between 1870 and 1885 to expand the unit history of the transition period from Grigsby occupation to Anderson ownership.
- Develop a list of the park's rare, threatened, and endangered animals and plants.
- Monitor the rapid encroachment of young willow trees in the marsh since grazing was stopped.
- Study the park's surface-scattered artifacts before visitor use increases.
- Determine resource-compatible options for providing disabled access to Lewis Ridge, the marsh, riparian woodlands, and the ranch buildings.

• Future Acquisition

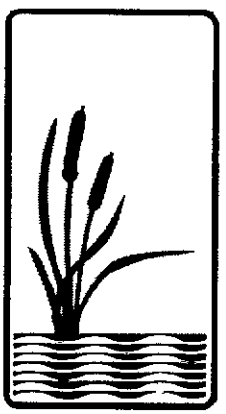
Acquisitions proposed in the Land Use Element will benefit park interpretation by creating buffers, and by providing a possible site for a Native American cultural center.

• Interpretive Priorities

The interpretive priorities (from higher to lower) are to:

1. Stabilize and restore the Anderson ranch house and two adjacent barns.
2. Reconstruct a Pomo Village on the southeast slope of Lewis Ridge outside the Primary Historic Zone.
3. Build a park visitor center and parking area, including safe access off Highway 53.
4. Provide more literature about the park's history and natural resources.
5. Develop a protected archeological site viewing area.
6. Build a marsh overlook, footbridges, raised boardwalks, benches, shade ramadas, and other trail system facilities.
7. Create new interpretive panels for the visitor center, ranch building complex, nature trails, Pomo Village, and Lewis Ridge site.
8. Develop attractive displays, audio-visual programs, and exhibits for the visitor center.

Concessions Element



Concessions Element

A Concessions Element consists of an evaluation of any existing concession activities, the potential for additional visitor services and revenues, and appropriate concession policies and guidelines consistent with the unit's classification.

Under legislation effective September 1982, a Concessions Element is required in the General Plan for future concessions considerations. The Public Resources Code, Section 5080.02 et seq., describes the manner in which concessions can be operated in the State Park System.

Definition

A concession is defined as authority to permit specific uses of state park lands and/or facilities for a specified period of time. The intent is to provide the public with goods, services, or facilities the department cannot provide as conveniently or efficiently, or to permit limited use of state park lands for other purposes, compatible with the public interest and consistent with the Public Resources Code.

Purpose

It is the department's policy to enter into concession contracts for provision of products, facilities, programs, and management and visitor services that will enhance visitor use and enjoyment as well as visitor safety and convenience. Such concessions should not create an added financial burden on the state and, wherever possible, shall either reduce costs or generate revenues that aid in maintaining and expanding the State Park System. In carrying out this policy, the department must adhere to the provisions of the Public Resources Code that forbid commercial exploitation of resources in units of the State Park System and that limit the kinds of improvements and activities that are allowed in certain types of units.

Appropriate Concession Policies and Guidelines

The following are general statements of concession policies for the State Park System:

Policy A: Ensures that concession developments are consistent with the purpose(s) for which the unit

was established and classified, and in conformance with the General Plan for the unit.

Policy B: Ensures that all concessions provide needed and appropriate visitor service at a fair and reasonable price to users; allows entrepreneurs an equitable profit; and ensures the State Park System of an adequate return.

Policy C: Avoids duplication of visitor facilities or services that are adequately provided outside unit boundaries.

Policy D: Allows for a wide variety of purposes and types of concessions.

Policy E: Encourages private investors to fund and develop user facilities on a lease-purchase basis.

Policy F: Solicits nonprofit corporations to develop and operate user facilities, particularly when such facilities are provided in conjunction with restoring and interpreting historical units.

Policy G: Requires evaluation of potential concession services to determine whether such services are appropriate and will expand visitor enjoyment.

Appropriate concession activities for historic units are limited to:

1. Concessions that are interpretive or historic in nature, and that reflect the established primary periods;
2. Special events sponsored by nonprofit associations to produce revenue for planned development, programs, and maintenance of the facility; and
3. Commercial/retail-type concessions that consider:
   a. planning and development guidelines (including compliance with historical and interpretive prime periods),
   b. land use and development plans (including compliance with strict architectural and engineering requirements),
   c. public needs (are the services and goods offered by nearby local business?),
   d. compatibility with state development,
   e. economic feasibility (benefits vs. costs to the state), and
   f. plans showing --
      (1) how proposed development relates to other development and the total environment,
      (2) recreation needs, and
      (3) conformity to state and local codes, laws, regulations, and ordinances.

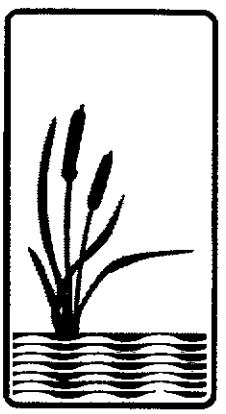
Recommendations for New Concessions

There are no current concession operations at Anderson Marsh State Historic Park. The concession potential in this state historic park is considerably limited by the State Park System management principles established for historic/cultural preservation and interpretation. Consequently, all concession developments, programs, and services must be compatible with the unit classification and the General Plan provisions.

The plan does not recommend any concessions because, at present, there is no recognized need. Many retail services needed by park visitors, such as groceries and camping supplies, are available in the local communities close to the park. Interpretation can be aided by nonprofit interpretive associations.

Specific commercial retail proposals shall be studied on a case-by-case basis, on submission of proposals to the department. It is not possible at this time to predict all the potential concession activities. Feasibility analysis shall be conducted by the department's Operations Division and Office of Economic and Fiscal Affairs, with compliance reviews by the Office of Interpretive Services, and the Development, Acquisition, Planning, and Resource Protection Divisions. Final approval will rest with the director of the Department of Parks and Recreation.

Operations Element



Operations Element

The Operations Element is intended to define broad operational goals for Anderson Marsh State Historic Park and outline objectives in the implementation of the General Plan. This element also identifies existing or potential operations problems and strategies for dealing with them consistent with all elements of the General Plan.

Existing Operations Summary

Anderson Marsh State Historic Park was acquired in October 1983, and currently is operated with staffing needed to maintain essential park services. Only limited operational hours, patrol coverage, and maintenance services can be provided at the unit. The 871-acre park consists of significant cultural and natural features, many of which are accessible to patrol and the public by boat or on foot only. Proposed acquisitions to the park will add areas with significant resources, requiring protection and increasing patrol responsibilities.

Anderson Marsh State Historic Park and Clear Lake State Park comprise the Clear Lake District. The operation of both units is managed by the Clear Lake district superintendent, assisted by the chief ranger and the maintenance supervisor. Administrative services for both units are provided from the district office located at Clear Lake State Park. Maintenance and visitor services at each unit are provided daily by assigned unit staff; special program needs and/or events at either unit may require temporary staff redirection. Volunteers and other state agency personnel may be incorporated in any operations program, but their participation should be focused on the support of interpretive, resource protection, and management programs.

A variety of organizations and individuals assist and support park operations, including the Anderson Marsh Interpretive Association, the Cultural Heritage Council, members of the Native American community, the National Audubon Society and its local chapter (Redbud), the California Conservation Corps, the California Departments of Forestry, Corrections, and Fish and Game, and others. Working with park staff, their support allows a wider array of creative interpretive programs to be offered.

Special Considerations

Lake County is an area projected to see tremendous growth in the forseeable future. By the year 2020 Lake County's population will grow from 49,000 to 121,300, with most of the growth close to Clear Lake. To assure protection of the resources of Anderson Marsh State Historic Park, park staff must remain vigilant to the potential threats created by growth and development, and offer advice and information to Lake County and City of Clearlake officials and all planning agencies.

• Jurisdictions

Part of the park lies north of Cache Creek within the City of Clearlake; the rest of the park lies to the south of the creek within the unincorporated township of Lower Lake in Lake County. Planning of activities, projects, and development should be carefully coordinated with the appropriate agency of each jurisdiction to assure that its concerns are addressed to avoid potential misunderstandings and conflicts.

• National Audubon Society

The National Audubon Society owns and maintains the 220-acre McVicar Wildlife Sanctuary contiguous to the park's western boundary. Special overseer responsibilities are held by the local Redbud Audubon Society. The goal of the Audubon Society parallels that of the Department of Parks and Recreation in its quest to maintain and protect the natural features of the marsh.

The department's common boundary and concern for the marsh has created a special relationship between the park and the Audubon Society which should be maintained. To the extent practical, the planning of park activities, projects, and development that may affect Anderson Marsh Natural Preserve should be discussed with Audubon representatives to insure that their concerns are addressed.

• Cultural Heritage Council

The Cultural Heritage Council (CHC) is a nonprofit organization whose purpose is to promote cultural awareness and to assist with the protection and preservation of sensitive cultural and natural resources within Lake County. The organization and its members perform a valuable service at Anderson Marsh State Historic Park, volunteering great amounts of time to conduct archeological surveys, catalogue and describe collected artifacts, and participate in interpretive programs and projects. The CHC has also organized the summer Archeological and Cultural Field Schools, which aid in the identification and protection of archeological resources, teach cultural awareness, and further the public understanding of the features of Anderson Marsh State Historic Park and its past.

To the extent practical, the planning of park activities, projects, and development that may affect or relate to the archeological features and their interpretation should be discussed with CHC representatives to assure coordination of effort and avoid misunderstandings.

• The Native American Community

Anderson Marsh State Historic Park is an ancestral home of the Pomo people. Its classification as a state historic park commemorates the cultural history of the Pomo people that is still preserved in the unit's archeological sites. The Native American people now living in Lake County and elsewhere represent a special and important link to the historic and cultural past of the park.

The park may serve to assist the Native American community in the understanding of its cultural past, and as a location to continue cultural traditions and promote understanding by the general public. Members of the Elem Colony have sponsored public cultural programs at Anderson Marsh State Historic Park, and they have also participated in interpretive park and Cultural Heritage Council-sponsored programs. They are working with the department to develop a replica Pomo Village which will be open to the public for continuation of Native American cultural traditions. The involvement of Native Americans in activities at the park has enriched park programs by personalizing and bringing to life cultural traditions and practices.

All of these factors suggest that a special relationship exists between the park and the Native American community. Park administrative and field staff shall work to maintain and encourage the relationship by actions such as assisting the Native American community in developing a design for the proposed village, if it is clear that it can be constructed, maintained, and operated to the satisfaction of all; and identifying locations, times, and methods of collection for individuals who are interested in gathering native plant materials to support cultural traditions and practices, if such collections can be accomplished according to departmental policy and without compromising the perpetuation of the park's cultural and natural resource values. To the extent practical, the planning of any park activities, projects, and development that may affect archeological features or Native American cultural values or their interpretation should be discussed with Elem Colony or other interested representatives. Such communication may help to ensure sensitivity and accuracy and avoid misunderstandings.

• Volunteers

Volunteers assist the park operation in a wide variety of ways. They help further archeological understanding through

research and field studies, participate in general maintenance and housekeeping, and assist in developing plans that will shape aspects of all future park programs. Additionally, nearly every day volunteers and docents offer interpretive tours and programs which assist the public to better understand the features and values of the park.

The Anderson Marsh Interpretive Association (AMIA) is a nonprofit park cooperative association whose purpose is to assist the public through interpretive methods to understand the features and values of Anderson Marsh State Historic Park. To achieve their purpose, AMIA volunteers and docents offer innovative interpretation to the public through a variety of programs, assisting in the research of the unit's cultural and natural history, giving tours, and creating special events. Their service is invaluable to the public.

The involvement and support of the Anderson Marsh Interpretive Association, the Cultural Heritage Council, and other volunteers help the park meet several objectives by increasing public awareness of park values and features and developing ways to make those features and resources more accessible to the public. This public service is to be fully supported by the district. To encourage volunteer effort, park and district staff shall work closely with individuals and their organizations to assist with training and to provide the direction and supervision necessary to ensure efficient and effective interpretive programs and public service.

Operational Goals and Implementation

- **Goals**

Anderson Marsh State Historic Park is noted for the richness of its wetland, woodland, wildlife, archeological sites, and other historic features. It is the declared purpose of the department to provide protections as appropriate and necessary to maintain and perpetuate their value. As long as special programs and events can continue to be conducted without compromise to the perpetuation of park features, they should be encouraged by the district.

Public recreational use at the unit has included fishing, hiking, nature study, boating, picnicking, and other such compatible day-use activities. To the extent that such activities may be permitted without compromise to the perpetuation of the park's cultural and natural resource values, they shall be encouraged. Park staff shall seek to identify improvements or ways to reasonably facilitate

compatible general public recreational use when and where appropriate at the park. Recreational activities sponsored by individuals, groups, or organizations may be considered by special event permit, and may be approved if the activities are not in conflict with the purpose of the park, state park rules, regulations, policies, or orders.

The sensitive cultural resource areas at the park receive special care and consideration when any activity is conducted within them. Proposed activities and development within these areas will be described in writing, reviewed by the district superintendent, and forwarded for reviews if required by the California Environmental Quality Act.

• Maintenance

Facility maintenance and housekeeping shall be conducted in a manner appropriate to meet standards for public health and safety, to maintain public and departmental expectations for cleanliness and appearances, to meet security requirements, and to extend the lifespan of facilities, tools, and equipment. Facilities and other structures identified as historically significant, or which lend to the historic sense of time and place, will be repaired and maintained utilizing aged or similar materials to the extent practical. Significant repairs or proposed alterations to such facilities are to be described in writing, reviewed by the distict superintendent, and forwarded for reviews if required by the California Environmental Quality Act or other provisions of law.

The park does not now have buildings suitable for equipment and artifact storage, or to serve as a shop area. To accommodate these needs the district has leased space outside the unit. Space and storage needs will continue to grow as park activities, attendance, staff, and artifact collections increase. Additional storage facilities will need to be found or created through adaptive use of existing structures, lease, acquisiton, or construction of additional structures. Ideally, all maintenance and storage facilities can be accommodated within the unit at locations identified within the Land Use and Facilities Elements.

• Law Enforcement

As described earlier, Anderson Marsh State Historic Park is located partly in the City of Clearlake and partly within the unincorporated area of Lower Lake. Park staff receive law enforcement assistance from the City of Clearlake Police Department or the county sheriff according to jurisdiction.

The unit does not have extensive enforcement problems. However, vandalism, poaching, trash dumping, theft, and improper vehicle use are the most common current areas of concern. A low-profile law enforcement presence, therefore, is

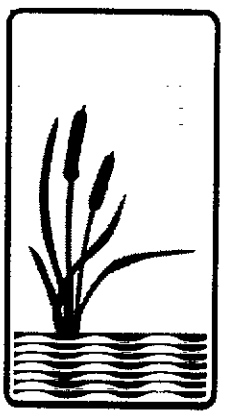
currently an appropriate level of response to enforcement problems. Should use patterns change decidedly, the level of response may need to be reviewed by the district superintendent and modified. Meanwhile, regular and careful patrols are to be performed both to establish the park's law enforcement presence and to identify problem patterns. Random after-hours patrols may be scheduled as necessary to reduce vandalism and other unauthorized after-hours activities.

- **Staffing**

As described in the Existing Operations Summary, Anderson Marsh State Historic Park is operated with a small staff, which limits operation hours, causes discontinuous patrol coverage, and restricts significantly the maintenance and housekeeping services that can be provided at the park. Volunteers assist the park staff to cover some of the shortfalls, but it is inappropriate for certain essential park services to be performed by volunteers (enforcement patrols and services, investigations, and services requiring specialized maintenance skills or certifications, for example). Volunteers are trained by unit staff who must also consistently and continuously oversee programs to assure that only appropriate activities are undertaken and that park policies and safe practices are understood and followed. To maintain a healthy, productive volunteer program will require a greater staff presence and participation than existing staffing levels will permit at this growing unit.

Implementation of the General Plan with facilities development, resource management and protection programs, and interpretive programs and events will correspondingly result in greater visitation and staff load. To meet the needs at the maturing unit, further staff increases to the park may be anticipated. The district superintendent shall recommend to the department appropriate increases in staffing, equipment, and operational expenses as may be required to fulfill operational responsibilities at Anderson Marsh State Historic Park.

Land Use Element



Land Use Element

The Department of Parks and Recreation carries the dual mission of protecting and preserving the resources of the State Park System and of providing recreation opportunities and facilities for the public through the use of the State Park System. The establishment and classification of Anderson Marsh as a state historic park recognizes the significant cultural and natural resources of the site. These resources present diverse and quality recreational, interpretive, and educational opportunities to supplement the public's enjoyment of the unit. The Land Use Element determines the "best use" of the land at Anderson Marsh State Historic Park for providing these opportunities consistent with the programs and policies identified in the Resource Element for resource protection and perpetuation.

A land use plan defines the pattern for the fabric of human activity in a given area. It establishes the character of a place by determining what happens, where it happens, and to what degree it happens. It defines routes of travel and use areas, as well as nonuse areas free from human change. It controls use and development and arranges park activities and facilities so visitors may have the opportunity to enjoy the recreational, educational, and spiritual experiences the park has to offer.

During the course of its development, the Land Use Plan takes into consideration the activities and facility needs identified by the various General Plan elements. For example, the Resource Element proposes the need for an archeological artifact storage and curatorial facility; natural preserve lands are set aside as open space, as are most parts of the primary historic zone identified in the Resource Element; the Interpretive Element speaks to facilities needed to implement and present interpretive themes and programs, while the Operations Element identifies the need to develop certain administrative and maintenance facilities for adequately operating the park for public use; the Facilities Element recommends recreation facilities and activities based on existing needs and projected demands that were identified through the public involvement process and from regional and statewide recreation planning information. How and where can these activities and facilities be accommodated? How can land uses be designated so as to protect resource values? The Land Use Element considers desirable and necessary land uses - undeveloped (natural or open space) and developed (interpretive, operations, recreation, and concession facilities) - and determines what uses are appropriate and where. The Facilities Element then more specifically locates these facilities and activities within the appropriate land use zone or area.

Land Use Goals

In setting land uses for the park, the following three general goals are important considerations which govern the quality of the visitor experience. ***Quality park experiences*** is the first general goal. Within the objectives of the plan, "quality of park experience" is the most important consideration for park visitors. For individual visitors, enjoyment of their own chosen interests will determine their satisfaction with the unit as a whole. For this reason, selection, location, density, and intensity of recreation activities and visitor-serving facilities are critical.

Opportunities should be made available for people to enjoy individual outdoor experiences in the types of environment best suited to individual needs and values...or, "the right thing in the right place," without the negative influences of undesirable activities.

Land use concepts directed toward attainment of quality experiences and protection of individual values include:

1. Separation of conflicting uses.

2. Enforcement of rules and regulations designed to maintain a high-quality experience for visitors.

3. Constant monitoring of activities and uses, and adjustments to land use patterns, as may be necessary to gain maximum enjoyment of the resources for the greatest number of people, within the stated resource preservation objectives.

Diversified park experiences is the second major goal. Opportunities for recreation and park experiences need to be diverse, because people's values and needs vary greatly. A pleasant experience for one person may be something entirely different for another. Anderson Marsh State Historic Park should provide for the different needs and interests of people, to allow people to act freely within it as long as the uses of the land remain compatible with each other, the resources, the environment, and the purposes of the park and the State Park System. Within these constraints it may be obvious that the park cannot be all things to all people.

The two preceding goals are psychological ends to a certain extent, which cannot be attained by strict preservation of the park's pre-existing natural state. The third goal, ***ecological continuity***, is set to guide appropriate land use decisions when altering the natural state, and involves concern with ecology of the site. Ecological systems are dynamic, not static. Ecological continuity means finding a new balance in which human activity is a part of the whole, in which natural ecosystems will continue to renew themselves. This does not mean that some very sensitive ecosystems, or species, should or need to be disrupted by

human activity. Some areas, and in certain seasons, must remain sanctuaries lest disruptions result in a loss of natural diversity.

Land Use Limitations

Providing for human activity within the park in a manner that allows for the perpetuation of resource values and the continuity of ecological systems involves setting limitations on how humans use the land: how many people can use an area (carrying capacity) and for what purpose (allowable use intensity). These two concepts are vital to the preparation of the final Land Use Plan.

Park planners often use the concept of "carrying capacity," borrowed from range management, to refer to the number of people, or the intensity of activities (allowable use intensity), that an area of land can support without losing its ability to renew itself. Early in the 20th century, land managers, particularly those in the U.S. Forest Service and the Bureau of Land Management, recognized that lands and their resources have inherent limitations on what those resources can withstand, in the way of grazing and other land uses, before unacceptable resource deterioration takes place. From this realization sprang the term "carrying capacity," which originally indicated the number of cows or sheep an acre of forage could support. Managers and planners of park lands have come to realize that park lands and their associated resources also have inherent limitations with regard to the type and amount of public use they can endure without causing irreparable damage to resources.

How many people and what uses can be allowed at Anderson Marsh State Historic Park without compromising the integrity of the resources and the quality of the visitor's experience? This was one of the most complex questions asked in the preparation of the General Plan. Essentially, the decision about carrying capacity, or number of visitors, is made by park planners based on professional experience, an analysis of existing activities, user characteristics, regional recreation profile, and the determination of initial park goals, management objectives, and allowable use intensity.

• Allowable Use Intensity

Allowable use intensity, which describes the intensity of activities, measures the capability of the natural and cultural resources of a site to withstand human use for a desired quality of recreation without suffering unacceptable and/or irreparable damage. This evaluation serves as a general guide, indicating areas in which resource sensitivities and

constraints will affect development planning. Three basic and interdependent components determine allowable use intensity:

1. Management Objectives: What is the purpose of the unit as identified in its classification? What specific policies for its management are contained in the Resource Element?

2. Visitor Perceptions and Attitudes: This is sometimes referred to as the "social carrying capacity." It involves, among other things, what recreationists perceive as an acceptable recreational environment; what degree of isolation or crowding is acceptable; what amount of site deterioration is acceptable; and other perceptions and attitudes pertaining to visitors' quality of recreational experience gathered from public input during the general planning process and through recreation planning research. Although difficult to quantify, this component is extremely important.

3. Impact on Resources: What will be the impact of visitor and operational activities on the scenic, natural, and cultural resources? What is the acceptable level of damage to the resources?

The first of the components, management objectives, is set forth in a general way by the classification of the unit as a state historic park and by the "declaration of purpose," both of which set some controls on land use within the unit. The allowable use intensity for a specific unit classified as a state historic park will be lower than if that unit were classified as a state recreation area, for example, because its purpose and management objectives are different.

Visitor use will impact the resources no matter what the classification of a unit, but the level of protection of resources is lower in a state recreation area, and the degree of manipulation of resources to achieve recreational objectives is higher. This means that development within an area of high ecological sensitivity may be permitted in a state recreation area, but to a lesser degree or not at all, in a state historic park. This is especially true of a unit such as Anderson Marsh State Historic Park, in which 540 acres are subclassified as "natural preserve."

Perhaps the most important component in determining allowable use intensity involves an analysis of cultural and natural resources and the durability of ecosystems and their resistance to disturbing influences (ecological sensitivity).

Environmental considerations upon which ecological sensitivity is based include: soils, their erodibility and compaction potential; geologic factors, such as geomorphic stability and relief;

hydrologic considerations, including potential for pollution of surface waters, or for depleting surface and ground water through water use; vegetation characteristics, such as durability, fragility, and regeneration rates; occurrence of paleontological strata; 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, and examples of ecosystems of regional or statewide significance (marshes, riparian areas, and vernal pools).

The most important limiting constraints and resource sensitivities at Anderson Marsh State Historic Park are shown on Maps 4,5,6, and 7 of the Resource Element.

All these ecological limitations on land use, plus esthetic values and visitor perception factors, are used in determining the allowable use intensity for specific areas of the park. Allowable use intensity is calculated based on values assigned to their significance, sensitivity and/or hazard. Some judgments are necessarily subjective and will remain so until sufficient ecological monitoring and baselines are established. However, judgments are made by ecologists and park planners whose wide experience lends substantial weight to these determinations.

Decisions setting the level of use, made during the planning stages, cannot be considered irrevocable. Monitoring of resources after a developed site is subject to public use may indicate that unacceptable damage is occurring; therefore, an adjustment in allowable use intensity may be necessary. However, other site management techniques, such as installation of barriers, paths, artificial surfaces, and application of cultural and silvicultural measures, may suffice. Also, visitor management techniques including party size limitation, use of reservations, and interpretive signs, talks, and other devices should be considered along with a possible change in use intensity.

Departmental experience and observations of recreational impact on sites, plus available research results, indicate that ecological sensitivity is correlated to a great extent with certain types and intensities of use. Ecological sensitivity and its approximate correlation with types and intensities of recreational uses are as follows:

Very High Ecological Sensitivity Areas
Indirect or Very Low Intensity Use
Sightseeing off-site
Photography off-site
Interpretation off-site

High Ecological Sensitivity Areas - Light Intensity Uses
In addition to the above listed uses:
Hiking - individuals
Nature study
Birdwatching
Scenic observation
Picnicking - 1 site or less per acre
Fishing - 8 to 10 persons per mile of stream or lake shore
Photography/ Painting
Swimming - informal
Quiet water boating - canoeing, floating, kayaking
Guided tours

Moderate Ecological Sensitivity Areas - Moderate Intensity Uses
In addition to the above listed uses:
Camping - 2 sites per acre
Picnicking - 2 sites per acre
Group camping - 100 people per 40 acres
Sailing, with launching facilities
Bicycling
Hiking, groups

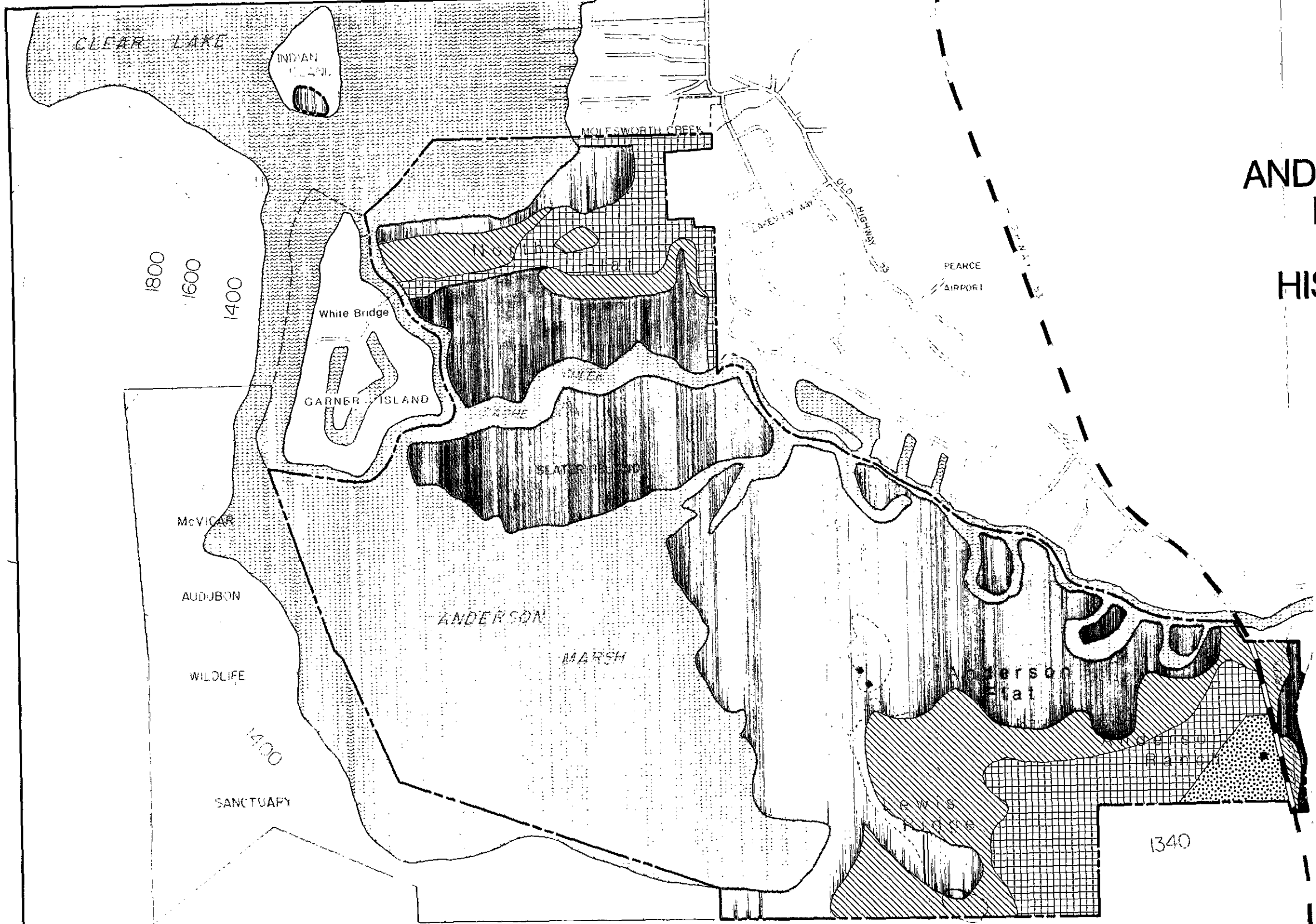
Low Ecological Sensitivity Areas - High Intensity Uses
In addition to the above listed uses:
Camping - 3 sites or more per acre
Picnicking - 3 sites or more per acre
Group camping - 100-200 people per 40 acres
Campfire programs

The allowable use intensities for lands in Anderson Marsh State Historic Park are shown on the Allowable Use Intensity Map. Decisions by the department to provide such types and intensities of use, in effect, constitute the management objectives for the area. These objectives must, in turn, be guided by the ecological and cultural sensitivities of the areas.

• Land Carrying Capacity

Based on allowable use intensities, the land carrying capacity for the park is set by examining the amount of existing visitor use, the capacity of existing facilities, and the desirable capacity of proposed new or improved facilities to provide additional use.

The *location* of access, parking, and facilities may be used to control the *density and distribution of users.* However, the *number* of parking spaces provided for vehicles is the major factor that determines *carrying capacity and density of use.* This is because most visitors gain access to the park by motor vehicle. Less than 1 percent now come by other means (foot, bicycle, horse, or boat), with a projected increase to less than 5 percent by the year 2000. Since the carrying capacity must remain within the limits of allowable use intensity, it may need to be adjusted if allowable use intensities are adjusted. Also, cumulative and



ANDERSON MARSH STATE HISTORIC PARK

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N

ALLOWABLE USE INTENSITIES

I Very Low

Nature observation and study, including bird watching and photography; Native American study. Access by foot and by vessel traveling at speeds which create no wake. Activities restricted by season as necessary to prevent adverse impacts to nesting and spawning habitats and wildlife species. Access to sensitive archeological sites limited to prevent disturbances.

II Low

Nature observation and study, including bird watching and photography; Native American study; fishing and swimming access by trail, picnicking. Access by foot with care to prevent disruptions to sensitive habitats, wildlife species and archeological sites. Buffer zones to sensitive areas.

III Moderate

Formal natural and Native American studies available to groups, including low intensity facility development, low intensity overnight facilities, picnicking; fishing and swimming access. Potential for low-to-moderate vehicle access corridors and parking facilities. Potential for reconstructed Native American village.

IV High

Potential for moderate-to-high concentrations of people, moderate-to-high intensity picnicking and camping, low intensity building development, and moderate road and parking development to accommodate vehicles.

NOTES:

Unless otherwise indicated, all parts of Anderson Marsh and Cache Creek within the park boundaries are very low intensity use, Category I.

Activities and facilities permitted in lower numerical categories are also appropriate.

These examples serve as a general guide to appropriate uses. Detailed field investigations shall be made prior to approval of any site-specific facility development.

All proposals regarding land acquisition are for long-range planning purposes and do not represent a commitment to acquire.

ALLOWABLE USE INTENSITY

DESIGNED
DRAWN 5/87
CHECKED

REVISIONS
DATE

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

ANDERSON MARSH STATE HISTORIC PARK
ALLOWABLE USE INTENSITY
GENERAL PLAN - LAND USE ELEMENT

DRAWING No. 23066

Map 8

periodic effects on sensitive resources, by people using lands in the vicinity of parking areas, other facilities, or natural attractions, may require limitations on public use in some areas during some seasons.

Existing facilities and activities at Anderson Marsh provided recreation opportunities for about 11,000 visitors in 1985-86. Use has continued to double each year since the park was acquired. The term "instantaneous capacity" is used to indicate the maximum capacity of all facilities at the moment of peak use. It may be stated in terms of vehicles or people; estimates are that each vehicle accounts for 3.2 visitors. Taking into consideration turnover rates (each parking space is used an average of 2.4 times daily), seasonal use patterns (which peak between April and November at Anderson Marsh), and the number of full capacity days, the average daily and annual visitor attendance can be projected from the instantaneous capacity.

The present instantaneous capacity at the park is 380 vehicles, or 1,216 visitors. The proposed vehicle capacity is 500, or 1,600 visitors. Existing and proposed vehicle capacities represent the existing and proposed parking spaces to be available at the unit (see "Summary of Existing and Proposed Facilities" in the Facilities Element). Totals of existing and proposed parking spaces include all three of the following:

1. Parking in paved parking spaces.
2. Parking in established unpaved areas on a regular basis.
3. Overflow parking on an infrequent basis. During special events, overflow parking is permitted in a designated area, to the extent that the health and safety of visitors and unit resource values are not jeopardized.

Existing Land Use Conditions & Assumptions

The following land use considerations are essential in outlining the process by which land use decisions were made. The logic of planning decisions can be traced from initial assumptions and planning issues through the alternatives that were discussed and debated, to the chosen objectives and recommendations for actual use and development.

• Recreation Values

- The park, its marsh, riparian areas, oak-studded ridge, and open flat are highly scenic.
- The undeveloped and quiet character of most areas of the park is a significant value, particularly when found next to an urban area.

- The marsh and creek have a personal, intimate scale, favorable to low intensity, water-oriented recreation.
- The park is at the southeastern end of popular Clear Lake, which provides numerous recreational facilities.
- The park's western boundary is contiguous to the McVicar Audubon Wildlife Sanctuary, which shares similar management goals with Anderson Marsh SHP.
- The park has become increasingly popular since its recent acquisition, with visitor attendance doubling each year as the programs, events, and facilities offered at the park have increased.
- The abundance of cultural and natural resources at the park make it ideal for many types of recreation, including birdwatching, nature observation, fishing, hiking, archeology, and interpretation of Native American culture and ranching history.
- Scenic values of the park's viewshed are threatened by potentially encroaching residential and commercial/ industrial development.

• Recreation Use

- Prior to state acquisition of the park, uncontrolled camping and off-road vehicle use damaged areas of the North Flat.
- There are no existing formal recreation facilities at the park.
- Informal recreation use was estimated at 11,000 visitor days in 1985-86.
- Popular recreation activities are birdwatching, hiking/walking, nature observation/study, swimming, ranch house tours, special events, and archeologic field study. Boating, fishing, and picnicking also occur.
- Under special use permit, carp bow-hunting competitions have been held at the park.
- Most activity occurs at the ranch center, on Cache Creek at White Bridge, and on Lewis Ridge at the Pomo Village and Lewis Colony sites.
- Boating speeds are limited to 5 mph, which effectively eliminates water-skiing.
- Existing recreation use at the park is limited by the lack of trails, developed facilities, and seasonal inundation of many areas.
- Intensive recreation and water-oriented facilities and activities are provided elsewhere outside the park along the Clear Lake shoreline.

• Physical Factors

- The primary recreation season (May through September) coincides with hot summer months, when temperatures in the 90s and 100s are common.
- In such a hot climate, people are drawn to recreation uses at the water's edge or to areas where tree cover can provide extensive shade.

- The land surrounding the marsh and creek are primarily wetland or riparian areas with sensitive resource values and expansive soils, and subject to periodic inundation.
- Vehicular access to, or recreation development near, the water would be difficult, expensive, and environmentally damaging.
- Areas of the park with extensive tree canopy are generally within the primary historic zone or natural preserve, where some recreation facilities are prohibited.
- There is only one area in the park suitable for high-intensity recreation use (Allowable Use Intensity IV). This area, generally the southeast corner of the park, is not near the water's edge nor shaded by trees (except at the ranch area).
- Considering the physical limitation of the park resources, the capacity of the land for intensive recreation use and development of structures is relatively low.
- For these reasons, certain recreation development will not generally be feasible (for example, swimming beaches, intensive boat launch facilities, shoreline camping, nonexpendable facilities).
- Considering the sensitivity and physical limitations of the park's important resources, its unit management objectives and the proximity to the diverse opportunities available elsewhere around the Clear Lake shoreline, some recreation activities should not be duplicated at the park.
- Because of limited public ownership, private residential and light industrial/commercial development is encroaching on the units's viewshed. The view from the park to the north and east is dominated by private homes in several areas, and development may soon encroach on the view to the south.
- As development around the unit continues, opportunities for land acquisition are being lost.

• Transportation and Circulation

- Origin of Anderson Marsh Visitors
  - -- Most visitors are local residents or come from the greater San Francisco Bay area.
  - -- Anderson Marsh is within a two-hour travel time from the Sacramento-Central Valley metropolitan area, and within a two to three-hour travel time from the San Francisco Bay area.
- Means of Travel to Anderson Marsh SHP
  - -- Nearly all visitors arrive by motor vehicle. It is estimated that less than 1 percent of visitors arrive either by boat, on foot, or by plane at nearby Pearce Airport.
  - -- Public transportation is limited in the Clearlake/

Lower Lake area. Kelseyville is a flag-stop for a commercial bus line. Currently there is no regional or local public transit system.
  - -- Currently there are no regional or local trails to the park.
- Routes of Vehicle Access to Anderson Marsh SHP
  - -- Major auto routes are State Highway 29 to Highway 53 from the south (Highway 53 crosses park lands near the eastern boundary) and Highway 20, to Highway 53 from the north.
  - -- Recreation access to the north park sector is from a residential street (Lakeview Way) via Old Highway 53.
  - -- Funding is available to acquire new access to the north park sector directly from Old Highway 53.
  - -- Highway 53 to the east of the ranch area will be widened from two to four lanes, requiring the use of adjacent park lands. The major effects of the realignment and widening on the park may be: filling or damming riparian areas along Seigler Creek; increased highway noise levels at the ranch area; increased negative visual impact of the highway; prohibiting pedestrian/wildlife circulation along Cache Creek at the highway bridge; and safer access to the ranch.
  - -- New park development will generate increased traffic on these access routes.
- Means of Travel at Anderson Marsh SHP
  - -- Owing to physical constraints and the existence and extent of sensitive cultural and natural resources, many areas of the park are inaccessible except by boat or foot.
  - -- There are about four miles of existing trails within the park.
  - -- Walking and hiking are popular activities at the park, and many people have indicated that boating access within the park is important to them.
  - -- There is no opportunity to provide a vehicular connection between the north and south park sectors which are separated by the natural preserve, including Slater Island and the main channel of Cache Creek. Structures are inappropriate in natural preserves and are not allowed.
  - -- Any planning for trails within the natural preserve must consider established State Park and Recreation Commission policies and provisions of the Public Resource Code pertinent to natural preserves. Trails should be made compatible with the scenic and natural resources and be as inconspicuous in the landscape as possible.
  - -- Currently there are no state-provided transportation services such as trams or ferries. At some special events in the past, wagon or van rides have been provided for visitors between the ranch and Lewis Ridge.
  - -- Off-highway vehicle use is not permitted at the park.

Planning Issues and Alternatives

An analysis of existing conditions and results of a user survey distributed at the park allowed us to identify many problems and recreation planning issues at Anderson Marsh State Historic Park. The diverse concerns expressed in letters, interviews, user surveys, and the first public workshop resulted in the development of a series of recreation alternatives. The proposals encompassed the wide range of ideas and park philosophies that were heard earlier.

Alternative A called for minimal development and maintenance of the undeveloped character of the land, with emphasis on interpretation. Alternative C called for a higher level of recreation development over a limited area. Alternative B struck a middle ground between A and C, calling for some additional recreation and interpretive facilities and for maintenance of the land's natural character. (Alternative plans A and C are shown on pages 189 and 191, respectively).

The alternatives were presented and discussed at our second public workshop. Participants were divided into small groups and were instructed to evaluate the three alternative plans. They were asked to prepare a single plan (upon which the group could agree) that resolved the issues concerning them. This group plan was later presented to the entire workshop audience. The many group plans served as important tools in helping the planning team assess the major issues, the areas of consensus, and the various trade-offs that would have to be reconciled in the development of a final plan.

Individuals who were unable to attend were asked to send their comments by mail. All comments were reviewed carefully, with special attention to the modified plans prepared and negotiated by work groups at the public workshop, in order to develop a single plan that the planning team considered to be the best one for providing for public use of the park while protecting the resources.

Both the group plans developed at the second workshop and the single plan were summarized in the next newsletter. The single plan was presented at the third public meeting for public review and comment. Some changes were incorporated into the plan as a result.

Public evaluation of the alternatives identified the following significant issues and areas of general agreement.

• Significant Public Issues

-- Suggestions for potential visitor uses of Garner Island varied from designating the area as part of the natural preserve, to camping, to development of a Native American cultural center.
-- Removal of the barns on Lewis Ridge to protect the

integrity of the archeological resources was favored by some people, while others preferred retaining them for adaptive use in interpretation or by the archeological field school.

- Many people were concerned about the potentially negative impact of any development in the North Flat on the area's resource values, while others advocated campground development as a means to provide better visitor control and resource protection.
- Some workshop participants advocated control and screening of land uses and development adjacent to the park.
- All workshop participants were concerned about the effect of Highway 53 widening on the park. This is an issue, however, over which the department has limited control.
- Concern about the Cache Creek flood control project and potential negative affects on the park's resources was noted.

• Areas of General Agreement

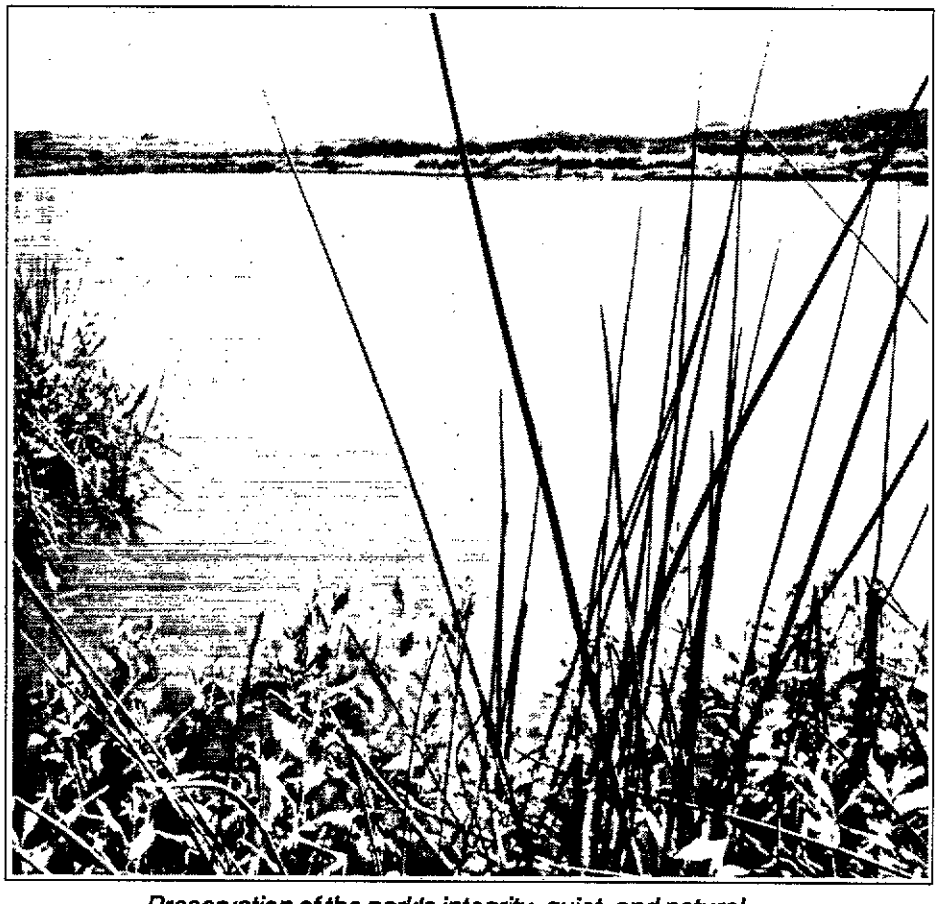
- The Anderson Marsh area is environmentally sensitive and should not be damaged by overdevelopment.
- The natural and quiet character of the landscape is an important recreation value.
- Recreation uses and facilities that are not damaging to existing environmental values are appropriate, such as hiking trails, interpretive facilities, and marsh overlook.
- Restoration of the ranch house and barns, to bring them up to standard for interpretation and public use justified by the historic importance, is a top priority.
- Interpretation of the park's cultural resources and care of its archeological artifacts would be enhanced by the development of a visitor center with facilities for archeological curation and storage.
- Construction of a Pomo Village near the primary historic zone at the east end of Lewis Ridge would be an important element in interpreting Native American culture and history.
- Certain uses and activities (picnicking, boat launching) can be appropriate with adequate location, design, and control.
- The existing trail system needs improvement to provide access to more areas of the park and to be accessible for use by the disabled and elderly.
- Adequate staffing increases will be needed to accompany new development in order to ensure public safety and park cleanliness and provide increased hours of operation, proper management, and interpretation of resources.
- Widening of Highway 53 should be accompanied by attempts to mitigate the negative impacts of traffic appearance and noise on the historic ranch scene.
- Safety of the park access at the ranch area should be improved.
- Park traffic through residential areas is undesirable. Facility development in the north park sector should be

accompanied by a new park access road directly off Old Highway 53.

- Acquisition of Garner Island is important to preserve significant archeological sites, natural habitat values, and scenic resources of the marsh, and to control private access through the park.

Land Use Objectives

Land use objectives were set following the first two public meetings in which public issues and concerns were identified and alternative plans discussed. Based upon existing conditions and assumptions and resource protection guidelines, the land use objectives outline measurable ways of reaching the land use goals previously identified - quality and diversified park experiences and ecological continuity.



Preservation of the park's integrity, quiet, and natural beauty is one of the plan's primary land use objectives.

1. Preserve the integrity, quiet, and natural beauty of the entire park.
2. Interpret to the public the site's significant cultural and natural resources.
3. Provide opportunities for diverse recreational uses of low to moderate intensity that can be made compatible with the integrity, quiet, and resources of the park.
4. Minimize environmental damage caused by recreation use and development.
5. Provide facilities and staff consistent with adequate operation of the park for protection of the resources, public health, and safety.
6. Encourage "non-automobile"circulation in the park.
7. Avoid excessive traffic on residential streets.
8. Support programs that provide accessibility to the area by addressing the transportation needs of urban residents, the elderly, disabled, and low income.
9. Provide overnight camping to accommodate increasing demand.
10. Monitor recreation use, periodically reassess the ability of the resources to absorb the use they are receiving, and adjust recreation use as necessary to adequately protect resource values.

Interpretation of the park's significant resources is also a major land use objective.

Use of the park for recreation activities such as hiking and low-speed boating will continue under the land use objectives of the plan.

Land Use Recommendations

- General Land Use

To Preserve the Quiet, Natural Character, and Beauty of the Anderson Marsh Landscape:

- Maximize open space:
  - -- Allow no new development within the primary historic zones or the natural preserve (except for trail access only).
  - -- Concentrate recreation development. The majority of development will be in three use areas: Anderson Ranch, Lewis Ridge, and the North Flat.

- -- Locate new development adjacent to existing development or along margins of scenic or open areas where existing vegetation, landforms, or screening will minimize visual impacts.
- Control noise:
  - -- Enforce speed limits on the water.
  - -- Isolate or buffer noisy recreation activities from other park users.
  - -- Negotiate with Caltrans to provide a physical sound barrier between the ranch area and Highway 53 as mitigation for highway widening.
  - -- Buffer sensitive resources from noisy recreation activities.

To Provide Assistance and Direction to the U.S. Army Corps of Engineers in Planning of the Cache Creek Flood Control Project:

- Require mitigation measures for destruction of cultural and natural resources. (See section on The Unresolved.)

• Facility Development

To Interpret the Park's Cultural and Natural Resources:

- Locate a visitor center south of the Anderson Ranch complex on existing park land next to Highway 53 for visitor orientation and cultural and natural resource interpretation.
- Restore ranch house, barns, and corrals and adapt other ranch buildings to serve visitors and interpret Euroamerican themes.
- Provide a wetlands interpretive trail and develop disabled access along the existing Cache Creek trail in the North Flat.
- Provide interpretive signs on existing and proposed trails.
- Reconstruct a Pomo Village near Lewis Ridge for interpretation and Native American cultural events.

To Emphasize Low-Key Recreation Use:

- Continue day-use at low to moderate intensity.
- Provide low-density camping facilities to accommodate increased demand.
- Enhance existing facilities and use areas to accommodate increasing use.

To Protect the Public and the Resources:

- Develop controlled park access points.
- Provide administrative (park staff and association) offices.
- Develop maintenance facilities (storage, staff residences, shop).

• Transportation and Circulation

To Encourage Non-Automobile Transportation To and Within the Park:

- Encourage local transit systems to provide scheduling to the park when economically feasible.
- Encourage local government agencies to plan and implement hiking and bicycle trail systems connecting to the park.
- Develop new park trails where possible to connect park use areas, and enhance visitor use of trails by providing shade shelters and benches and making trails disabled-accessible where feasible.
- Encourage the use of self-propelled boats (kayaks, canoes, sailboats, etc.) for visiting areas of the park that are inaccessible by car or foot.
- Minimize road construction. Use existing roads and trails where possible. Provide vehicular access to the water in one location only.

To Emphasize Low Impact/Aesthetic Design Criteria for New Roads and Utilities:

- Design and site roads for minimum environmental impact and visibility.
- Use sensitive road grading and rounded and revegetated cut and fill slopes.
- Locate utility lines out of view (underground where feasible).

To Maintain Recreation Densities in Balance with Functional Capacity and Safety of Access Roads; and to Avoid Increasing Facilities Where Access Standards Are Marginal:

- Do not increase recreational capacity at the North Flat or ranch area until vehicle access problems are solved.
- Solve traffic/access conflict on Lakeview Way with acquisition and development of a controlled parkway entrance road to the North Flat directly from Old Highway 53.
- Provide safer park access to the ranch/proposed visitor center area from a future Caltrans frontage road off Highway 53, or by developing a controlled park entrance to the south.

To Mitigate Highway 53 Widening and Realignment Through the Park to Minimize Environmental Impacts on the Park:

- Mitigate loss of Seigler Creek riparian areas through re-vegetation and/or replacement of riparian lands, and the loss of other park lands through additional acquisition.
- Negotiate with Caltrans to provide a landscaped sound wall between the ranch area and Highway 53 to screen the highway and cut traffic noise.
- Provide a "separated-grade" undercrossing for park pedestrians and wildlife circulation at Highway 53/Cache Creek bridge.

• Water Use

To Limit Boating for Low Density, Low Speed, and Low Noise:

- Do not provide additional boat launching facilities at the park.
- Eliminate recreational use of the old boat launch ramp at the mouth of Molesworth Creek. Water no longer reaches the ramp during most of the year. The area was overused in the past and access to the ramp crosses an important archeological site within the primary historic zone. An important wildlife habitat has re-established itself here.
- Enhance the existing car-top boat launch area at White Bridge with development of a small-boat launch ramp (vehicle accessible) north of the bridge and by shoreline improvement or floating docks south of the bridge to accommodate day-use docking for about 20 boats.
- Maintain boat speeds limits in Cache Creek and the marsh at 5 mph.

• Recreation Activities

Under this General Plan, opportunities for enjoying recreational and educational experiences will be provided through the following activities:

Tule collecting (1)
Berry picking (2)
Boat excursions (3)
Sailing
Canoeing/kayaking
Cruising waterways
Sightseeing
Museum tours
Living History Programs
Environmental Living Programs
Special events
Nature study
Hiking
Birdwatching
History study
Photography
Fishing
Picnicking
Swimming
Carp-shooting (4)
Archeological study
Camping

Footnotes:

(1) Each year local Indians collect tules and willow materials for basket-making. It is proposed that this practice be allowed to continue within locations to be designated by the district superintendent.

(2) The ranch area includes fruit trees remaining from the ranching period. It is proposed that visitors be allowed to collect fruit from these trees, as well as from berry bushes.

(3) Via park-operated boat with interpretive programs conducted by park docents and rangers.

(4) By special event permit only within locations designated by the district superintendent outside the natural preserve, and with activities and impacts monitored and evaluated.

• Acquisition

The following discussion and all other comments regarding land acquisition are intended for long-range planning purposes only and are not a commitment to acquire. It would be desirable to provide additional public lands at Anderson Marsh State Historic Park to solve existing problems, to assure public realization of the park's recreation potentials, to add to the enjoyment and appreciation of the park's resources, and to maintain the integrity of the park (see Map 9). More specifically, it is recommended that acquisition be carried out in the following order:

First priority

Lands or rights-of-way required for improved public access to park property and to carry out early phased development of visitor support facilities. Improved access is needed from Highway 53 at the ranch area and directly from Old Highway 53 at the north park boundary.

Second priority

All inholding properties and rights-of-way through the park. It is necessary to reduce problems with private access over park property as well as with patrol and land management procedures. Garner Island and private recreation access easements at Molesworth Creek should be acquired to eliminate these problems.

Third priority

Abutting private lands with ecological values or those desirable to protect scenic, cultural, and natural values already in public ownership. This would include lands along Seigler Creek and Cache Creek (near Seigler Creek) with riparian vegetation, and properties to the south of the park and to the west of Garner Island within the park's viewshed. For the purposes of managing an entire ecosystem, it would be desirable for the department to acquire the National Audubon Society's McVicar Wildlife Sanctuary.

Proposed Land Use Zones

The Land Use Plan (Map 10) shows the proposed uses for various areas. In designating uses for particular areas, planners worked within the limitations imposed by allowable use intensities and normal cost factors, as well as with the need to consider existing land uses, activities, and proposed facilities.

Anderson Marsh State Historic Park can be divided into five basic land uses: developed day use, developed overnight use, interpretive use, operations use, and natural or open space.

The order of the following land use areas identifies them by land use priority (the highest first).

INTERPRETIVE USE

Cultural resource interpretation will occur primarily within or near areas of cultural significance. This land use area includes parts of the primary historic zone, and the ranch area where restoration and preservation will take place.

OPEN SPACE / UNDEVELOPED

Open space includes those areas of the highest natural resource significance and scenic value, including the natural preserve. Only low-intensity recreation may take place in this area (hiking, boating, and the like).

DEVELOPED DAY-USE

Developed day-use areas will be provided at two locations in the park, Anderson Ranch and the North Flat.

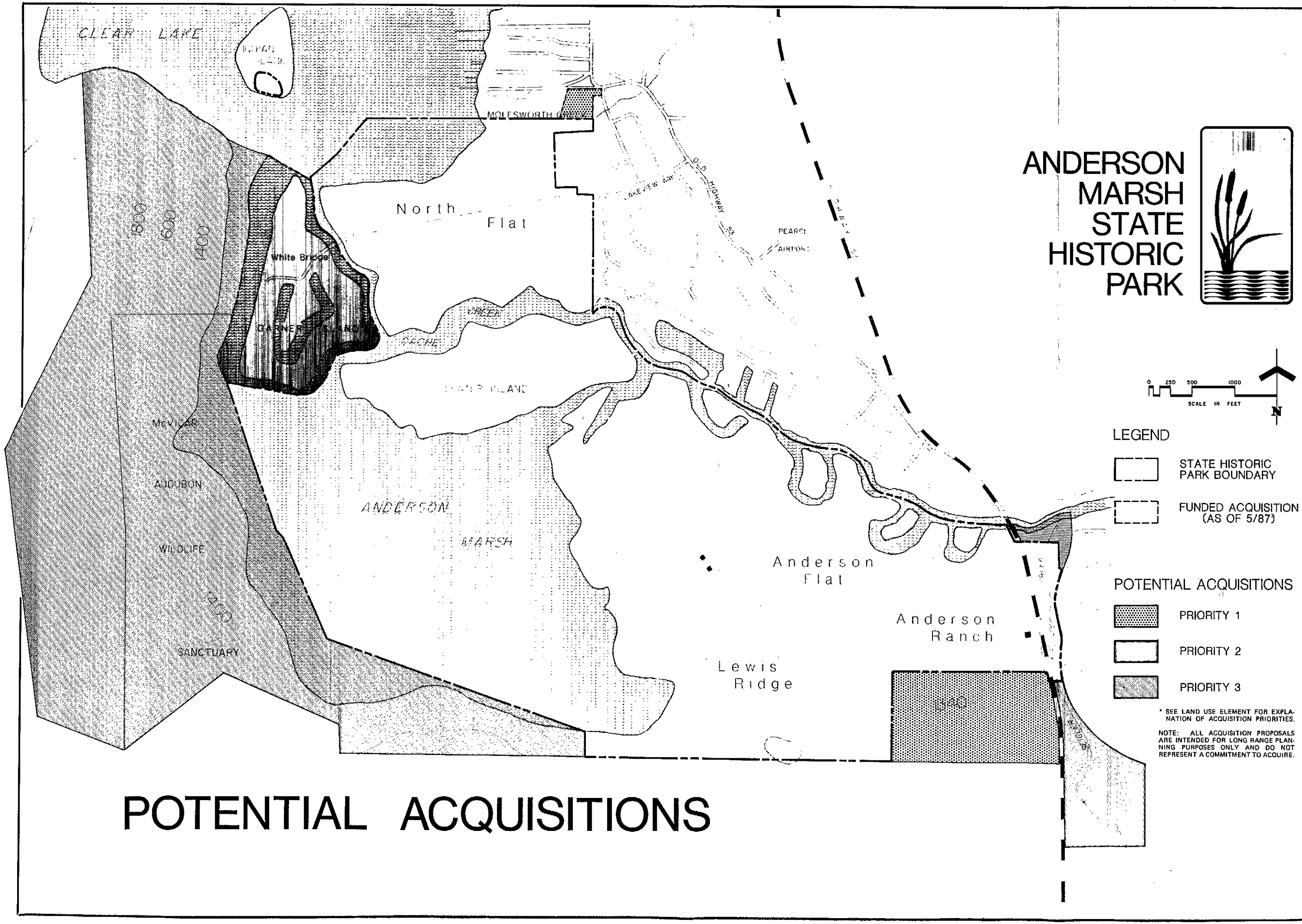
An aerial view indicating the proposed land use zones in the North Flat, based on Map 10; Operations (A), Overnight (B), Day-Use (C), and Open Space (D). (Boundaries approximate).

OPERATIONS USE

Operations areas include administration, maintenance, and service areas needed to provide support for park operation. Included in this area in the North Flat are staff residences, equipment storage, park office, etc. (Administrative offices and small storage areas may also be located in recrea-tional or interpretive facilities within other land use areas).

DEVELOPED OVERNIGHT USE

The area in the North Flat near the east park boundary west of the church has been designated for developed overnight use, with controlled family camping.



ANDERSON MARSH STATE HISTORIC PARK

POTENTIAL ACQUISITIONS

DESIGNED | DRAWN 5/87 | CHECKED

DATE | REVISIONS

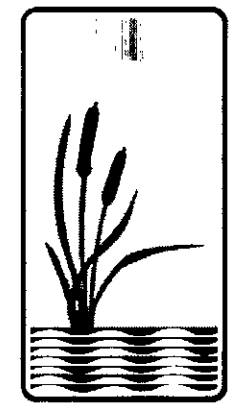
RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION
APPROVED _____ DATE _____

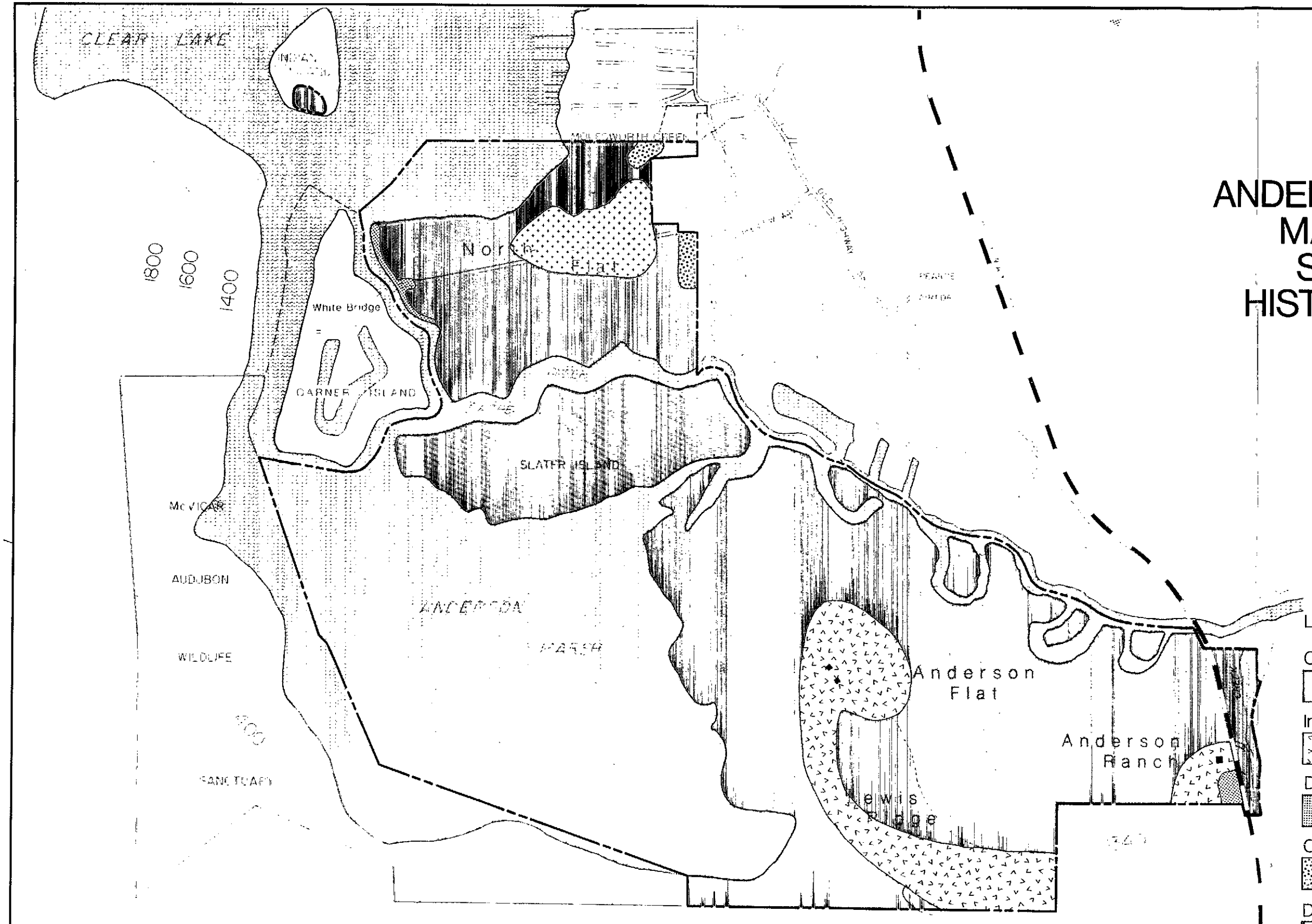
ANDERSON MARSH STATE HISTORIC PARK
POTENTIAL ACQUISITIONS
GENERAL PLAN - LAND USE ELEMENT

DRAWING NO. 23067

Map 9

ANDERSON MARSH STATE HISTORIC PARK





LAND USE

Open Space/Undeveloped

NOTE: UNLESS OTHERWISE INDICATED, CACHE CREEK AND ANDERSON MARSH ARE DESIGNATED OPEN SPACE AREAS.

Interpretive Use

Developed Day Use

Operations Use

Developed Overnite Use

NOTE: A SMALL SINK WITHIN THIS AREA MAY REQUIRE MITIGATION.

ALL PROPOSALS REGARDING LAND ACQUISITION ARE FOR LONG-RANGE PLANNING PURPOSES ONLY AND DO NOT REPRESENT A COMMITMENT TO ACQUIRE

LAND USE PLAN

DESIGNED | DRAWN 5/87 | CHECKED

REVISIONS | DATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION

APPROVED _____ DATE _____

ANDERSON MARSH STATE HISTORIC PARK

LAND USE PLAN

GENERAL PLAN - LAND USE ELEMENT

DRAWING No. 23068

Map 10

Facilities Element

Facilities Element

The Facilities Element identifies existing facilities and recommends improvement or development of new facilities at Anderson Marsh SHP. Architectural design concepts, utility concerns, and priorities for development are also discussed.

Various recreational and other facilities are necessary for optimum public access, use, and enjoyment of the unit. Roads, trails, campsites, boat launch areas, restrooms, and parking areas are typical of the many types of public-use facilities to be provided. Maintenance yards, utilities, and administrative offices are examples of the other facilities needed for operation and maintenance of the park. (The Glossary of Terms, Appendix B, may be useful for definition of various types of facilities).

Summary of Existing and Proposed Public Facilities

Facilities	Existing	Proposed	Total
Visitor center/ ranch parking	(1) 30 cars*	(1) 60 cars	(1) 60 cars
Visitor drop-off area	--	(1) 10-15 cars	(1) 10-15 cars
Overflow parking	(1) 300 cars	--	(1) 300 cars
Shoreline access	(1) 50 cars	(1) 25 cars	(1) 75 cars
Hiking trails	4 miles	2 miles	6 miles
Scenic overlook	--	(1)	(1)
Car-top boat launch	(1)	--	--
Small-boat launch	--	(1) 1 lane	(1) 1 lane
Picnic areas	(1) 8 sites*	(2) 20-30 sites	(2) 20-30 sites
Auto campground	--	(1) 35-50 sites	(1) 35-50 sites
Entrance stations	--	(2)	(2)
Ranger residence	--	(1)	(1)
Maintenance facility	--	(1)	(1)
Sanitary facilities	--		
Portable toilets	(2) 4-8	--	(2) 2-6
Compost toilets	--	(2)	(2)
Combination bldg.	--	(1)	(1)
Comfort station	--	(2)**	(2)**

* to be deleted
** including visitor center

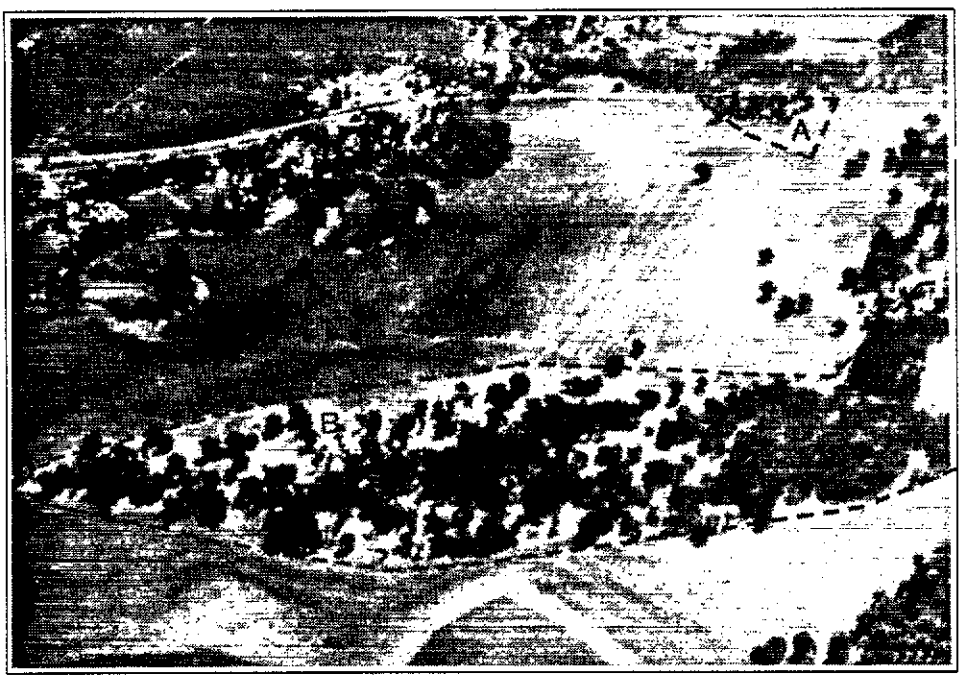
Facilities by Area

As Anderson Marsh State Historic Park's primary purpose is interpretation and passive recreation, development of recreation facilities will not be emphasized. Clear Lake State Park and private commercial parks meet some of the projected demand for day use and camping facilities identified in the Regional Recreation Profile (see General Plan Introduction).

Facilities at the park are to be concentrated in three use areas. Each of these areas will have its own particular emphasis:

1. Primary use of the **Anderson Ranch Area/Visitor Center** is interpretation. The visibility of the existing ranch structures has a tendency to overshadow the more significant, but less visible, Native American and archeological resources of the park. Development of a visitor/orientation center south of the ranch area will tell the story of the park's Native American, Euroamerican, and natural resources in proper perspective, while only Euroamerican resources will be interpreted at the ranch.

2. **Lewis Ridge** plays an extremely significant role in the interpretation of archeology and Native American culture. The oak-studded ridge, visible from most areas of the park, has remained essentially the same over the last 10,000 years. The natural character of the ridge, with its archeological sites, must be protected. Its integrity should not be diminished by Euroamerican structures or incompatible recreational development.



An aerial view, looking northeast, indicating the Anderson Ranch/Visitor Center Area (A) and Lewis Ridge (B), the tree-studded area in foreground.

3. Visitors primarily interested in pursuing recreational activities will be accommodated at the **North Flat**. New and improved facilities will be provided whose design and location take into consideration sensitive natural and cultural resources and the tendency of this area to flood.

An aerial view of the North Flat, looking northeast.

• Anderson Ranch

The Anderson Ranch is located immediately west of Highway 53 in the southeast corner of the park. The house and related structures were in a state of deterioration when purchased by the Department of Parks and Recreation in 1982. Some basic restoration of the house and south barn has taken place since then, and the department is attempting to budget funds for additional restoration work. The existing unpaved and undefined parking area in front of the ranch house intrudes on the historic ranch scene. Two chemical toilets are provided for public use. Picnic sites (actually tables arranged on the house lawn) are substandard. The access spur directly off Highway 53

is narrow and unsafe; there are no turn lanes or acceleration/deceleration lanes on the highway.

House tours are conducted by docents and ranger staff. Volunteer programs (Tea and Musicale, Blackberry Festival, Ranch Heritage Day, and Christmas Open House) have become popular annual events. Overflow parking for these special events is accommodated in the open field to the south and west of the ranch barns. Existing parking is adequate on even the most crowded occasions.

From the ranch area, two trails lead off; one goes north from the ranch house to Cache Creek, the other goes west from the south barn to Lewis Ridge and from there to Audubon McVicar Wildlife Sanctuary.

Recommendations

Enhance/upgrade existing facilities:

1. Restore house, adjacent barns, and grounds for interpretation.
2. Adapt southeast shed to provide a public restroom/maintenance storage facility and the garage for office space/volunteer program kitchen facilities.
3. Eliminate parking from the center of the ranch area.
4. Add shade ramadas, benches, and interpretive signs to existing trails. The seasonal Cache Creek trail may be redirected to provide footbridge access to one of the oxbows (if it is determined that such a trail can be established and used without significant environmental impact).

The plan recommends restoration of the Anderson Ranch House, barns, and grounds for interpretation.

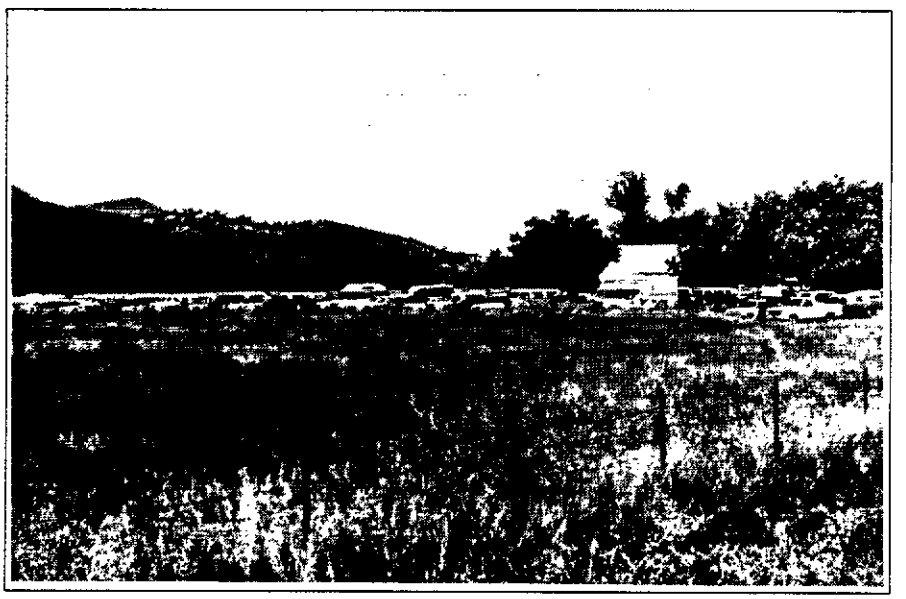
Additions:

1. 10 to 15 picnic sites, south of the ranch yard, under the existing trees.
2. 50 to 75-car paved parking area south of the south barn (see discussion below on location of the Visitor Center parking).
3. New or improved access from Highway 53 and a new entrance station.

Other:

1. Maintain overflow parking in the open field west of the ranch barns.

• Visitor Center



The existing overflow parking area and proposed visitor center site.

The site for the visitor center is located southeast of the south ranch barn. Depending upon the configuration and location of mitigation lands to be added south of the ranch area by Caltrans, the visitor center may be sited in what is now part of the existing overflow parking area or further south in the new lands. This general area is outside the historic ranch complex and, with careful siting southwest of the barn, the visitor center can be screened from view of the ranch. New access to be developed for the ranch will also serve the visitor center, and one centralized parking area should serve both facilities (see Additions, Items 2 and 3 above).

A function of the visitor center will be to provide a facility for the analysis, curation, storage, and interpretation of Native American artifacts. The visitor center will also provide an

orientation to the various areas of the park, displays and exhibits for natural and cultural resource interpretation, storage and display of archeological artifacts, an archeological laboratory, restrooms, and office and meeting space.

• Lewis Ridge

This ridge, with the highest elevations in the park, overlooks the marsh to the west, with views to and from most other areas of the park. Many archeological sites are located here. The ridge is a popular park destination for hikers, birdwatchers, and archeology fans. An unpaved ranch road runs along the top to two nonhistoric hay barns at the western end of the ridge. Maintenance of the road is necessary for fire control and public safety. Near the eastern base of the ridge, tule huts have been constructed as part of the Cultural Heritage Council's Archeological Field School summer programs. There are no other recreational facilities on the ridge.

Recommendations

Enhance/upgrade existing facilities:

1. Eliminate existing ridge barns.
2. Construct Pomo Village with round house, tule huts, and cook shack.
3. Provide restroom facility.

Additions:

1. Marsh overlook and interpretive display.
2. Defined but unpaved disabled drop-off and limited parking area (10-15 vehicles).
3. Interpretive trail at the northern tip of Lewis Ridge.

Proposed marsh overlook site.

Other:

1. Maintain unpaved road from ranch to village site and ridge for access by emergency and service vehicles and for transportation during special events and by special permit.

Proposed interpretive trail location north of Lewis Ridge, looking towards Slater Island.

• North Flat

Separated by Cache Creek from the southern portion of the park, the North Flat is reached from Old Highway 53 via Lakeview Way, which runs west to the park and then via dirt road to

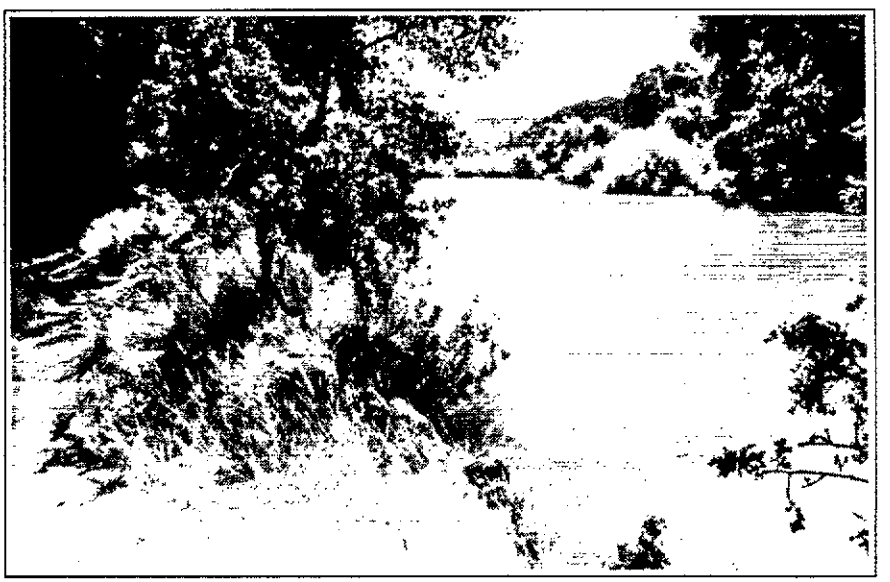
View towards Cache Creek and Garner Island from the existing parking area in the North Flat.

privately-owned Garner Island. Existing facilities include chemical toilets and a defined but unpaved parking area for about 50 cars at the end of the park road, east of White Bridge. Parking capacity does not always accommodate existing use on holidays and good fishing weekends. A rough path along Cache Creek's north shore is used by fishermen, swimmers, and picnickers. A car-top boat launch area is located just north of the White Bridge abutment. Frequent flooding inundates much of the flat.

Recommendations

Enhance/upgrade existing facilities:

1. Pave and increase capacity of existing parking area to 75 cars.
2. Upgrade existing car-top boat launch area north of White Bridge to small-boat launch ramp. Contour shoreline south of White Bridge or provide floating docks to accommodate day-use docking for about 20 boats.
3. Provide disabled-accessible wetlands trail (may require raised boardwalk in some locations).



The existing hiking trail along Cache Creek north of White Bridge will be improved to provide access and a fishing platform for the disabled.

4. Develop new park access, entrance road, entrance station, and park office directly off Old Highway 53. Close public park access from Lakeview Way at the park boundary while retaining access to the church.

Additions:

1. Picnic area north of the parking area (10 to 15 sites).
2. 35 to 50-unit family campground placed to avoid

impacts to the most sensitive areas. Area to be revegetated for screening and shade.

3. Maintenance/employee residence area south of church.

Other:

1. Retain portable toilets. (No improvements due to flooding.)

All facility proposals are shown on the Facilities Plan (Map 11).

The proposed day-use area on the North Flat, looking northeast from above Garner Island, showing (a) the extension of Lakeview Way through the park to White Bridge (b), (c) the parking area, (d) proposed boat launch area, (e) proposed boat docking area, (f) proposed disabled-accessible trail, and (g) proposed picnic area.

Architectural Design Concepts

The following concepts, some of which have been established by the Department of Parks and Recreation on a statewide basis, will provide standards and guidelines for the design of facilities at Anderson Marsh State Historic Park. The concepts are intended to conserve natural resources, assure opportunities for use of facilities by disabled persons, and develop facilities compatible with the environment.

- Design and construct architectural structures that respond to the need for conservation of energy and other resources.
- Provide outdoor furniture constructed with native materials wherever possible.
- Encourage the conservation of nonrenewable resources and promote the research, development, and use of various alternative energy sources in meeting park utility requirements. For example, solar space heating, solar water heating, and skylights will be used where practical.
- Design and construct facilities, including structures, walks, and ramps, to be accessible and usable by physically disabled persons.
- Emphasize the use of wood and masonry materials. Roofs are to be fire retardant.
- Emphasize harmony between building and site.

Utility Concerns

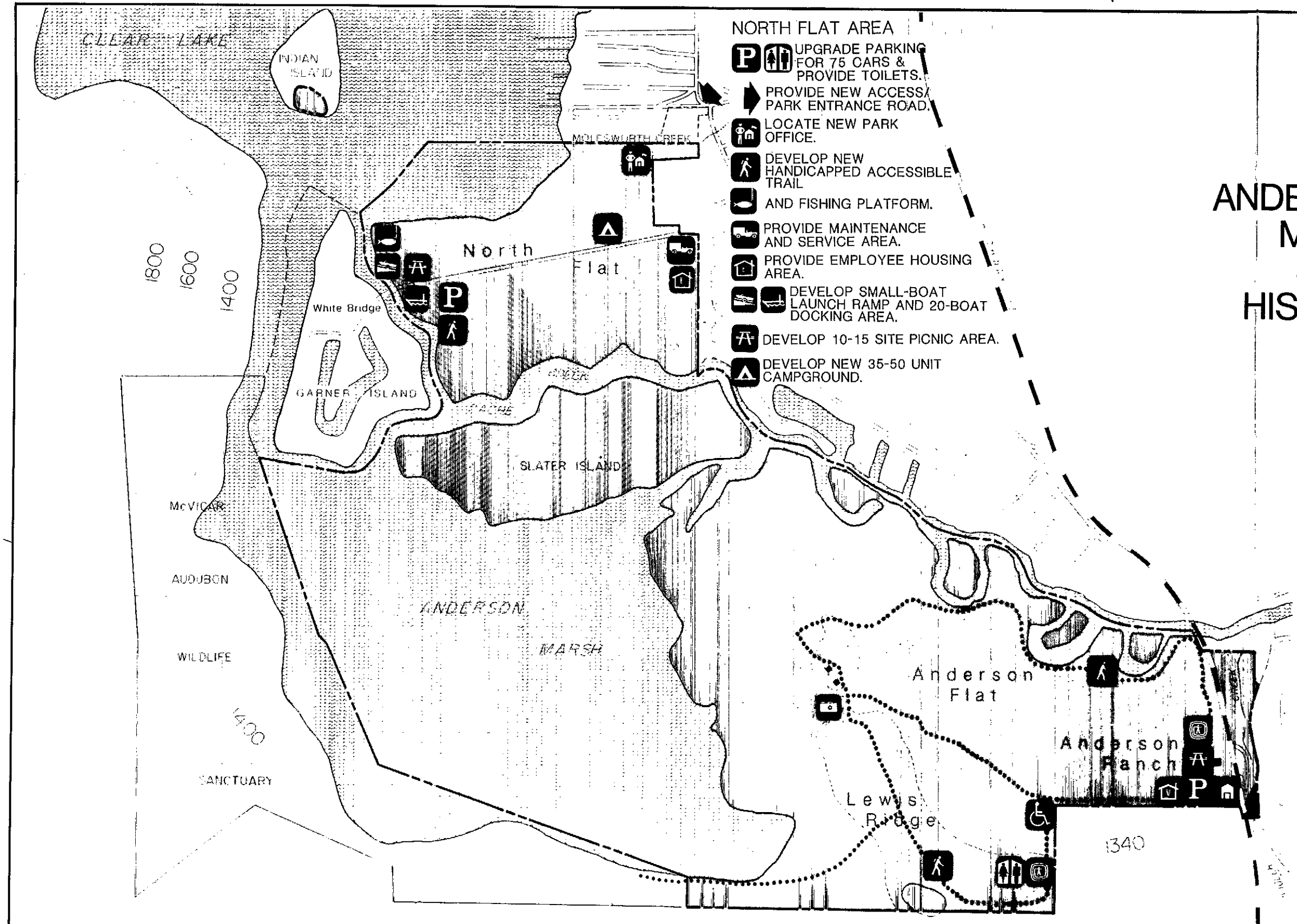
This information is meant to provide a general background of the capabilities and problems related to providing utilities for proposed park development. Further studies and negotiations with the City of Clearlake and Lake County may be required, based on more comprehensive development plans for the park. (See Map 10 for locations of proposed facilities.)

• Anderson Ranch/ Visitor Center

Anderson Ranch currently is served by telephone and electricity provided by Pacific Bell and Pacific Gas and Electric, respectively.

There is one toilet in the ranch house. The only public sanitary facilities are chemical toilets. Public restrooms are proposed to be developed in the ranch area and at the visitor center. Lake County Special Districts serves this area of the park. Sewer connection can be made after permit and payment of capacity and tap fees.

A water well serves the ranch house. The existing well or a new one could be used for proposed development. Lower Lake County



NORTH FLAT AREA

- UPGRADE PARKING FOR 75 CARS & PROVIDE TOILETS.
- PROVIDE NEW ACCESS/ PARK ENTRANCE ROAD.
- LOCATE NEW PARK OFFICE.
- DEVELOP NEW HANDICAPPED ACCESSIBLE TRAIL
- AND FISHING PLATFORM.
- PROVIDE MAINTENANCE AND SERVICE AREA.
- PROVIDE EMPLOYEE HOUSING AREA.
- DEVELOP SMALL-BOAT LAUNCH RAMP AND 20-BOAT DOCKING AREA.
- DEVELOP 10-15 SITE PICNIC AREA.
- DEVELOP NEW 35-50 UNIT CAMPGROUND.

ANDERSON MARSH STATE HISTORIC PARK

SCALE IN FEET 0 250 500 1000

N

ANDERSON RANCH/VISITOR CENTER

- RESTORE RANCH BUIDINGS AND GROUNDS.
- DEVELOP NEW VISITOR CENTER
- PROVIDE NEW 50-75 CAR PARKING. MAINTAIN EXISTING OVERFLOW PARKING.
- DEVELOP NEW PARK ACCESS.
- PROVIDE CONTACT STATION.
- RELOCATE PICNIC AREA (10-15 TABLES).
- IMPROVE CACHE CREEK TRAIL.

LEWIS RIDGE

- RECONSTRUCT POMO VILLAGE.
- PROVIDE HANDICAPPED VEHICLE ACCESS POINT.
- PROVIDE RESTROOM. PROVIDE INTERPRETIVE TRAIL.
- IMPROVE RIDGE TRAIL. PROVIDE INTERPRETIVE TRAIL.
- REMOVE EXISTING BARNS. DEVELOP MARSH OVERLOOK.

FACILITIES PLAN

DESIGNED | DRAWN 5/87 | CHECKED

REVISIONS | DATE

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

ANDERSON MARSH STATE HISTORIC PARK
FACILITIES PLAN
GENERAL PLAN - FACILITIES ELEMENT

DRAWING NO. 23069

Map 11

Waterworks District No. 1 also serves this area. Connection to their water main would require an approximate 1600 l.f. extension.

Piped gas does not exist in this area. Bottled gas is available.

Storm drainage is under the jurisdiction of Lake County. Drainage for this site will require detailed study based on the future design and layout of the site for development.

- **Lewis Ridge**

The ridge currently has no water, sewer, electrical or telephone service. No domestic water, sewer, or telephone service is proposed. PG&E power is available within 250 feet of the park boundary. In the future, it may be desirable to provide an electrical hook-up at this site for special event needs.

No sanitary facilities now exist. A restroom facility, possibly a compost toilet, uphill from the Pomo Village is proposed and should be supplemented with portable toilets during special events.

Special events at the Pomo Village site may also require that water and additional cooking needs be satisfied through the use of portable generators plus bottled gas and water at the cook shack. Future development may include the provision of running water for fire suppression.

Installation of underground electrical and water service may require mitigating measures due to the archeological sensitivity of the area.

- **North Flat**

Electrical and telephone service in this area of the park can be provided by PG&E and Pacific Bell, respectively. Connections are available at the eastern park boundary.

The use of portable toilets at the White Bridge parking area will continue. Campground development will require a combination restroom/shower building. Sanitary facilities will be required at the maintenance/staff residence area. Sewer service can be provided by the City of Clearlake; connections are near the site.

The Highlands Water Company supplies domestic water within 300 l.f. of the park at the North Flat.

Storm drainage is under the jurisdiction of the City of Clearlake. Development in this area may require culverts and the use of open ditches.

Priorities for Development

The general priorities in this section are intended to guide budget decisions in order to accomplish the most important things first, in terms of visitors' health, safety, resource protection, public access, and enjoyment. This program will be carried out over a long period of time; consequently, some priorities are likely to change as time goes on. The availability of funds or staff may also cause priorities to change. As each phase is completed, it will be prudent to evaluate how the facilities are being used and to determine what future development is appropriate to accommodate visitors and their needs within the constraints of this plan. The phasing of development is based on estimates of what accesses will be acquired or available first. An overriding consideration is to provide visitor support facilities where the safety and functional capacity of accesses and access roads is adequate.

• Priority I

1. Restore and rehabilitate the ranch house, barns, and grounds.
2. Develop new ranch access and entrance road.
3. Construct the Pomo Village and drop-off area.
4. Improve Cache Creek trail from the ranch house.
5. Improve trail north of White Bridge.
6. Remove ridge barns.
7. Develop marsh overlook on Lewis Ridge.
8. Develop interpretive trail at end of Lewis Ridge.
9. Revegetate North Flat oak-woodland.

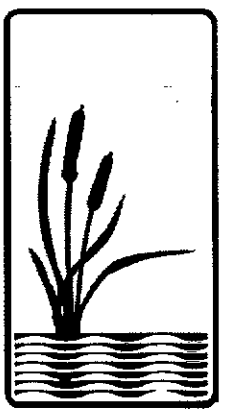
• Priority II

1. Relocate ranch parking.
2. Work with Caltrans to provide a landscaped sound wall between ranch area and highway as mitigation for Highway 53 improvements.
3. Develop picnic area in ranch complex.
4. Develop maintenance/employee residence area.
5. Develop visitor center.

• Priority III

1. Develop trail south of White Bridge.
2. Upgrade North Flat day-use parking and increase capacity to 75 vehicles.
3. Develop small-boat launch ramp and docking area.
4. Complete picnic area near White Bridge parking area.
5. Develop new north park access and entrance road; close Lakeview Way west of the church.
6. Develop campground.

The Unresolved



The Unresolved

Cache Creek Flood Control Project - U.S. Army Corps of Engineers

Prior to the department's acquisition of Anderson Marsh SHP, the U.S. Army Corps of Engineers prepared several Clear Lake flood control alternatives along the reach of Cache Creek now within the unit. The preferred alternative proposed a 1.1 mile bypass canal around the Grigsby Riffle, a natural obstruction within the Cache Creek channel. The bypass canal was favored because of its relatively cheaper cost and fewer recognized environmental impacts.

However, following preparation of the alternatives, considerable archeological evidence was discovered within the proposed alignment of the bypass canal. Active local public and departmental involvement has resulted in changing the scope of the flood control project. The Corps of Engineers current preferred alternative is a project to deepen and widen the existing channel.

Before the Corps changed the scope of its flood control project, the State Park and Recreation Commision classified the unit a state historic park in recognition of the significance of the archeological resources and Native American values in the unit. In doing so, the commission specifically resolved that it was its intent "that no use of such area be for the purpose of constructing or maintaining any drainage facility by the Corps of Engineers or other Agency."

Within the state historic park, a 540-acre natural preserve was classified and established to recognize and protect important wetland and wildlife habitat, including a significant reach of Cache Creek that will be impacted by the flood control project. Both by State Park and Recreation Commission policy and provisions of the Public Resources Code, disruptive activities are prohibited in the natural preserve.

Accommodating the construction of the flood control project will require reclassifiction action by the Park Commission and off-site mitigations by the department, possibly including replacement of lands and resources lost in the natural preserve with other appropriate habitats within the park. It will also require both on-site and off-site mitigations, possibly including land exchanges, on the part of the Corps of Engineers.

All of these details will need to be resolved after specific plans have been prepared by the Corps of Engineers, and before flood control construction commences.

Highway 53 Widening and Realignment - Caltrans

The department has worked closely with the Department of Transportation to determine the most compatible highway alignment in order to protect the values of the park. The preferred alternative has impacts on both the natural and cultural resources of the unit that must be mitigated during and after construction.

Unresolved issues include noise mitigation, and the configuration and location of exchange lands to be added to the park. These will influence acquisition and the location of the visitor center and parking at the ranch area.

Access and Acquisition of Inholdings and Viewshed Lands

While funding has been appropriated by the Legislature to purchase Garner Island and a small parcel needed to develop a new access to the North Flat, it has not been determined whether the existing property owners are willing sellers.

Additional or increased recreational facilities in the North Flat are dependent upon provision of a new access in order to minimize conflicts with the adjacent homeowners along Lakeview Way. As an inholding, Garner Island is considered essential for addition to the park for proper operational control of the unit as well as for preservation of the island's significant cultural and natural resource values.

All proposals for additional acquisiton are dependent upon the appropriation of funds by the Legislature, and are subject to review and approval by the State Public Works Board. All acquisition proposals are for long-range planning purposes only and do not represent a commitment to acquire.

Environmental Impact Element

Environmental Impact Element

The Environmental Impact Element (EIE) predicts the environmental effects that would result from implementation of the General Plan. Together with the other elements of the General Plan, it constitutes an Environmental Impact Report (EIR) as required by the California Environmental Quality Act (CEQA).

As its name suggests, a General Plan for a state park unit describes the department's long-term plans and policies for that unit in what must necessarily be a generalized fashion. The EIE focuses on the likely effects of these generalized plans and policies, suggests mitigations measures, and considers alternative actions.

As specific development proposals carrying out the General Plan are included in the department's annual budget, the department will document their environmental effects as required by the CEQA and the state CEQA guidelines.

An initial study was done for this General Plan (see Appendix C). The Environmental Impact Element focuses primarily on those impacts that the initial study found as possibly having a significant effect on the environment. The General Plan becomes, then, a focused EIR as described in the state CEQA guidelines.

Summary

- Class I Impacts
- Class II Impacts

Unavoidable Significant Environmental Impacts

Implementation of the General Plan should cause no unavoidable significant adverse impacts on the environment.

Mitigable Significant Environmental Impacts

Impacts	Mitigation	Comments
Willows may spread throughout the marsh, impacting fish, wildlife, and birdwatching.	DPR, in cooperation with the Redbud Audubon Society, should adopt a marsh management plan.	Impacts can be mitigated to a level of insignificance.
Traffic congestion & unsafe conditions would become worse at the point of access to the ranch complex from Highway 53.	Immediate: In coop-ation with Caltrans, install traffic control signs warning of intersection and prohibiting left turns in and out of the ranch.	Partial mitigation; many motorists would ignore the signs.

Mitigable Significant Environmental Impacts (cont'd)

Impact	Mitigations	Comments
	Intermediate: Caltrans project alternative "G": move access road 500' south, add left turn/ acceleration lane. Long-term: Caltrans project alternative "H": access via freeway interchange and frontage road.	Large reduction of impact, but some residual hazard w/ egress from ranch complex. Complete mitigation.

- **Class III Impacts**

Adverse But Not Significant Impacts

Impact	Mitigation	Comments
Mud and dust from North Flat entrance road.	Immediate: Dirt roads closed when muddy. Dust suppressant applied if needed. Long-term: Entrance and campground roads surfaced or paved.	Mitigation complete.
Campers would occasionally be bothered by noise from other campers.	None.	Staff shortages would not allow complete enforcement of noise regulations.
New parking areas at the ranch complex and campground would cause glare.	Trees and shrubs should be planted to shade and screen the parking areas.	Glare can be satisfactorily mitigated.
Campground lighting would be a new source of night light.	Lighting should be designed to limit the area lit.	Campers' lamps would remain a minor source of light pollution.
Vehicle emissions, wood fires, and prescribed burns would add to local air pollution.	None for vehicles. Prescribed burns require local air quality permits.	Residual impact not significant.
New water demand and sources of sewage at North Flat and ranch complex.	Hookups to local water and sewage treatment systems.	Impact mitigated.

Project Description

For a description of the General Plan, see the General Plan Summary. More detailed descriptions are found in the following sections of the General Plan: for policies dealing with the natural and cultural resources of the park, the Resource Element; for facilities development plans, the Facilities Element. The park's natural and cultural setting is described in detail in the Resource Element. Other aspects of the park's environment are described in the following section.

Environmental Impacts and Mitigations

- **Geology, Soils, and Hydrology**

Existing Conditions

Although there have been no strong earthquakes centered in Lake County since 1900, much of the park is underlain by Recent or Quaternary sediments which are susceptible to ground rupture, shaking, or (where saturated) liquefaction in the event of a strong earthquake.

According to preliminary ratings by the U.S. Soil Conservation Service, all the soils within the park have some use constraints. For the North Flat there are problems of flooding and high water tables. The soils lack structure, have high shrink-swell properties, and are dusty when dry. This presents severe constraints for buildings and campgrounds, and moderate constraints for roads, picnic areas, and trails.

The General Plan calls for development at two generalized locations on North Flat: on the western side along Cache Creek near White Bridge; and along the eastern boundary on both the north and south sides of Lakeview Way.

North Flat/Cache Creek Day-Use Area: Existing development includes the access road (Lakeview Way extension), and unpaved parking area, chemical toilets, and a car-top boat launching area. All existing and proposed developments in this area are at or below the elevation of 1,326 feet, on land that floods during most years.

East Side of North Flat: There are no existing facilities on the east side except for the Lakeview Way extension.

Impacts

The Whole Park: A strong earthquake could damage park structures and injure park staff and visitors.

North Flat/Cache Creek Day-Use Area: When wet, the road, parking area, and trails in this area can become rutted mires. When the soil dries in the summer and fall, these facilities become dusty. The General Plan calls for paving the road and parking area: this will solve mud and dust problems.

East Side of North Flat: The General Plan calls for a residence and maintenance yard, closure of Lakeview Way as an entrance road and construction of a new entrance road (with entrance kiosk) further to the north, and location of a 35 to 50-unit developed campground.

The residence and maintenance yard are to be located on land at or above the 100-year flood level (elecvation 1,331 feet), so they should flood only at very long intervals. The campground has not been precisely sited, but privacy/noise considerations dictate that it be located at some distance from the boundary - perhaps more than 150 feet away - which would place it partly below the 100-year flood line. The campground would be subject to very occasional flooding, muddy conditions, and dust.

Proposed Mitigation

The Whole Park: The Resource Element of the General Plan proposes that visitor structures be designed to withstand liquefaction or else not be built in areas of the park subject to liquefaction. The North Flat is the only part of the park where proposed visitor-serving structures (a restroom/shower building and an entrance kiosk) apppear to be subject to liquefaction. These structures will be designed to state standards and should be able to withstand the effects of a strong earthquake without collapsing.

North Flat/Cache Creek Day-Use Area: Until the proposed paving is accomplished, park staff should continue to close the Cache Creek day-use area to vehicles when it is flooded or wet. Should dust on the road and parking area become intolerable, a dust control should be applied or these facilities should be closed to vehicles. This measure and future paving would fully mitigate the mud and dust effects.

East Side of North Flat: The Clear Lake Outlet Channel enlargement project will lower the 100-year flood elevation contour by about 1.3 feet, to about 1,328 feet elevation. This would open up more area with potential for campground development that would be out of the 100-year floodplain. The Corps of Engineer's projected completion date for the plan for the channel enlargement project is 1991; no date is projected for completion of the project itself.

The campground entrance road, as well as the internal roads and parking spurs, could be built on well-drained and compacted fill, and all the bare surfaces such as pads, paths, and campsites surfaced with appropriate material (asphalt, cinders, crushed rock, chips, etc.). These measures would fully mitigate the mud and dust effects.

Discussion

The General Plan assigns low priority to development of the campground. It probably will not be built before the floodplain is lowered by the channel enlargement project.

Building the campground on fill would allow it to be used year-round. There would be, however, some question about keeping the campground open at a season when the rest of the recreational facilities on the North Flat are closed. This is an operational matter dependent on staffing, demand, and resource protection considerations.

• Vegetation

Existing Conditions

The plant life in the park is described in the Resource Element. Two vegetation habitat types found in the park, riparian forest/woodland and oak forest/woodland, are of special concern because of their decline in California and because they are important to many kinds of wildlife. Both of these habitat types were probably at one time more widespread on the property than they are now. For example, much of the North Flat was probably an oak woodland before settlers started farming the area. Popular recreation areas such as the bank of Cache Creek near White Bridge are bare and worn in spots because of heavy use. Since 1983, when cattle grazing which controlled the willows ended, dense thickets of willows have begun to appear within the marsh. Changes made to the marsh's depth and water circulation by farmers may also have made it more favorable for willows. According to some local Pomo informants, the marsh was largely open and free of willows before white settlers arrived. Fires, wild or deliberately set, and willow harvesting may have kept the willows down at that time.

Impacts

The recreation developments for the North Flat will bring more people to the area. Some plant cover along the banks of Cache Creek will continue to be lost as a result of trampling. The loss of affected plant cover (herbaceous or small woody plants) would continue to foster bank erosion.

Caltrans' proposed Highway 53 improvement project will remove approximately one acre of riparian vegetation along the lower half-mile of Seigler Creek.

It appears that willows may spread throughout the marsh unless something is done to control them. This would have consequences for the fish and wildlife that use the marsh, as well as the visitors who come to view the birds there. Basically, creatures that favor willow thickets will benefit while those that

require open water or non-woody emergent vegetation will be harmed. Many species of fish and birds would be affected. The willows would also hamper the viewing of waterfowl and other aquatic birds in the marsh.

Proposed Mitigation

The policy section of the Resource Element proposes measures to protect riparian forests and oak woodlands and to use fire as a management tool. An additional vegetation-enhancement measure would be to plant valley oaks throughout the North Flat, but especially in and around the proposed campground.

The construction of boardwalk trails along portions of Cache Creek and in the natural preserve may prevent trampling of vegetation in some areas.

Caltrans proposes to partially mitigate the loss of riparian habitat along lower Seigler Creek caused by the Highway 53 improvement project by improving 2.5 acres along Seigler Creek for riparian habitat and transferring the ownership to the department (see letter from Caltrans in Appendix D).

The department should closely monitor changes that occur in the marsh. Ultimately, in cooperation with the Redbud Audubon Society, the department should adopt a marsh management plan that, among other issues, deals with the spread of willows.

Discussion

Loss of plant cover along Cache Creek will not be a significant effect of the General Plan. There is a much greater potential for impact on the park's riparian vegetation, including valley oak forest and cottonwood-willow woodland, from the Corps of Engineers' channel enlargement project.

Under the proposed General Plan, unforeseen physical or biological changes (e.g., the spread of willows) might have adverse impacts on many species of fish and wildlife. If the marsh is regularly monitored and, if necessary, actively managed, these adverse effects can be avoided (see also the following section).

• Wildlife and Threatened/ Endangered Species

Existing Conditions

The existing wildlife conditions are described in the Resource Element. Three threatened or endangered species of bird occur in the park or have been seen there in recent years. These are the bald eagle, the American peregrine falcon, and the California yellow-billed cuckoo. Only the bald eagle is known to regularly occur in the park at this time. It congregates

around the marsh during the winter to feed on abundant fish and fowl.

A peregrine falcon was sighted at the marsh in 1984. Peregrines favor wetlands as rich hunting grounds. There is reason to believe that peregrines pass through the marsh on a regular but infrequent basis.

A yellow-billed cuckoo was last sighted in what is now the park over 10 years ago. Enough dense riparian vegetation probably remains in the park to support cuckoos, although most of it is along Cache Creek where boats frequently pass close by.

Impacts

Nothing proposed in the General Plan is likely to affect the endangered species that use the park. If willows continue to spread in the marsh, however, the marsh could decline as favorable habitat for bald eagles and improve as habitat for yellow-billed cuckoos.

Caltrans' proposed Highway 53 improvement project will impact wildlife by removing riparian habitat (see Vegetation section, above).

Proposed Mitigation

A policy to manage willows in the marsh may be necessary and desirable (see Vegetation, above). If this is done, there will be no significant affect to threatened/endangered species.

Caltrans will mitigate the loss of riparian habitat along Seigler Creek (see Vegetation, above).

• Noise

Existing Conditions

Anderson Marsh SHP is not a quiet wilderness park. It is, instead, an open, undeveloped area in the midst of a developing urban/suburban complex. Sources of noise in the park are vehicle traffic on Highway 53, small airplanes from Pearce Field, motorboats on Cache Creek, and various urban noises from the adjacent part of the City of Clearlake and the community of Lower Lake. The areas of the park most impacted by noise are the ranch complex (Highway 53), Cache Creek, Slater Island, and the North Flat (motorboats and the City of Clearlake). All parts of the park are affected by airplanes from Pearce Field.

Part of the ranch house at Anderson Ranch is within 100 feet of the Highway 53 roadway. At this distance, it should be subject to a highway noise of about L(dn)=65 (Swing, 1975). L(dn), or Day-

Night Sound Level, is the A-weighted equivalent sound level for a 24-hour period with an additional 10 dB weighting imposed on the equivalent sound levels occurring during nighttime hours (10PM to 7AM). Typical rural ambient noise levels are in the 35 to 45 dBA range. Sound levels in urban/suburban residential areas average about L(dn) 50 to 65. In outdoor locations with ambient sound levels of 60 dBA, there is some interference with normal conversation between people standing 6 feet from each other (EPA, 1978).

Little noise is generated within the park. Normally, there are few visitors in the park: most of the estimated 11,000 annual visits were associated with special activities such as the Blackberry Festival and the Archeological Summer Field School. Even these events are relatively quiet affairs devoid of noise stimulants such as amplified rock music. A public address system is used at the ranch complex for some special events so that announcements and addresses can be heard above the highway noise.

Impacts

Except for the relatively limited construction activity called for in the General Plan, the only new source of noise of any importance will be the proposed campground. As the campground would probably be no less than 150 feet from the park boundary, the impact of campground noise will be mainly on campers. Noise levels in park campgrounds when occupied are similar to those in suburban residential areas.

With completion of the proposed Highway 53 freeway, the highway will be realigned closer to the southern park boundary. This will increase the exposure of the southern part of Lewis Ridge, including the Pomo Village, to annoying road noise. Caltrans does not expect the highway project to increase road noise levels at the ranch complex. (Department of Parks and Recreation staff is not wholly in accord with this forecast.)

Proposed Mitigation

Noise rules are posted and control is provided by state park rangers (see Appendix E for regulations). Because staff shortages have developed throughout the State Park System in recent years, it has often been up to campground visitors to enforce the park rules, particularly at night. In these cases, officers from the county sheriff's department are sometimes called to settle noise disputes. Thus, unless greater enforcement becomes available than at present, there would be occasions when visitors at the proposed campground would be subject to annoying levels of noise from other campers.

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Part of the ranch house at Anderson Ranch is within 100 feet of the Highway 53 roadway. At this distance, it should be subject to a highway noise of about L(dn)=65 (Swing, 1975). L(dn), or Day-

The department would like Caltrans to further examine project highway noise levels at the ranch complex before rejecting the building of a sound wall as a 4(f) mitigation for the Highway 53 improvement project.

- **Light/Glare**

Existing Conditions

Most of the park is undeveloped open space. Cars parked at the ranch complex and on the North Flat can be a source of glare.

Impacts

Moving existing visitor parking out of the center of the ranch complex and relocating it where there are no shade trees could increase glare. Vehicles at the proposed campground could also add glare. Lighting and camp lanterns at the proposed campground would add to the amount of night light sources in the local area.

Proposed Mitigation

Native trees and shrubs should be planted in the proposed visitor center/ranch complex parking area and at the proposed campground to shade the cars and screen them from view. Area lighting at the campground should be limited to the minimum required for safety, and the lamp fixtures should be shaded from the side and top. These measures would effectively mitigate the effects of both the glare and the nighttime lighting sources.

- **Traffic**

Existing Conditions

Access - There are two ways to enter the park by road: the Anderson Ranch complex is reached by a short driveway off Highway 53; the North Flat is reached by taking the Old State Highway from Highway 53 and entering on Lakeview Way. The Old State Highway is a city arterial or collector street while Lakeview Way is a residential street within the City of Clearlake until it enters the park.

Traffic Flow/Safety - Highway 53 is a two-lane highway, which is now congested most of the time. The 1986 average daily traffic estimate for the segment of highway through the park is 13,400 vehicles. During high-use periods, traffic flow is unstable and slow (Caltrans 1987). The accident rate for this stretch of highway is 2.2 accidents/mile, compared with a statewide average of 1.2 accidents/mile for similar two-lane conventional highways (Caltrans 1987).

There are no lane provisions for entering or exiting the highway from the ranch area, which increases highway congestion and accidents. Northbound vehicles entering the park must slow down (to about 5 to 10 mph) or stop before exiting the highway, adding to traffic congestion. Those entering the highway from the ranch must wait for an opening in traffic large enough to allow entering the proper lane and accelerating to a safe speed. If they are headed north, they must wait for openings in both lanes. Often, vehicles entering the highway from the ranch complex cause oncoming vehicles to brake to avoid a collision. There have been at least two collisions at this intersection in the past two years (personal communication, DPR district superintendant).

The intersection of Highway 53 and Old State Highway, used by most visitors to the North Flat, has left turn, acceleration, and deceleration lanes. This intersection does not have a history of accidents and is considered safe by Caltrans.

Park-Related Traffic - The estimated number of park visitors in fiscal year 1985-86 was 11,000, arriving in an estimated 3,438 vehicles. Most visitation occurred weekends between April and November (see Table A for visitor data). Visitation peaks around midday, with the greatest number arriving at midmorning and leaving from mid to late-afternoon. Normally, few people visit the park on weekdays. Conflict between park traffic and the general traffic on Highway 53 is reduced because the peaks occur on different days and at different times.

Special Events - At the ranch complex, there is parking space for about 30 vehicles, with overflow parking for about 300 vehicles on the flat south and west of the barns. At full occupancy and with an average 2.4 daily turnover rate, the maximum vehicles to be accommodated at the ranch complex per day is 792 (330 spaces X 2.4 turnover factor), or 1,584 trip-ends both ways. At the 1985 Blackberry Festival, approximately 2,000 people visited the ranch in a single day. Assuming an average of 3.2 persons/vehicle, about 625 vehicles entered and left the ranch that day between 10AM and 4PM (special event hours), an average of 208 vehicles per hour or 3.5 vehicles per minute.

Park staff has attempted to alleviate the traffic safety problem at the ranch during special events by directing all departing vehicles southward. To go north, vehicles then must travel at least a mile south to Lower Lake in order to turn around. To some extent, this tactic may merely shift the hazard to a different location - i.e., a turnaround spot in Lower Lake.

Impacts

The principal traffic/circulation impact of proposed General Plan development will be to increase the number of vehicles

entering and exiting Highway 53 at the ranch. This increase will in turn increase the traffic flow and safety operations problems of that segment of highway.

The extent of the impact depends on the growth of both park visitation and traffic on Highway 53. Caltrans projects a 2.8-fold increase in traffic volume by the year 2010. The visitation growth rate at the ranch is difficult to predict, but there is no question that new and improved visitor facilities will bring more people on a daily basis. Increased school field trips and other interpretive programs will also add to the number of people visiting the ranch on weekdays.

Currently, most of the visitors come for special events (Table A shows visitor attendance during special events). As the park develops, more special events may be added.

Table A
1984-1986 Visitor Attendance
Anderson Marsh State Historic Park

	1984		1985		1986	
Month	Month	Big Day	Month	Big Day	Month	Big Day
Jan	388	--	220	--	257	32
Feb	461	--	473	--	342	11
Mar	932	--	198	--	579	138
Apr	534	--	560	--	648	70
May	841	--	525	--	1443	135
Jun	556	--	647	--	812	86
Jul	447	--	704	62	1030	97
Aug	335	--	2553	2000	1587	486
Sep	259	--	711	192	620	124
Oct	996	--	1731	751	1564	1000
Nov	529	--	969	254	1079	266
Dec	191	--	431	76	944	283
Total	**6499**		**9722**	**3335**	**10905**	**2728**

Current List of Special Events

February	Tea and Musicale at the Ranch
May	Native American Cultural Day at the Pomo Village
August	Blackberry Festival at the Ranch
October	Heritage Day at the Ranch
December	Christmas Open House at the Ranch

Proposed Mitigation

Immediate Measures: Traffic control signs could be posted on the highway to warn approaching motorists of the intersection and prohibiting left turns from the northbound lane. (These would require Caltrans' approval.) A sign prohibiting left turns could be posted on the ranch driveway.

Short-term measures: A left-turn lane and acceleration and deceleration lanes should be installed as part of the first phase of Caltrans' proposed highway-widening project. Caltrans' preferred alternative for the project (Alternative G) calls for a continuous center lane from Lower Lake to a point opposite the ranch. This center lane would serve as a left-turn lane into the park and as an acceleration lane for northbound vehicles leaving the park.

Long-term measures: Caltrans proposes to upgrade this section of the highway to a freeway which would bypass Lower Lake and eliminate unsafe intersections such as the park entrance (Alternative H). According to preliminary plans, there would be a freeway exchange about one-third mile south of the ranch with a frontage road leading to the ranch headquarters. If built, this design would eliminate any remaining access and safety problems for the park entrance. This freeway project is at best 10 to 15 years from completion.

Discussion

The recommended immediate mitigation measures would mitigate only some of the traffic and safety problems at the ranch entrance. Perhaps the most important of these measures would be signs alerting oncoming motorists to be on the lookout for slow or stopped vehicles. Signs prohibiting left turns for vehicles entering and leaving the ranch would help inasmuch as they are observed. Many motorists would probably ignore the no-turn signs, however, except during special events when people are stationed at the entrance to direct traffic.

The recommended intermediate and long-term measures are included in Caltrans proposals for improvement of this stretch of highway. The long-term measures would completely mitigate the congestion and safety problems at the ranch entrance. The intermediate measures would reduce most of the congestion problem. However, an adequate acceleration lane for vehicles going south is not part of the Caltrans proposal, and a safety hazard would still exist for vehicles exiting the ranch complex.

• Air Quality

Existing Conditions

Lake County air quality is good. The only pollutants monitored

in the Lake County Air Basin are ozone and particulates. All levels recorded to date have been within state and federal standards.

Park-related sources of pollutant emissions are motor vehicles and wood fires.

Impacts

Greater visitation will increase the amount of motor vehicle emissions attributable to the park. The number of park-related trips will be too low, however, to have a significant effect on air quality within the basin.

Prescribed burning of vegetation may occur under the General Plan which will generate smoke (particulate matter and other pollutants).

Proposed Mitigations

No mitigations are proposed for motor vehicle emissions. As for prescribed burns, a permit will be required from the Lake County Air Quality Management District prior to initiating a burn. This step will reduce the potential impact of smoke from a prescribed burn on nearby residences, highways, and other areas.

• Water and Sewage/ Wastewater

Existing Conditions

Potable well water is available at the ranch house. The water has been tested and it meets the primary and secondary state standards. A chlorinating unit has been added to the system.

Chemical toilets for park visitors are located at the North Flat parking area and at the ranch complex. The ranch house has a full bathroom connected to a regional sewer line.

Impacts

The General Plan calls for new visitor restroom facilities with flush toilets at the ranch and visitor center, composting or chemical toilets at the Pomo Village, full restroom facilities including showers at the North Flat campground, and chemical toilets at the North Flat/Cache Creek day-use area. The proposed new facilities at the ranch complex/visitor center and at the North Flat (including the residence and maintenance yard) will create an additional demand for both potable water and wastewater treatment.

Proposed Mitigation

The visitor center may be added to the existing ranch house well or to a new well, or connect to the Lower Lake County Water Works District 1 main line. The campground and staff residence/maintenance area will hook up to the Highlands Water Company's system.

The visitor center facilities will be hooked up to the Lake County Special District's sewer main, which passes within a few feet east of the ranch house. The campground and residence/ maintenance area would be hooked up to a City of Clearlake sewer line in the nearby residential area. Both systems are designed to handle future development and are capable of accepting new hookups for the foreseeable future.

• Cultural Resources

Existing Conditions

See the Resource Element.

Impacts

Ongoing adverse impacts to cultural features (primarily archeological features) in the park are described in the policy section of the Resource Element. Generally, implementation of the General Plan will impact the park's archeological resources by allowing continuation of existing patterns of use. The impacts include: damage throughout the park by visitors trampling sites and collecting surface artifacts; erosion where a park road cuts through a site on Lewis Ridge; damage of sites along Cache Creek from wave action caused by boats and from periodic channel dredging; and various activities, such as the channelization of Molesworth Creek, that have been disturbing a large village site on the North Flat.

Proposed Mitigation

Mitigation measures are proposed in the policy section of the Resource Element. These include stabilization of eroding sites, professionally directed collection of surface artifacts, and mapping and capping of sites. The General Plan proposes that a cultural resources plan be prepared to direct all activities for managing the park's archeological and Native American resources. The plan would develop specific measures for all the adverse impacts to archeological resources discussed in the General Plan.

With the above mitigation measures, there will be no significant impacts on the park's cultural resources as a result of the proposed General Plan.

- **Additional Projects**

Two major public works projects that will impact Anderson Marsh State Historic Park and its resources are the Caltrans Highway 53 improvement project and the Corps of Engineer's Clear Lake Outlet Channel enlargement project. Both have been discussed to some extent in this General Plan. The Highway 53 project is closest to reality, with a projected 1990 start date. The Department of Parks and Recreation has been negotiating with Caltrans over issues of project design and mitigation of losses to park resources. Caltrans has recently circulated a draft environmental document for the project. At this time, the unresolved issue is DPR's desire that Caltrans construct a sound wall between the highway and the ranch complex.

The Clear Lake Outlet project is still in the initial design stage, and planning is not expected to be finished before 1991. Issues that will need to be addressed include impacts on the park's riparian habitat and cultural resources, impacts on recreational use of the park during and after construction, and disposition of the dredge tailings.

Effects Not Found to Be Significant

Should the proposed General Plan be carried out along with the mitigation measures recommended in the policy sections of the plan, there should not be significant adverse effects involving the following aspects of the local environment (as defined in the Initial Study Checklist, Appendix C): air quality, water supply and quality, ambient sound levels, light/glare levels, nonrenewable resources, risk of upset, population growth, housing, public services, energy, utilities, health, scenic quality, recreation, and cultural resources.

With additional mitigation measures recommended in the Environmental Impact Element, the proposed General Plan should not cause significant adverse effects on the following elements of the local environment: soil and geological features/hazards, plant life, wildlife and threatened/ endangered species, and traffic /circulation.

See the Initial Study Checklist (Appendix C) for further information.

Significant Effects That Cannot Be Avoided

There are no unavoidable significant environmental effects that would result from implementation of the proposed General Plan for Anderson Marsh State Historic Park.

Relationship Between Short-Term Uses and Long-Term Productivity

The long-term management of Anderson Marsh State Historic Park has been determined to a large extent by previous classification actions. About 62 percent of the park was classified a natural preserve, including portions of the approximate 40 percent of the park designated the primary historic zone. The specific purposes and restraints of these classifcations are found in the Resource Element. Basically, these classifcations require the protection of the primary natural and cultural resources found within the park. The park's archeological resources also receive protection from federal actions that placed the Anderson Marsh Archeological District on the National Register of Historic Places.

The General Plan, under which the park will be managed for both the short and long term, is consistent with these classifications. The Declaration of Purpose for the park briefly states this (see Resource Element).

In short, the General Plan is written to direct the short-term uses of the park's environment toward the protection and maintenance of the park's archeological resources and its terrestrial and wetland ecosystems. The plan would present these assets for public enjoyment to the extent that they may be retained.

Growth-Inducing Impacts

While providing scenic, educational, and recreational amenities to the people of Lake County and the rest of California, the development of Anderson Marsh State Historic Park under the proposed General Plan will not induce new growth in the area.

Cumulative Impacts

Growth of visitation to Anderson Marsh State Historic Park under the proposed General Plan will result in a small cumulative impact on traffic along Highway 53. If the highway improvements planned by Caltrans are built and the problem at the access point to the ranch is resolved (see previous Environmental Impacts and Mitigations: Traffic), the park-related traffic will not add significantly to traffic congestion and safety problems on Highway 53.

Alternatives

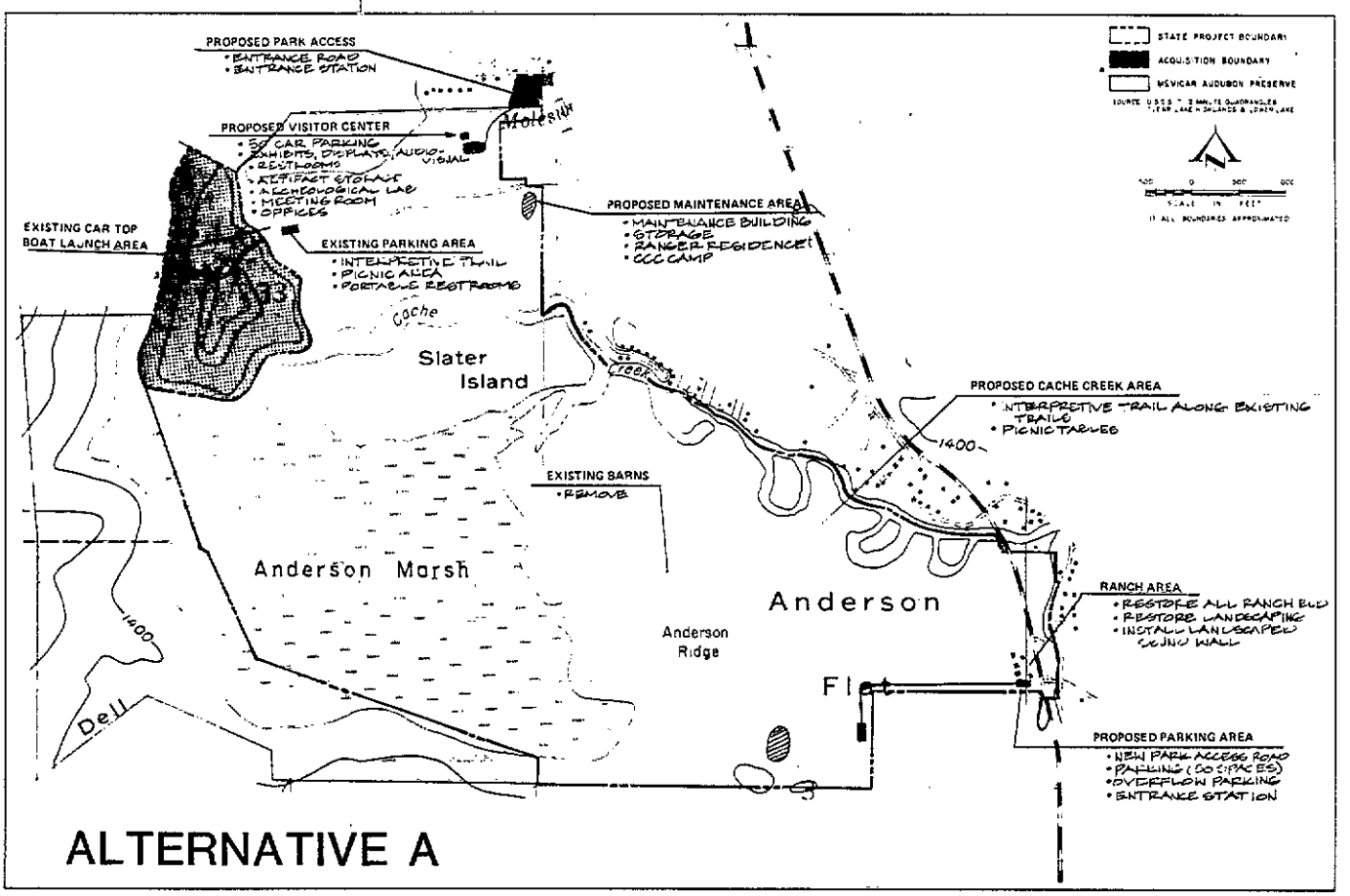
- **No Project**

In this alternative, there would be no new facilities or resource protection measures at the park. The "no project" alternative avoids the adverse environmental impacts associated with the proposed campground, and those effects caused simply by more intensive park use would also be less adverse, e.g.: trampling on vegetation, vandalism, traffic (at some locations), and noise. On the other hand, where the General Plan proposes to reduce or remedy an existing environmental problem (e.g., damage to cultural resources and the hazardous access point to the ranch complex), taking no action would result in more adverse impacts.

- **Alternative A - Less Development**

This alternative is the same as the Alternative A dsicussed in a General Plan workshop in Clearlake in 1986. It differs from Alternative B (the plan most similar to the General Plan) in the following ways:

No campground is proposed; the visitor center would be built at the North Flat rather than near the ranch complex. A new entrance road to the North Flat would be built as called for in the General Plan. At the North Flat/Cache Creek day-use area, there would be no boat-launch ramp or floating dock. No development would occur on Lewis Ridge.



ALTERNATIVE A

Impacts

As with the "no project" alternative, Alternative A would avoid those adverse impacts associated with the proposed campground. The visitor center would, however, generate traffic and some noise. The new entrance road would mitigate the impact of park traffic on the residential part of Lakeview Way. The proposed visitor center would be located at least 200 feet from the park boundary and opposite the nearby churches; at this location, noise impacts would be minimal. Finally, without the visitor center and developments on Lewis Ridge, fewer vehicles would be using the hazardous ranch complex access.

On the adverse side, the soils on the North Flat are rated by the Soil Conservation Service as having "severe constraints" for buildings because of low strength and flooding. And in addition to environmental factors, there are interpretive and operational reasons why the ranch area would be a better place for the visitor center.

Assuming that the resource protection policies proposed in the General Plan would also be part of Alternative A, it would appear to be the superior alternative from an environmental perspective.

- **Alternative C - More Development**

This alternative is the same as the Alternative C discussed in a General Plan workshop at Clearlake in 1986. It differs from the proposed General Plan in the following ways:

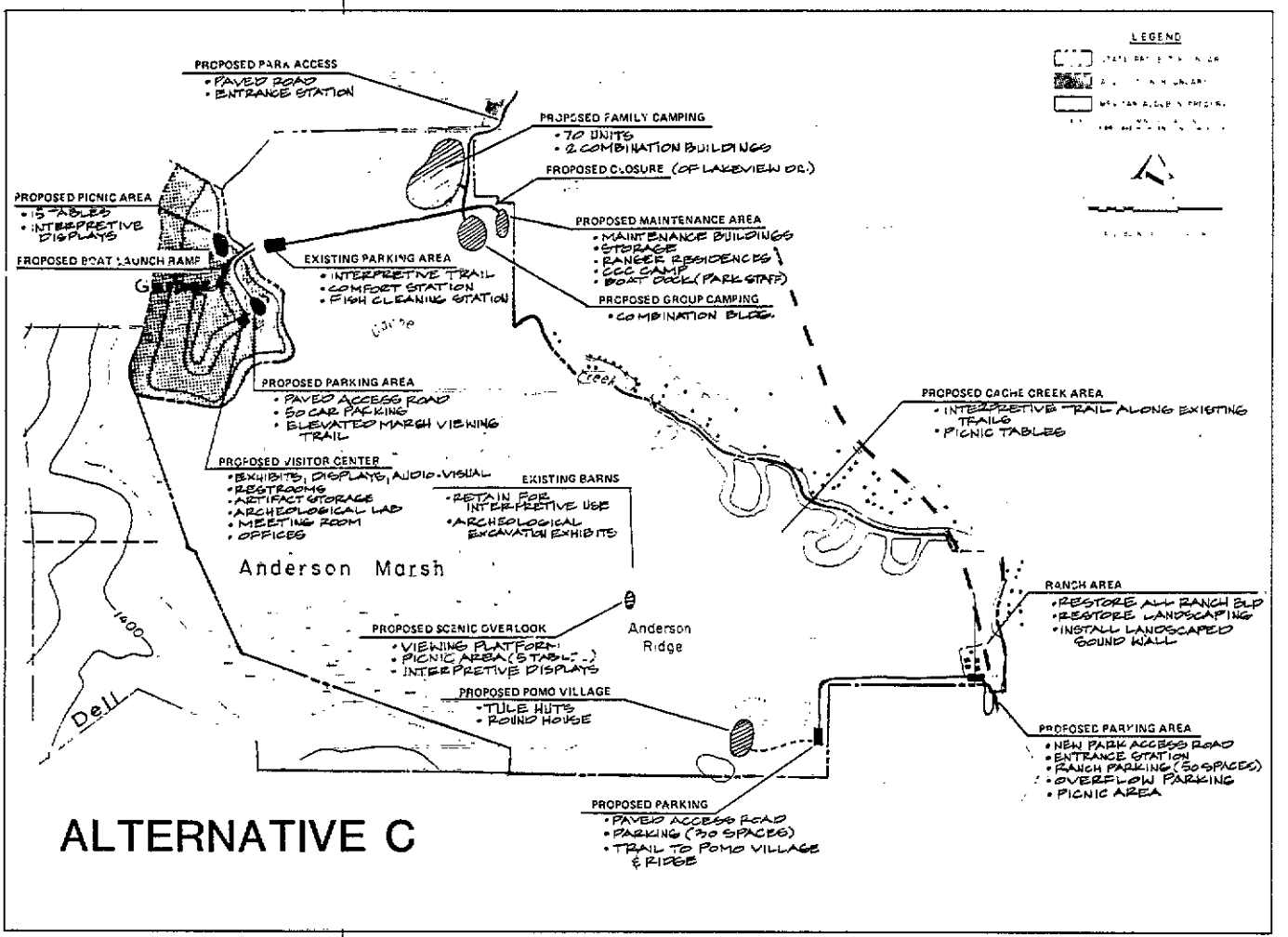
> At the North Flat, a 70-unit campground would be built (compared with 35-50 units in the proposed General Plan). A group campground would be put in, and the maintenance area would also contain a CCC barracks and a boat dock for department use. Garner Island would be acquired, the White Bridge would be replaced, and a visitor center, picnic area, parking lot, boat ramp, and elevated marsh-viewing trail would be built on the island. On Lewis Ridge, the barns would be retained, and a paved access road would be built to a parking area near the Pomo Village.

Impacts

The additional facilities on the North Flat and Garner Island would increase the traffic entering off Old State Highway. The bulk of the traffic increase would be on weekend days during spring and summer. Most special events would still take place at the ranch complex or the Pomo Village, so the traffic/safety problem at the access point to the ranch complex would not be greatly reduced. The larger campground would increase the likelihood of occasional noise impacts generated from within

the campground. The paved access road to the Pomo Village would bring more people and consequent impacts to Lewis Ridge.

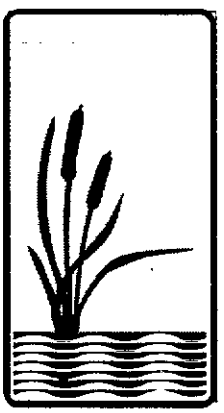
Alternative C appears to be the alternative with the greatest potential for adverse environmental impacts.



Organizations and Individuals Contacted in Preparation of the Environmental Impact Element

Anderson Marsh Interpretive Association - Mignon Perry
U.S. Army Corps of Engineers - Ken Myers
State of California:
- Department of Boating and Waterways - Jim DeBenedetti
- Department of Fish and Game, Region 3 - Allan Buckman
- Department of Health Services, Santa Rosa - B. David Clark
- Department of Transportation, District 1 - Bruce Miner, Burt Wythe
- Department of Water Resources - Jacob Angel
- Department of Parks and Recreation - Steve Hill, Larry Reid, Floyd Lemley, Gary Fregien, Syd Brown, Jill Vanneman
- Regional Water Quality Control Board, Central Valley Region - Edwin Crawford

Selected References



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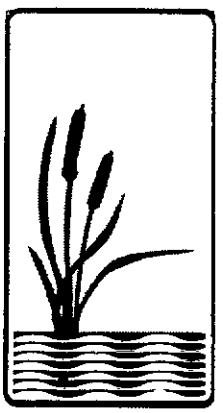
References for the Resource Element are included in the Anderson Marsh State Historic Park Resource Inventory on file with the Department of Parks and Recreation, Resource Protection Division, in Sacramento.

Appendices



Appendix A:

User Survey and Newsletters

User Survey

Anderson Marsh State Historic Park

State of California
The Resources Agency
Department of Parks and Recreation

The California Department of Parks and Recreation is developing long-range plans for the management of Anderson Marsh State Historic Park. As part of this process we would like to know more about the people who use this park and what needs to be done to improve the quality of your park experiences. Please complete this questionnaire and either return it to a park employee or mail it back to us. THANK YOU!

VISITOR PROFILE

1. How often have you visited Anderson Marsh ?
   - ☐ This is first visit
   - ☐ Several times a month
   - ☐ Several times a year
   - ☐ Never

2. What is your primary destination on this trip?
   - ☐ Clear Lake Area
   - ☐ Sonoma/Mendocino coast
   - ☐ Central Valley
   - ☐ Ukiah and further north
   - ☐ Santa Rosa and further south
   - ☐ Other _____

3. Where did you stay overnight? How many nights?____
   - ☐ Clear Lake State Park
   - ☐ Clear Lake Area
   - ☐ Other_____

4. What type of accommodation did you use?
   - ☐ Motel ☐ Tent ☐ RV
   - ☐ Bed & Breakfast ☐ Friend's Home

5. How did you arrive at Anderson Marsh ?
   - ☐ Car ☐ Bike ☐ On foot ☐ Bus
   - ☐ RV ☐ Boat ☐ Plane

6. How many people are in your party?

7. What is your zip code?

8. Your age?

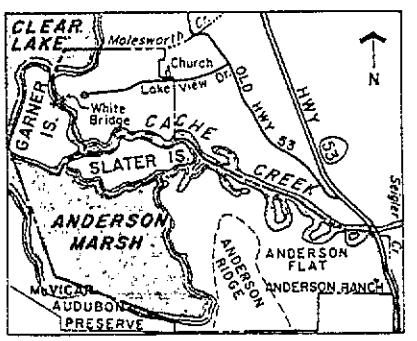
YOUR INTERESTS

9. Your primary interests are in...
   - ☐ Nature study and preservation of the wetlands
   - ☐ Native American and historical sites
   - ☐ Recreation activities (exercise, fishing, etc.)
   - ☐ Economic benefits to the community
   - ☐ Personal involvement (as a volunteer)
   - ☐ Concerned adjacent property owner
   - ☐ Government representative
     Agency:_____
   - ☐ Others _____

10. What do you think is special about Anderson Marsh SHP? (Use a scale of 1 to 10, with 1 being the best, etc.)
    - ____Quiet ____ Recreation opportunities
    - ____Nature ____ Ranching history
    - ____Weather ____ Opportunity for relaxing
    - ____Scenery ____ Native American archeological sites
    - ____Landscape
    - ____Others _____
    - ____ _____

11. What now are your three favorite activities or learning experiences at Anderson Marsh SHP?
    1.
    2.
    3.

12. What areas at Anderson Marsh do you visit now or would you be interested in visiting if accessible? Rate on a scale of 0-5, 0 being never, etc. Refer to map.
    - ____Anderson Ranch Complex
    - ____Anderson Ridge
    - ____Anderson Marsh
    - ____White Bridge
    - ____Seigler Creek
    - ____Cache Creek and its oxbows
    - ____Slater Island
    - ____Molesworth Creek
    - ____Flat adjacent to church
    - ____Clear Lake shoreline



13. Listed on the next page are some of the many opportunities availalble within other state parks. You can add other activities to this list. Then rate the five you would be most interested in doing at Anderson Marsh (1 is the most important, 2 the next most important, etc.)

____ Walking
____ Hiking
____ Jogging
____ Photography
____ Birdwatching
____ Nature study
____ Sightseeing
____ Boating
____ Fishing
____ Family picnicking
____ Group picnicking
____ Others _____
_____

____ Historic tours and special events
____ Archaeologic field study
____ Visiting a museum
____ Being a docent or park volunteer
____ Family camping
____ Group camping
____ Hike-in camping
____ Bike-in camping

14. When you visit Anderson Marsh do you want to be provided more information on:
- ☐ Natural features (wildlife, marsh, creek, etc.)
- ☐ Native American History
- ☐ Archaeology
- ☐ Ranching History
- ☐ The State Park System
- ☐ Orientation to the park
- ☐ No additional interpretation/info needed

15. How would you like to learn about Anderson Marsh? (Use a scale of 1 to 10, with one being of the most interest to you).
_____ Interpretive center or museum
_____ Interpretive trails
_____ Guided tours
_____ Lectures
_____ Slide shows/video
_____ Informational exhibits
_____ Brochures and other literature
_____ Living History Program
_____ Special programs for kids/students
_____ Demonstrations and special events
_____ Environmental Education Center
_____ Marsh wildlife viewing trail
_____ Others_____
_____ _____

YOUR CONCERNS

16. What is your general philosophy about the use of land at Anderson Marsh SHP?
- ☐ Minimum development, preserve and interpret the resources (entrance, parking, trails, interpretive panels)
- ☐ Leave the park the way it is
- ☐ Maximum development while preserving the resources (interpretive center, camping)

17. What detracts from your visit to Anderson Marsh SHP?
- ☐ Nothing
- ☐ Not enough visitor facilities
- ☐ Park too small
- ☐ Many areas inaccessible
- ☐ No sense of privacy
- ☐ Lack of developed parking
- ☐ Hours of operation
- ☐ Not enough recreation opportunities
- ☐ Others_____
- ☐ Traffic
- ☐ Vandalism
- ☐ Weather
- ☐ Litter
- ☐ Hard to get to
- ☐ Noise
- ☐ Highway 53
- ☐ _____

18. What is the single most important change or improvement, if any, you would like to see at Anderson Marsh?

19. What kind of place do you think Anderson Marsh SHP should be?

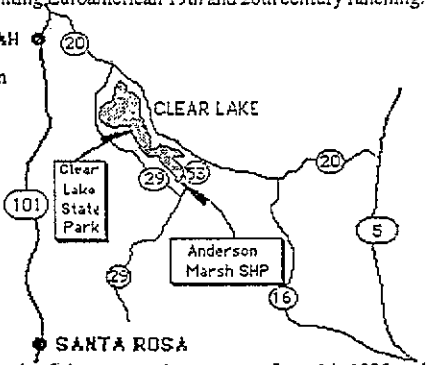
20. If you would like to be on our mailing list for future planning activities or for results of this survey, please provide your name and mailing address.
_____
_____
_____

Anderson Marsh State Historic Park...

is located in Lake County along Highway 53 at the southeast end of Clear Lake, at the lake's outlet into Cache Creek. The park contains about 3000 feet of lake shoreline as well as Cache Creek shoreline and a short stretch of riparian zone along Seigler Creek. Marshlands comprise about one-third of the park unit, which is relatively flat except for the oak-studded slopes of Anderson Ridge and Slater Island. In addition to the significant natural features including associated biotic communites, the park contains rich cultural resources. They reflect the human history at Anderson Marsh dating back more than 10,000 years, and include 27 recorded Native American archaeological sites and the remains of the Anderson Ranch representing Euroamerican 19th and 20th century ranching.

The park lies in the northern Coast Range Mountains between the coast and the Sacramento Valley, within the two-hour reach of several million people. Recreation demand in the Clear Lake area is high.

To date, about 872 acres have been acquired. Funding is available for acquisition of additional lands for inclusion in the park, bringing its potential size to about 942 acres.



Classification

Anderson Marsh was designated as a unit of the state park system on June 14, 1985 and was officially classified as a state historic park by the State Park and Recreation Commission. On the same date, the Commission established a 540-acre Anderson Marsh Natural Preserve within the park unit to recognize the oustanding natural values of the wetland area.

The state historic park classification provides the Department of Parks and Recreation with guidelines for development, management, and operation of this unit. Public Resources Code Section 5019.59 defines historical units as follows:

> Historical units consist of areas established primarily to preserve objects of historical, archaeological, and scientific interest, and archaeological 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. Upon approval by the Commission, lands outside the primary historic zone may be selected or acquired, developed, or operated to provide camping facilities within appropriate historical units. Upon approval by the State Park and Recreation 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 and developments retain or restore historical authenticity.

The General Plan

The California Department of Parks and Recreation is preparing a long-range master plan for Anderson Marsh State Historic Park. This General Plan will guide the management of the park's resources and development of facilities over the next fifteen to twenty years. The plan is made up of the following elements:

- The Resource Element evaluates the natural and cultural resources of the area, and sets the management policies for protection and use of these resources.
- The Interpretive Element describes proposals and programs for interpretation of natural and cultural features of the park.
- The Operations Element describes specific operational requirements unique to the park.
- The Land Use Element describes current and proposed land uses and relevant planning issues.
- The Concessions Element describes appropriate service facilities necessary to meet public demand.
- The Facilities Element describes existing and proposed facilities and programs.
- The Environmental Impact Element serves as the Environmental Impact Report required by the California Environmental Quality Act. It assesses environmental effects and changes, proposes mitigation measures and alternatives.

The Planning Process

Where we are...

- ☐ Step 1 Organizing the planning job
- ☒ Step 2 Gathering Information
- ☐ Step 3 Developing alternatives
- ☐ Step 4 Composing a single plan
- ☐ Step 5 CEQA review process
- ☐ Step 6 State Park and Recreation Commission Hearing of the plan

We need you...

to be part of the planning team, to give us your ideas, to help determine what kind of place this park should be. Our goal is to produce a general plan which will guide the management of the park's resources and development of its facilities.

At our first meeting we need your help in identifying issues and concerns. Our staff will use this information to develop several alternative plans to be presented to you at a second public workshop. There you will be asked to review the alternatives and help formulate a single plan. Our staff will then prepare the General Plan document that will be submitted to the State Park and Recreation Commission in Fall 1987.

This is your park.

Come share your ideas for planning it for your enjoyment and that of future generations. Our first public meeting is scheduled for:

Thursday June 12, 1986 7-10P.M.
Church of Jesus Christ of Latter Day Saints
Lake View Way
Clearlake, California

Any comments or questions about the planning effort can be sent to the attention of the Project Manager, Jill Vanneman, or call us at (916) 323-4269. We look forward to working with you!

The Anderson Marsh State Historic Park Planning Team

The Anderson Marsh State Historic Park Planning Team
California Department of Parks and Recreation
Box 942896
Sacramento, California 94296-001

Newsletter

Number 2

Anderson Marsh State Historic Park

For those of you who are receiving our newsletter for the first time, the California Department of Parks and Recreation is now preparing a comprehensive general plan to guide the use and managment of Anderson Marsh for years to come. On June 12, we held the first in a series of general plan public involvement meetings; a user survey has been in distribution at the park since early June. The purpose of this newsletter is three-fold. First, we want you to know what happened at our first public meeting and to inform you of the issues, concerns, and suggestions that came out of the meeting and from the letters we have received from the public. Second, we want to let you know the preliminary results of the user survey, and third, keep you informed about the progress of the planning process.

The June 12 Public Meeting

About 45 people attended the June 12 workshop and we would like to thank each of you for your participation and your ideas about Anderson Marsh. The meeting began with a brief history of the park, its acquisition and classification, and existing facilities and uses. The purpose and content of the general plan was explained along with the planning process and the role of public involvement in developing a general plan. A brief presentation of the draft Resource Element, highlighting the significant cultural and natural resources of the park, included the policies recommended by the Departmental staff for protection and management of these resources. (The draft Resource Element is available for public review at local Clear Lake libraries, at the park and the Clear Lake District Office). Following a question-and-answer period, workshop participants formed seven separate working groups; these groups spent about 90 minutes discussing park issues related to camping, picnicking and hiking use, preservation and interpretation, fishing, swimming and boating use, the need for acquisition of additional park land, adjacent land uses and many other concerns.

Here's a summary of comments made by workshop participants and those who have written to us:

Camping, Picnicking and Hiking

No camping.
Limited camping in limited area with suitable access.
Permanent camping facilities needed for field school with kitchen and showers.
Special use camping by permit only.
Camping in northern section of park.
Group camping should be provided.
Encourage private interests to develop camping in adjacent communities.
Day use activities are not satisfactory.
Develop picnicking in northern section, Seigler Creek, at White Bridge, and improve picnic facilities near ranch house.
Better facilities for picnicking.
Picnicking should not include barbecue facilities.
Need well-developed and maintained hiking trails.
Trails for the blind and handicapped.
Develop a nature trail along creek and in marsh.
Need benches on trails.
Need self-guided and conducted interpretive hiking loop trail.
Need trails with (marsh) overlook sites, and interpretive signs and markers.
Develop clearly marked trails with interpretive panels away from the shoreline.
Develop physical conditioning trails.

Fishing, Swimming, and Boating

No designated swimming areas unless in the north area with camping.
Bank fishing in the north sector only.
Fishing information display, restrooms, parking, trails, trash cans, etc. should be provided near White Bridge.
Develop elevated wooden walkways and fishing platforms along the creekside in the north portion of the park.
Swimming and fishing should remain undeveloped.
No fishing, swimming or boating in the marsh.
Limit area for fishing.

No additional facilities.
No water-skiing in park.
Pontoon boats by permit only in the marsh.
State should provide rowboats or canoes.
Sensitive, quiet-water navigation is all that is approriate.
Canoes on a limited basis and at specific times.
Provide slow pontoon boat tours operated by the park or concession to tour Cache Creek and marsh.

Preservation and Interpretation

Pictorial museum at ranch house of the 1800's.
Historic landscaping around the ranch house.
Indian museum and aritfact displays at Garner Island.
Living History Indian Village to include picnicking and featuring Indian food, Round House, sweat lodge, cook shack and tule dwellings. Locate a visitor/interpretive center with auditorium near the ranch house. Auditorium for Pomo Indian cultural events and simulated Indian Dance House.
Develop an interpretive center away from the ranch house.
European and Pomo living history programs and museum in the barn on the ridge.
Need an archaeological museum and artifact display .
Need a walk-thru, covered shelter showing a typical archaeological excavation.
Locate a Native American village, "Winter Village", in area already designated.
Have an annual Native American/Living History event.
Use the Anderson Ranch House as a living museum.
Historical displays in ranch and barns.
Separate buildings for natural history and archaeology.
Develop a Northern California or Regional DPR archaeological center.
Restore and refurnish the ranch house.
Keep all present structures, including corrals and weigh scale for use in interpretive programs.
Food should be an integral part of interpretive programs.
Antique autos should be on display during one event.
Develop a regional cultural and natural history center with display area, archeology lab and storage area, public meeting room and outdoor public gathering area near main parking areas, preferably in the southern portion of the park.
Develop an environmental living program for children.

Acquisition

Acquire Garner Island.
Develop a museum on poles with observation deck on Garner Island.
No access to Garner Island. Remove the bridge. Keep the island for the birds.
Use Garner Island as a nature preserve and for day use.
Develop elevated walkways and marsh overlook on Garner Island.
Acquire Indian Island for its Native American religious significance.
New access to the north is vital!
Acquire the Lyon property for a visitor center.
Buy Bandlow's for access

Adjacent Land Uses

Establish a green belt to screen out noise and incompatible sights.
Build a sound wall.
Require an EIR for any commercial development next to park property.
Move freeway east and leave Highway 53 alone.
Develop watchdog groups. Enlist aid of appropriate state personnel.
No commercial enterprises adjacent to park; allow only single-family residential.

Other Issues

The natural resources must not be totally subordinated to the cultural uses.
Pay attention to possiblity of over-impact by educational activities.
Keep the barns on the ridge.
Need some form of transportation for seniors and handicapped to get to the ridge.
Develop new or improved vehicle access to parking from Highway 53.
Parking should be away from the park and shuttle buses used for transportation.
Make all parts of the park accessible to the public.
Slater Island should be off-limits to the public because of sensitive resources.
Limit recreational use of the park.
Develop adequate sanitary facilities.
Increase park staff.
Park merits a resident archaeologist and interpreter.
Need expert regional management consultant.
Hire a qualified person for maintenance and pruning of the blackberries.
Rangers should not be exempt from following the general plan.
Park should be open 6 or 7 days.
Procure and reinstall the iron bridge.
Develop a community park in the Seigler Creek area.
Develop a park office and maintenance/shop complex in the north portion of the park, and a ranger residence at Bandlow's Trailer Park.
No public concessions.
Develop a baitshop and hot-dog stand operated by concession in the north sector of the park.
Have canoe and horse rentals.
Grant CHC concession status for continuation of field school and archaeological work.
Field school needs annual state funding aid.
Name a building after John Parker.
Manage undesirable vegetation at marsh edge and on Anderson Flat.
Develop an ethnobotanical garden.
Develop sedge and willow beds for Native American basketry.
Develop a Native American reburial site at the park.
Reconstruct a Native American village with involvement of local Pomos.
Encourage more Native Americans to get involved.
Resolve the flooding problem.

User Survey

The user survey is still in distribution and these findings are only preliminary. The percentage for each question does not always total 100 because: 1) on some questions it was appropriate to check more than one answer, and 2) some respondents did not answer each question.

Respondent Profile

How often have you visited Anderson Marsh?
First time=22%, several times/month=13%, several times/year=60%, never=6%.

What is your primary destination on this trip?
Clearlake area=82%, Sonoma/Mendocino Coast=6%, Central Valley=3%, Santa Rosa and south=3%, other=6%.

Where did you stay overnight?
Clearlake area=72%, other=28%.

What type of accommodation did you use?
Motel=9%, tent=6%, friend's home=22%, own home=63%.

How did you arrive at Anderson Marsh SHP?
Car=81%, plane and car=3%, boat and foot=3%.

How many people in your party?
One=6%, Two=25%, Three=13%, Four=19%, Five or more=6%.

What is your zip code?
Sacramento area=3%, Bay area=13%, So. Calif.=3%, Napa/Santa Rosa area=19%, Local=62%.

Your age?
25-34=7%, 35-44=22%, 45-54=19%, 55+=41%.

Interests

Your primary interests are in:
75% Native American and historical sites
72%Nature study and preservation of the wetlands
32% Recreation
25%Personal involvement as a park volunteer
13% Concerned adjacent property owner
6% Economic benefits
3% Government representative
6% Others

What do you think is special about this park (on a scale of 1-10, with 1 being the best)?
Weighted average score: Native American archaeological sites (3.4), nature (3.5), scenery (5.8), ranching history (5.8), quiet (6.0), opportunity for relaxing (6.3), landscape (6.9), weather (7.7), recreation opportunities (7.8).

What are your three favorite activities or learning experiences at the park?
These categories emerged:
Archaeological sites/study=41%
Birdwatching=38%
Nature/plant study and observation=34%
Trails/walking/hiking=28%
Ranch and ranch history =25%
Special events and activities=22%
History of the area=9%. Also mentioned were fishing, being a docent, and resting (3% each).

What is your interest in visiting the following locations at the park (on a scale of 0-5, 0 being never)?
Anderson Marsh (3.4), Anderson Ranch (3.1), Anderson Ridge (2.9), Cache Creek and oxbows (2.8), Clear Lake shoreline (1.9), Slater Island (1.9), White Bridge (1.7), Molesworth Creek (1.1), Seigler Creek (1.0), Flat adjacent to church (.9).

Rank the five activities you are most interested in doing at the park (1 being the most important to you).
The following were the eight most popular activities. (The first number reflects the percentage of people who indicated interest in the activity; the second number is the weighted average score).
Historic tours and special events=75% (3.4), nature study=69% (3.4), archaeologic field study =66% (3.4), birdwatching=56% (3.4), walking=50% (3.9), hiking=50% (4.1), visiting a museum = 47% (4.1), photography=41% (4.4), sightseeing =31% (4.8).

What do you want more information about when you visit ? Natural features=75%, Native American history=75%, archaeology=69%, ranching history =50%, park orientation=38%, state park system =25%, no additional info or interpretation=3%.

Rate these interpretive methods as ways of learning about the park (on a scale of 1-10, with 1 being most preferred). Average weighted score: Interpretive center/museum (3.8), interpretive trails (3.7), marsh wildlife viewing trail (4.1), informational exhibits (5.5), living history program (5.6), slide shows/video (6.0), brochures (6.5), guided tours (6.6), environmental education center (6.7), special programs for kids (7.1), lectures (7.5), demonstrations and special events (7.5).

What detracts from your visit?
Hours of operation=50%, not enough visitor facilities=41%, Highway 53=31%, many areas inaccessible=22%, no developed parking =22%, traffic=16%, noise=16%, park too small=13%, hard to get to=9%, weather=6%, vandalism =9%, nothing=16%, others=21% (Specified were: rattlesnakes, airplanes, stickers, locked gates).

The User Survey

Your Concerns

What is your general philosophy about the use of land at the park?
Minimum development=63%, leave the park the way it is=3%, maximum development=34%.

What is the single most important change or improvement you would like to see at Anderson Marsh?
Interpretive center/museum=16%, ranch complex restoration=13%, new and improved trails=16%, improved picnic facilites=9%, living history program at the ranch=9%. Other responses included: expansion of park boundaries, extension of parkoperating days and hours, more paid staff, elimination of rattlesnakes, road improvements, development of limited camping.

What kind of place do you think the park should be?
"A quiet, reflective place, a contrast to Clear Lake shoreline".
"A natural place with marked, maintained trails".
"As is. No camping, boating, biking or horseback."
"A fishing area."
"An open space for environmental education, Native American and Lower Lake ranch history."
"A learning experience for young children."
"A wildlife sanctuary and living history ranch and archaeological preserve."
"A place for learning and appreciation of the past".
"A place that reflects the gracious era of farm life".
"Minimal camping and recreational facilities with more emphasis on wildlife preservation."

Our Next Meeting

The results of the user survey and first workshop will greatly help us. The planning team is now developing alternatives based on what we have heard from you as well as the statewide needs analysis, and the analysis of the resources. These alternatives will be presented for your evaluation and discussion at the next public workshop to be held:

Saturday, September 13, 1986, at the Anderson Ranch barn, located off Highway 53,10am-1pm

If you want to communicate with us before then, write (see the return address below) or call us, (916) 323-4269.

"Anderson Marsh should be a place for learning and appreciation of the past."

The Planning Process

Where we are...

- ☐ Step 1 Organizing the Planning Job
- ☐ Step 2 Gathering Information
- ■ Step 3 Developing Alternatives
- ☐ Step 4 Composing a Single Plan
- ☐ Step 5 CEQA Review Process
- ☐ Step 6 State Park Commission Hearing

The Anderson Marsh State Historic Park Planning Team
California Department of Parks and Recreation
P.O. Box 942896
Sacramento, California 94296-0001

Newsletter 3

Newsletter

Number 3

Anderson Marsh State Historic Park

General Plan Update

This past May, when we started contacting the public about planning for Anderson Marsh State Historic Park, we promised those of you responding to our user survey or attending our workshops that we would keep you informed of our progress on a regular basis. This is our third newsletter and with it we want to share with you the public input received at our last workshop in September.

To bring those of you who weren't able to attend the workshops up to date, during June we held a public meeting in Clearlake. Over 40 people took part in the workshop and gave us their thoughts on the future of the park. Between June and September a user survey was distributed at the park. The 42 responses we received were tabulated and reported in our last newsletter as well as the issues, concerns and suggestions heard at our first meeting in June.

Following the first meeting, the planning team studied and categorized the ideas we heard. In addition we considered comments we received by mail from people who were unable to attend the meeting. We then prepared alternative plans to enable visitors to enjoy Anderson Marsh State Historic Park without damaging the natural, cultural, and historical park resources. Each of these alternatives was based on our concerns for preserving and protecting the park's resources and on information collected during the workshop, from the user survey, through discussion, from letters, and from statewide recreation needs.

We presented the alternatives at the last workshop held in September and asked those attending for their help in evaluating the alternatives. Working in small groups, the participants assessed various land-use and facilities options, made some of their own recommendations, and created a plan which the group felt to be the best plan for development of facilities and use of the park. We have summarized the plans developed by the four groups in this newsletter.

Following the last workshop we attempted to resolve the sometimes conflicting recommendations made by the group plans and put together a draft land use and facilities plan, containing what the planning team believes to be the most feasible plan for the management and use of the park. The draft land use and facilities plan is outlined here, beginning on page 3.

After hearing public comment on the land use and facilities plan at our next public meeting January 8, the planning team will put all of the elements of the plan together into a draft general plan. The draft general plan will be available for public review and comment in June 1987 and will be presented to the Park and Recreation Commission for approval in September 1987. ■

Upcoming Public Meeting

Our next public meeting will be held :

Thursday January 8, 1987 7P.M.
Church of Jesus Christ
of Latter Day Saints
Lake View Way Clearlake

At this meeting the planning team will present the single plan to be included in the Land Use and Facilities Element of the draft General Plan. The purpose of the meeting is to hear public comment on this plan before completing the written draft General Plan (which will be printed for public distribution, review and comment at the end of May 1987).

September Workshop Results

The planning team presented three alternative park development plans for public evaluation at the last public meeting held in September. Workshop participants divided into four groups of 8-10 people each. Each of the four groups developed its own plan based on group consensus. They selected various options from the alternative plans presented by the planning team and in some cases, made their own land use and facilities recommendations. We have summarized their plans here.

Ranch Area

The plans developed by all of the groups for this area included restoration of ranch buildings and grounds; development of a new park access, entrance station, parking and visitor center south of the ranch area; installation of a landscaped sound wall. Group 2 felt that parking should be located west of the ranch barns rather than south.

The major differences concerned picnicking. All groups said the existing picnic facilities should be upgraded, but Groups 1 and 2 wanted to retain picnicking in the existing location next to the ranch house with a larger picnic facility added adjacent to the proposed new parking area. Group 3 wanted to develop extensive picnicking along Seigler Creek. Group 4 wanted just one picnic area, to be located in the present parking area under the trees in front of the ranch house.

In addition to these facilities , Group 2 proposed the development of a 60-person dormitory building with showers and kitchen for use by school groups and the archaeological field school.

Anderson Ridge Area

The plans of all four groups indicated reconstruction of a Pomo Village near the ridge connected by trail to the ranch area, and development of a scenic overlook along the ridge for viewing and interpretation of the marsh. Group 2 thought parking should be developed near the village site, with a paved road and parking area at the ridge barns, while Group 3 thought an unpaved road and limited parking for handicapped access only should be allowed near the village. Groups 1 and 4 were opposed to any parking near the ridge or village site. Groups 1, 2 and 3 thought the ridge barns should be adapted for interpretive or field school use. Group 4 felt that the question of removal, retention or relocation of the barns should be decided in consultation with the local Pomo.

Cache Creek Area

Currently, a trail is cut through grassy areas along the creek to provide a walking path during the dry season. Part of the year the area is marshy or inundated with water. Groups 3 and 4 were concerned that the area remains natural to protect resource values. Group 4 voted to retain the area as is with the addition of some interpretive signs. Group 2's plan proposed development of an elevated walkway with interpretive signs and small picnic areas along the trail. In addition, Group 2 proposed development of a small boat launch ramp and dock near the riffle (on property not owned by the Department). Groups 1 and 3 wanted to develop the seasonal trail into an interpretive trail with provision for overlooks, resting areas and benches, without any picnic areas. Group 3 suggested bridges to the islands.

White Bridge Area

Groups 1, 2 and 4 wanted to retain the existing parking area and car-top boat launch area with the addition of chemical toilets, a picnic area and trails. Group 1 wanted no fee. In additon, Group 4 wanted to prohibit motor boats from the natural preserve.

Group 3 wanted to improve the exisiting parking area with paving, the addition of a permanent restroom, fish-cleaning station, picnic area, small boat-launch ramp, and raised boardwalk trail along the periphery of the marsh and Cache Creek.

Garner Island

Group 4 recommended restoration of the wildlife habitat and further study before determining future use of the island. Groups 1, 2 and 3 felt a marsh viewing trail and viewing platforms were appropriate for the island. Groups 2 and 3 thought some picnic facilities for pedestrian or boat-in use would be nice. Group 3 recommended that any development or facilities in this area reflect the desires of the local Pomo.

North Flat Area

All of the groups favored establishment of an oak-woodland revegetation program on the north flat, opposed development of a visitor center in this area, and agreed that the north flat area would be an appropriate location for development of a park maintenance and staff housing area. (As an alternative, Groups 1 and 3

thought locations along Seigler Creek would be appropriate). Group 2 proposed placement of a bridge to Slater Island.

Group 1 opposed the development of any camping in this area. Group 2 favored development of traditional-type family and group camping. Group 3 favored low-density family camping and suggested limited small-group camping, while Group 4 suggested development of a small walk-in campground (but only after a revegetation program).

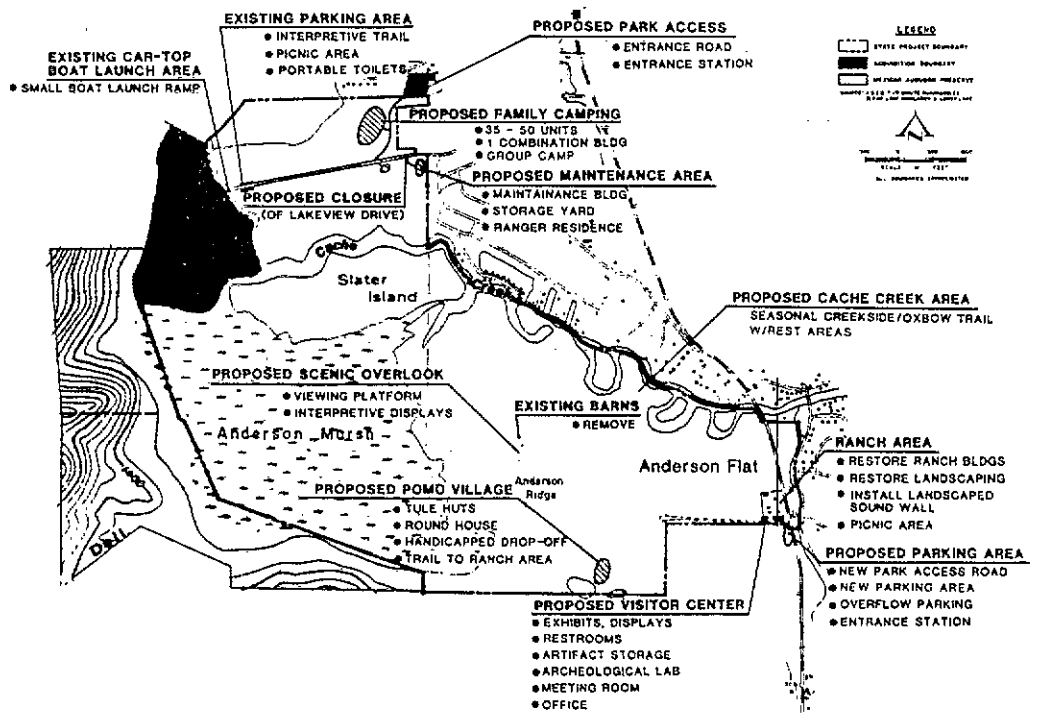
North Park Access

All groups recommended that a new north park entrance be developed off Old Highway 53, and that Lake View Way be closed beyond the church. (Group 4 felt Lake View Way should remain open for emergency access). ■

THE SINGLE PLAN

To compose the single plan, the planning team studied the results of the last workshop. Our primary concern in recommending and locating uses and facilities at the park is how to best satisfy the identified public needs without damaging the park's resources.

Prior to the Alternative Plans Public Workshop, the planning team identified these needs through research and public input: additional and improved trail and picnic areas, new facilities and programs for historical, natural and cultural resource interpretation, improved park access and parking, camping, ranch restoration, better park orientation, boating and fishing access, archaeological curation and artifact storage facilities and improved maintenance and operation. The drawing below shows what the planning team believes to be the most feasible plan for accommodating those needs at the park. We will discuss this plan in more detail at our next public meeting January 8, 1987.



Anderson Ranch Area will serve as the major access and orientation area to the park. The plan calls for development of a new entrance road, entrance station and parking area south of the ranch complex. The field east of the ranch will continue to serve as informal overflow parking for special events. When a new parking area is developed, the picnic area will be moved from the house lawn to the existing parking area in front of the ranch house. The Department will continue to work with Caltrans in an attempt to mitigate all impacts of the widening of Highway 53. We will pursue construction of a landscaped sound wall by Caltrans to combat the negative visual and sound effects of increased traffic.

This new parking area will serve three facilities:
1) a new visitor center. This facility will provide visitors with an orientation to the various areas of the park, displays and exhibits for natural, cultural and historical resource interpretation, storage and display of archaeological artifacts, an archaeological laboratory, restrooms, office and meeting space.

2) the Anderson Ranch complex. The plan calls for ultimate restoration of the house, grounds, north and south barns for interpretive use. For the house, potential uses include house museum, environmental living programs and office space. Uses of the south barn would include interpretation of the history of Anderson ranch and Lower Lake through exhibits, displays, demonstrations, audio/visual, and concession/ sales. Uses of the north barn for historical interpretive uses would include exhibits, displays, and demonstrations. The southeast storage shed will be converted to a public restroom/park maintenance facility. Depending on the need, the garage may or may not be retained for office space/maintenance storage.

Interpretation of archaeological , Native American, and natural resources will take place at the visitor center. However, until a visitor center is developed, the plan proposes interim use of the south barn as a multi-use orientation and interpretive center for cultural, historical and natural resource themes.

3) a reconstructed Pomo Village near the location of the existing tule huts at the base of Anderson Ridge. The Pomo Village will be connected by foot trail to the ranch parking area. Vehicular access will be limited to service and emergency vehicles and handicapped drop-off/pick-up. A small informal parking area at the fence corner would be appropriate to accommodate limited parking needs (performers, service and emergency vehicles) during special events.

Anderson Ridge
Facilities for this area will include a scenic marsh overlook for viewing and interpretation of the marsh. Only emergency and service vehicles will be allowed on the ridge except for special tours and events by permit only. The plan calls for the removal of the ridge barns.

Cache Creek
The trail along Cache Creek will be improved and maintained as a seasonal trail. Appropriate development would include providing benches and interpretive signs. The goal of the plan is to minimize visitor use impacts on the sensitive wildlife habitat and riparian growth along the creek.

White Bridge Area
The plan calls for retaining the existing parking area and portable toilets near White Bridge with the addition of picnic facilities and a raised boardwalk trail along the periphery of the marsh and Cache Creek. The car-top boat launch area will be improved to provide for a small-boat launch ramp.

Garner Island
If Garner Island is acquired, an elevated marsh viewing trail may be appropriate. Further study of the location and significance of the island's cultural resources should be made prior to proposals for additional development.

North Flat Area
The plan proposes the location of a maintenance facility and staff housing in this area to be located off a new park road and new north park entrance (with alternate staff and emergency access from Lake View Way). An oak woodland revegetation program should be implemented. A thirty-five to fifty unit family campground and group camp area will be developed, placed to avoid impacts to the most sensitive areas. ■

Anderson Marsh State Historic Park
Planning Team
California Department of Parks and Recreation
P.O. Box 942896
Sacramento, California 94296-0001

Appendix B:

Glossary of Terms

STATE PARK SYSTEM FACILITIES

GRAPHIC SYMBOL	FACILITY – DESCRIPTION/COMPONENTS	ACTIVITY/PURPOSE
	**ENTRY ROAD** Vehicle access point.	*Public vehicular access.*
	**DISABLED ACCESS** Turn around, limited parking.	*Closed to private vehicles except for disabled visitor access.*
	**REST AREA** Parking, restroom.	*Roadside rest area for travelers.*
	**CONTACT STATION** Small structure, entry gates, park information display, telephone, electricity, staff restroom, storage area.	*Fee collection, public information and safety, and control of park access.*
	**RANGER STATION** Structure for office, staff meeting area, park information display, dispatch radio, public telephone, restroom, staff shower. Structure(s) for maintenance shop, equipment and material storage (optional – may be located separately). Structure(s) or trailer pad(s) for employee housing (optional – may be located separately), utilities.	*Park administration, information, maintenance, public safety, storage of equipment and materials, employee living area.*
	**SERVICE AREA** Structure(s) for maintenance shop, equipment and material storage (when located separately from Ranger Station), utilities.	*Park maintenance, storage of equipment and materials.*
	**EMPLOYEE HOUSING AREA** Structure(s) or trailer pad(s) for employee housing (when located separately from Ranger Station) utilities.	*Employee living area.*
	**VISITOR CENTER** Structure for collections, interpretive displays, meeting area, theater, library, shop, docent headquarters, restroom, utilities.	*Public information and education, artifact and specimen preservation and storage, docent training and activities, sale of environmental information and documents.*
	**INTERPRETIVE EXHIBIT** Display panel(s).	*Information and education.*
	**RESTROOM** Portable toilet or pit toilet or comfort station or combination building. Utilities as required.	*Sanitation.*
	**PARKING** Paved or unpaved vehicle parking area. The number of spaces is as indicated on plan.	*Vehicle parking.*
	**FAMILY PICNIC AREA** The number of units is as indicated on the plan. Each unit contains a parking space, a picnic table, and a BBQ. Each group of units contains a water supply point, a refuse collection point, a restroom.	*Family picknicking, day-use activities.*

	**SCENIC OVERLOOK** Bench, locator map, interpretive exhibit (optional), hitching post.	*Rest stop, public information.*
	**NATURAL HERITAGE POINT OF INTEREST** Natural feature site, interpretive exhibit (optional).	*Preservation, interpretation.*
	**CULTURAL HERITAGE POINT OF INTEREST** Human activity site, interpretive exhibit (optional).	*Preservation, interpretation.*
	**TRAILHEAD** Parking, restroom, picnic tables, refuse collection point, water supply point (optional), interpretive display (optional), locator map.	*Walking, hiking, and/or bicycling starting point, public information.*
	**HIKING TRAIL** Unpaved with varying lengths and degrees of difficulty, loop opportunities, rest stops with picnic tables.	*Walking, hiking, jogging.*
	**INTERPRETIVE TRAIL – SELF GUIDED** Short length, loop trail with guide brochure, numbered posts and/or interpretive displays.	*Walking, public education.*
	**FISHING PIER** Pier with railing, rod holders, benches, comfort station, utilities.	*Fishing.*
	**ACCOMMODATION DOCK** Floating dock with tie-up cleats.	*Short-term berthing for access to shore facilities.*
	**CAR-TOP BOAT LAUNCHING AREA** Parking, comfort station.	*Car-top boat launching.*
	**LAUNCHING RAMP** Surfaced boat ramp, boarding floats, parking, restroom.	*Boat launching.*

Appendix C:

Initial Study Check List

INITIAL STUDY CHECKLIST

State Clearinghouse # 87021005

I. BACKGROUND INFORMATION

A. Name of Project: Anderson March State Historic Park General Plan

B. Checklist Date: 1 / 21 / 87

C. Contact Person: Roger Willmarth

Telephone: (916) 324-6419

D. Purpose: Plan development, operation, and resource protection for the park.

E. Location: ~~Lake County, adjacent to the City of Clearlake, at the outlet of~~ Clear Lake.

F. Description: See "purpose" above.

G. Persons and Organizations Contacted:

Department of Parks and Recreation staff.

II. ENVIRONMENTAL IMPACTS. *(Explain all "yes" and "maybe" answers)*

A. *Earth.* Will the proposal result in:	Yes	Maybe	No
1. Unstable earth conditions or changes in geologic substructures?	☐	☐	☑
2. Disruptions, displacements, compaction, or overcovering of the soil?	☑	☐	☐
3. Change in topography or ground surface relief features?	☐	☐	☑
4. The destruction, covering, or modification of any unique geologic or physical features?	☐	☐	☑
5. Any increase in wind or water erosion of soils, either on or off the site?	☐	☐	☑
6. Changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet, or lake?	☐	☐	☑
7. Exposure of all people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards?	☐	☑	☐

	Yes	Maybe	No
B. *Air.* Will the proposal result in:			
1. Substantial air emmissions or deterioration of ambient air quality?	☐	☐	☑
2. The creation of objectionable odors?	☐	☐	☑
3. Alteration of air movement, moisture or temperature, or any change in climate, either locally or regionally?	☐	☐	☑
C. *Water.* Will the proposal result in:			
1. Changes in the currents, or the course or direction of water movements, in either marine or fresh waters?	☐	☐	☑
2. Changes in absorption rates, drainage patterns, or the rate and amount of surface water runoff?	☐	☐	☑
3. Alterations to the course or flow of flood waters?	☐	☐	☑
4. Change in the amount of surface water in any water body?	☐	☐	☑
5. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity?	☐	☐	☑
6. Alteration of the direction or rate of flow of ground waters?	☐	☐	☑
7. Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?	☐	☑	☐
8. Substantial reduction in the amount of water otherwise available for public water supplies?	☐	☐	☑
9. Exposure of people or property to water-related hazards such as flooding or tidal waves?	☐	☑	☐
10. Significant changes in the temperature, flow or chemical content of surface thermal springs?	☐	☐	☑
D. *Plant Life.* Will the proposal result in:			
1. Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, and aquatic plants)?	☐	☑	☐
2. Reduction of the numbers of any unique, rare or endangered species of plants?	☐	☐	☑
3. Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?	☐	☐	☑
4. Reduction in acreage of any agricultural crop?	☐	☐	☑
E. *Animal Life.* Will the proposal result in:			
1. Change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms, or insects)?	☐	☐	☑
2. Reduction of the numbers of any unique, rare or endangered species of animals?	☐	☐	☑
3. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?	☐	☐	☑
4. Deterioration to existing fish or wildlife habitat?	☐	☐	☑
F. *Noise.* Will the proposal result in:			
1. Increase in existing noise levels?	☐	☑	☐
2. Exposure of people to severe noise levels?	☐	☐	☑
G. *Light and Glare.* Will the proposal result in:			
1. The production of new light or glare?	☐	☑	☐
H. *Land Use.* Will the proposal result in:			
1. A substantial alteration of the present or planned land use of an area?	☐	☐	☑
I. *Natural Resources.* Will the proposal result in:			
1. Increase in the rate of use of any natural resources?	☐	☐	☑
2. Substantial depletion of any nonrenewable resources?	☐	☐	☑

		Yes	Maybe	No
J.	*Risk of Upset.* Does the proposal result in:			
	1. A risk of an explosion or the release of hazardous substances (including, but not limited to, oil, pesticides, chemicals, or radiation) in the event of an accident or upset conditions?	☐	☐	☑
	2. Possible interference with emergency response plan or an emergency evacuation plan?	☐	☐	☑
K.	*Population.* Will the proposal result in:			
	1. The alteration, distribution, density, or growth rate of the human population of the area?	☐	☐	☑
L.	*Housing.* Will the proposal result in:			
	1. Affecting existing housing, or create a demand for additional housing?	☐	☐	☑
M.	*Transportation/Circulation.* Will the proposal result in:			
	1. Generation of substantial additional vehicular movement?	☐	☑	☐
	2. Affecting existing parking facilities, or create a demand for new parking?	☐	☐	☑
	3. Substantial impact upon existing transportation systems?	☐	☐	☑
	4. Alterations to present patterns of circulation or movement of people and/or goods?	☐	☐	☑
	5. Alterations to waterborne, rail, or air traffic?	☐	☐	☑
	6. Increase in traffic hazards to motor vehicles, bicyclists, or pedestrians?	☐	☑	☐
N.	*Public Services.* Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas:			
	1. Fire protection?	☐	☐	☑
	2. Police protection?	☐	☐	☑
	3. Schools?	☐	☐	☑
	4. Parks and other recreational facilities?	☑	☐	☐
	5. Maintenance of public facilities, including roads?	☐	☐	☑
	6. Other governmental services?	☐	☐	☑
O.	*Energy.* Will the proposal result in:			
	1. Use of substantial amounts of fuel or energy?	☐	☐	☑
	2. Substantial increase in demand upon existing sources of energy, or require the development of new sources?	☐	☐	☑
P.	*Utilities.* Will the proposal result in a need for new systems, or substantial alterations to the following utilities:			
	1. Power or natural gas?	☐	☐	☑
	2. Communication systems?	☐	☐	☑
	3. Water?	☐	☑	☐
	4. Sewer or septic tanks?	☐	☑	☐
	5. Storm water drainage?	☐	☐	☑
	6. Solid waste and disposal?	☐	☑	☐
Q.	*Human Health.* Will the proposal result in:			
	1. Creation of any health hazard or potential health hazard (excluding mental health)?	☐	☐	☑
	2. Exposure of people to potential health hazards?	☐	☐	☑
R.	*Aesthetics.* Will the proposal result in:			
	1. The obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of an aesthetically offensive site open to public view?	☐	☐	☑
S.	*Recreation.* Will the proposal result in:			
	1. An impact upon the quality or quantity of existing recreational opportunities?	☑	☐	☐

	Yes	Maybe	No
7. *Cultural Resources.*			
1. Will the proposal result in the alteration of or the destruction of a prehistoric or historic archeological site?	☐	☑	☐
2. Will the proposal result in adverse physical or aesthetic effects to a prehistoric or historic building, structure, or object?	☐	☐	☑
3. Does the proposal have the potential to cause a physical change which would affect unique ethnic cultural values?	☐	☑	☐
4. Will the proposal restrict existing religious or sacred uses within the potential impact area?	☐	☐	☑
U. *Mandatory Findings of Significance.*			
1. Does the project have the potential to degrade the quality of the environment, reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☑
2. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	☐	☐	☑
3. Does the project have impacts which are individually limited, but cumulatively considerable?	☐	☑	☐
4. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☑

III. DISCUSSION OF ENVIRONMENTAL EVALUATION *(See Comments Attached)*

A(2) - The family campground will need fill, grading, and surfacing.
A(7) - The family campground may be located on soils suceptible to severe shaking or liquefaction during strong earthquakes.
C(7) - Ground water quality and supply may be a problem at the ranch.
C(9) - The family campground may be subject to flooding from lake.
D(1) - Vegetation management projects may change existing plant communities.
F(1) - The family campground may create a new noise source.
M(1) - The family campground & other facilities may increase traffic on city streets.
M(6) - Developments at both ends of park may worsen traffic hazards until new highway section is built.
N(4) - G.P. expands camping and recreational opportunities.
P(3) - Need to check local water supply (see N-4).
P(4) - Need to check local sewage disposal situation.
P(6) - More garbage generated at the park.
S(1) - See N-4.
T (1&3) - Pothunting and vandalism may increase at park.
U(3) - Possible traffic impact (depends on amount of visitation and the volume/capacity of local streets and highways over the period of the plan.

IV. DETERMINATION

On the basis of this initial evaluation:

☐ I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A NEGATIVE DECLARATION will be prepared.

☐ I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

Date. 1/22/87

Roger Williamson

Appendix D:

Notice of Preparation Response from Caltrans

State of California — Business, Transportation and Housing Agency

Memorandum

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

Date : March 2, 1987

File No.:

From : DEPARTMENT OF TRANSPORTATION - District 1
P. O. Box 3700, Eureka, CA 95502-3700

Subject: Anderson Marsh State Historic Park

In response to your Notice of Preparation for the development of Anderson Marsh State Historic Park, the General Plan should consider the mitigation measures that are proposed for the impacts resulting from the construction of widening and realignment improvements planned for Route 53 adjacent to the park. The highway widening project is currently scheduled for construction in 1990. The realignment is not yet scheduled in Caltrans' 5-year planning program.

Mitigation measures that directly affect the park are:

1. Expansion of parklands south of the existing boundary.

   A. Approximately four acres west of the highway will be added to replace lands taken for right of way needed for the improvements.

   B. Approximately 2½ acres east of the highway along Seigler Creek will be improved for habitat by Caltrans and control transfered to DFR to partially mitigate wetland losses. In addition, available areas of parkland and right of way from the existing boundary to approximately 1,000 feet northerly will be planted to improve habitat. All of the area to be planted along Seigler Creek will be protected by State ownership.

2. The access connection will be moved approximately 500 feet southerly to facilitate the widening and a frontage road would be developed when the realignment is built.

3. The sewer main west of the highway and north of the ranch complex will be moved outside the new west right of way line.

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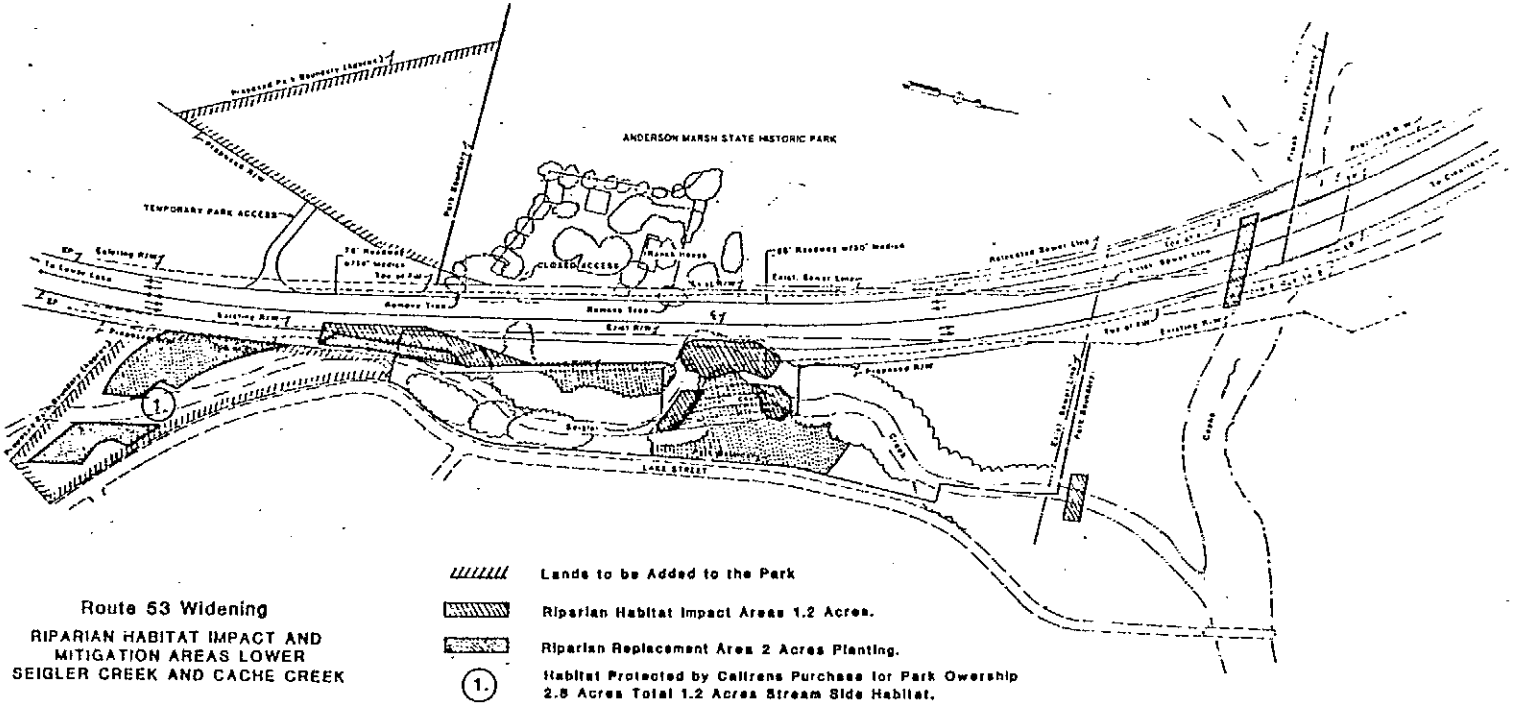
4. An approved program to determine depth and subsurface characteristics of archaeological resources on parkland will be undertaken. A system of augering will be used to develop an excavation proposal of sites on parkland. Mitigation will be developed in cooperation with the regional DPR archaeologist.

5. Construction of a sound wall is not justified as a part of the highway project because sound will be reduced by moving the traffic further away from the activity area of the ranch complex.

Please Note: The attached maps illustrate the areas of right of way to be taken, replaced and the proposed habitat mitigation areas impacting parklands. These maps are from an unapproved Negative Declaration/Initial Study and Section 4(f) Evaluation. Authorization to circulate this document is expected in the near future.

J. G. Haynes, P.E.
Intergovernmental Review Coordinator

Attachments



Route 53 Widening

RIPARIAN HABITAT IMPACT AND MITIGATION AREAS LOWER SEIGLER CREEK AND CACHE CREEK

EXHIBIT 4
Route 53 STAGE 1 Widening
at Anderson Marsh State Historic Park
No Scale

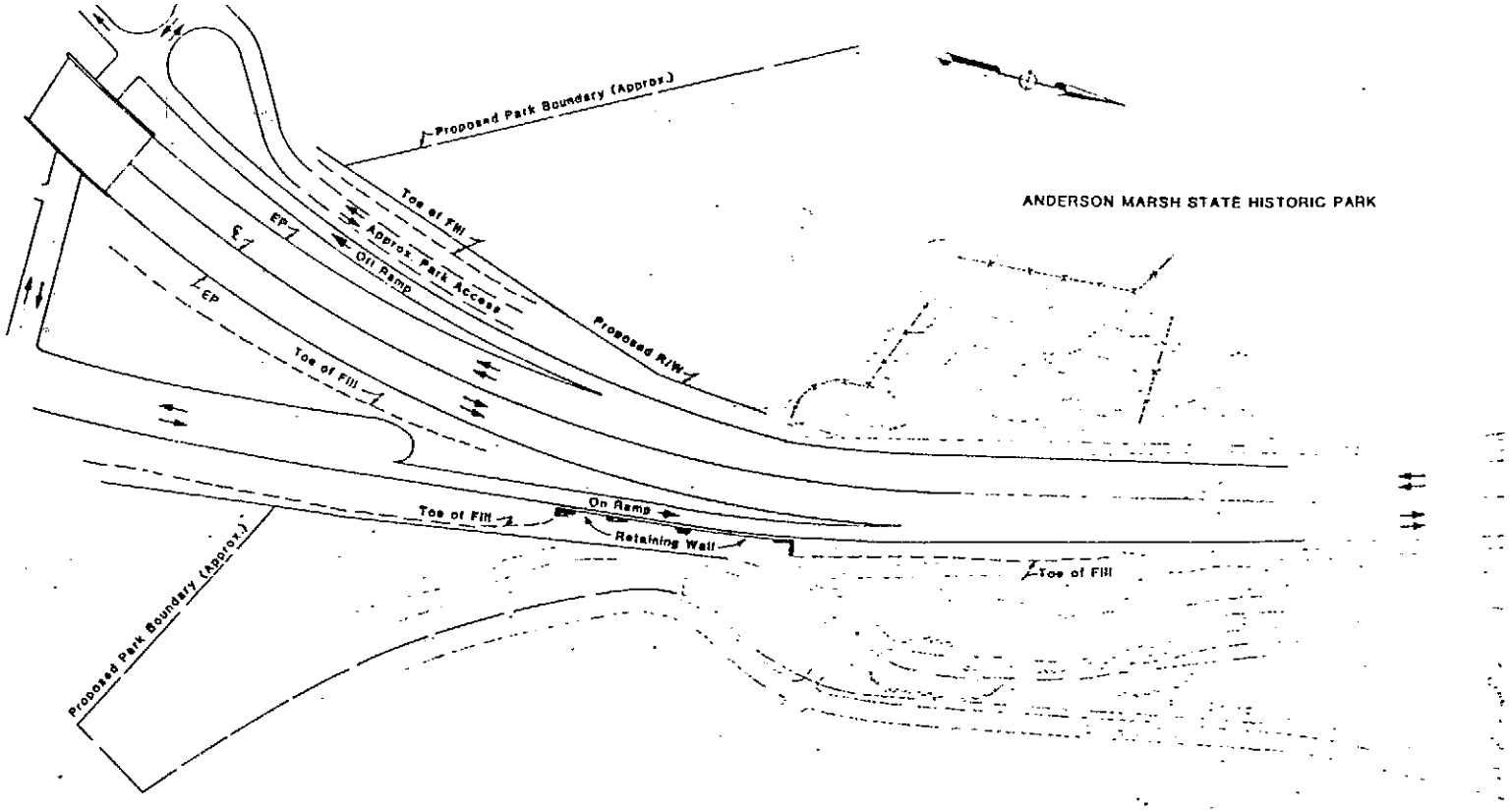


EXHIBIT 5

Route 53 Completed Lower Lake Bypass at Anderson Marsh State Historic Park

No Scale

Appendix E:

State Park Noise Regulations

4320. Peace and Quiet

To insure peace and adequate rest for visitors, no person shall so conduct himself that he distrubs other in sleeping quarters or in campgrounds between the hours of 10PM and 6AM daily. No person shall, at any time, use outside electronic equipment including electrical speakers, radios, phonographs, televisions, or other machinery, at a volume which emits sound beyond the immediate individual camp or picnic site without specific permission of the department. Engine drive electric generators which emit sound beyond the limits of a camp or picnic site may be operated only between the hours of 10AM and 8PM. (Authority cited: Public Resources Code Section 5003.)

Appendix F

The General Plan Team

This report was prepared by:

Jill Vanneman, Associate Landscape Architect
Gary Fregien, Associate Resource Ecologist
Steve Hill, District Superintendant, Clear Lake District
Floyd Lemley, State Park Ranger I
Carol Roland, State Park Historian I
Bob Hare, State Park Interpreter II

Under the supervision of:

Don Hook, Senior Landscape Architect, Development Division
Robert D. Cates, Chief, Development Division
Richard G. Rayburn, Chief, Resource Protection Division
Keith L. Demetrak, Chief, Office of Interpretive Services

With thanks to:

The many citizens who have helped shape this plan through participation in planning at workshops and meetings, especially Ray, Cecil, and Elvina Brown, Larry Reid, Mignon Perry, and members of the Anderson Marsh Interpretive Association and Cultural Heritage Council.