

UNIT 594

CRYSTAL COVE STATE PARK

GENERAL PLAN

March 1982

DEPARTMENT OF PARKS AND RECREATION

STATE PARK AND RECREATION COMMISSION

P. O. BOX 2390, SACRAMENTO 95811



RESOLUTION 18-82
Resolution adopted by the
CALIFORNIA PARK AND RECREATION COMMISSION
at its regular meeting in Santa Ana, March 12, 1982

WHEREAS, the Director of the Department of Parks and Recreation has presented to this Commission for approval the proposed General Plan for Crystal Cove State Park; and

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

NOW, THEREFORE, BE IT RESOLVED that the State Park and Recreation Commission approves the Department of Parks and Recreation's General Plan for Crystal Cove State Park, preliminary dated November, 1981, subject to such environmental changes as the Director of Parks and Recreation shall determine advisable and necessary to implement carrying out the provisions and objectives of said plan.

C O N T E N T S

	<u>Page</u>
SUMMARY	i
INTRODUCTION.	1
Purpose of Plan.	1
Project Description.	2
Project History.	3
Planning Process	3
RESOURCE ELEMENT.	7
Inventory Summary.	7
Resource Policy Formation.	16
Classification.	16
Declaration of Purpose.	16
Zone of Primary Interest.	17
Resource Management Policies.	17
Allowable Use Intensity.	27
LAND USE AND FACILITIES ELEMENT	31
Existing Land Use.	31
Regional Recreational Needs Analysis	32
Plan Objectives.	36
Proposed Land Use.	37
Proposed Visitor Facilities.	37
Trails.	38
Marine Ecological Preserve and Underwater Park Area	40
Crystal Cove National Historic District	40
Pelican Point Coastal Strip	41
Reef Point/Moro Beach	42
El Moro Area.	43
Moro Canyon Area.	44
Operational and Administrative Facilities.	45
Utilities.	47
Concessions.	47
Transportation and Circulation Analysis.	49
Capacity of Facilities	51
Proposed Plan Phasing.	52
INTERPRETIVE ELEMENT.	55
Interpretive Periods	55
Interpretive Themes.	55
Methods and Media.	60
Interpretive Services.	61
Interpretive Collections	64
Interpretive Priorities.	64
OPERATIONS ELEMENT.	67
Present Operation.	67
Future Operation	67

ENVIRONMENTAL IMPACT ELEMENT.	69
Description of the Project	70
Description of the Environmental Setting	70
Local/Regional Setting	70
Environmental Impacts of the Proposed Project.	78
Significant Environmental Effects and Mitigation Measures	
Proposed to Eliminate or Minimize Effects.	78
Unavoidable Environmental Effects.	93
Alternatives to the Proposed Project	93
The Relationship Between Local Short-Term Use of Man's Environment	
and the Maintenance and Enhancement of Long-Term Productivity.	94
Irreversible Environmental Changes and Irretrievable Commitments	
of Resources Should the Proposed Project Be Implemented.	94
Growth Inducing Impact of the Proposed Project	95
Cumulative Impacts	95
Persons/Agencies Consulted in the Preparation of the	
Environmental Report	96
 SELECTED REFERENCES	
 APPENDIXES.	99
A. Cultural Resource Overview of Crystal Cove State Park	99
B. Maps.	109
Location	111
Existing Conditions.	113
Interim Facilities	115
Generalized Cultural Resource Location	117
Allowable Use Intensity.	119
Land Use and Facilities.	121
 ENVIRONMENTAL IMPACT ELEMENT COMMENTS AND RESPONSES	123

SUMMARY

Crystal Cove State Park is located on the Orange County coast between the communities of Newport Beach and Laguna Beach, and includes more than three miles of scenic coastline. The park contains some of the last remaining undeveloped coastal property in Southern California, as well as scenic upland canyons and ridges, coastal benchlands and bluffs, excellent swimming beaches, and significant offshore marine features. The boundaries of the park contain a total of 2,791 acres, including additional upland property near Moro Canyon. Offshore submerged lands may also be added to the park.

The park also contains several important Native American sites, a variety of natural resources, and a historic district made up of cottages built between 1921 and 1940. The lands in this region, including the park, were part of the original Irvine Ranch holdings, and have been used for cattle grazing for many years. Portions of nearby ranch lands are still used for this purpose.

Regional planning considerations, recreational opportunities, visitor use facilities, and operational requirements have been identified in the General Plan. The plan also provides for preservation of significant natural and cultural resources, and for protection of all park resources. The underwater marine resources off Pelican Point are proposed as an ecological marine preserve, offshore submerged lands are proposed as an underwater extension of the park, and the historical resources at Crystal Cove will be preserved and interpreted.

Throughout the planning process, the public has maintained an active interest in preparation of the General Plan, and has offered many comments and suggestions. Major planning objectives for the park were also closely coordinated with requirements of the Coastal Act of 1976.

Diverse recreational activities (both active and passive), a marine preserve, an underwater park designation, and a historic district will provide a variety of recreational and educational experiences for visitors to Crystal Cove State Park. Underlying this is the department's basic premise that the natural, cultural, and scenic qualities of the park will be retained through judicious grouping of developments, leaving the bulk of the property in its natural state.

The land uses and visitor support facilities proposed in this General Plan are summarized below:

Ecological Marine Preserve

Pelican Point -- from mean high tide line to 120-foot depth.

Underwater Park Area

Recommended as an underwater addition to the unit extending the entire length of the park shoreline (3.25 miles) from mean high tide line to 120-foot depth.

Crystal Cove Historic District

Vacation community (approximately 12 acres) is listed on National Register of Historic Places -- potential uses include interpretive facilities, hostel, outdoor education programs, concessions.

Trails

Interpretive and Access Trails	5.5 miles
Hiking/Equestrian Trails	<u>17.5 miles</u>
Total	23.0 miles

Hostel

Potential location near Bikecentennial Trail Route, in or near Crystal Cove Historic District.

Parking Lot Capacity

	<u>Vehicles</u>	<u>Buses</u>
Pelican Point/Crystal Cove Use Areas	240	2
Los Trancos Creek	600	4
Hostel Parking	10	1
Crystal Cove Historic District (Staff)	10	
Reef Point	300	2
Lower Moro Canyon	350	3
El Moro Area Overflow	200	
Equestrian Staging Area	35	
Moro Cove Use Area	<u>200</u>	<u>2</u>
	1,745	14

Picnic/Day-Use Areas

Pelican Point/Crystal Cove	3 areas
Crystal Cove Historic District	1 area
Pelican Point Group Area	30 people
El Moro Area	1 area
Moro Canyon Group Area	30 people
Moro Cove Area	1 area

Overnight Use

El Moro Campground	60 formal campsites
Sycamore Hike/Ride-In Campground	30 people
Upper Moro Ridge Hike/Ride-In	60 people
Lower Moro Ridge Hike-In	30 people

INTRODUCTION

Purpose of Plan

Crystal Cove State Park is a new addition to the State Park System with unique opportunities and problems. This General Plan is the first step in defining the special needs and restrictions of the park, and the degree of development and use that will be allowed. General management and development guidelines in this plan will remain flexible through review and continued updating. The plan will act as the primary source of information and concepts from which future park management and development evolve. Specific proposals will be further refined when specific items are funded for implementation. The plan is made up of the following elements:

The Resource Element is a summary of the natural and cultural resources of the area, and sets the management policies for protection and use of these resources.

The Land Use and Facilities Element describes current and proposed land uses and relevant planning issues, and describes proposed facilities and programs.

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 General Plan as a whole serves as the draft environmental impact report. Detailed environmental impact information is presented in the Environmental Impact Element. Further environmental assessment will be performed when specific construction funding is proposed, and if significant environmental impacts differing from those specified in this General Plan are found, further environmental documents will be filed.

In preparing the plan, several initial goals and objectives have been established to serve as a general guide. Goals and objectives will be to:

1. Identify the unit's cultural and natural resources.
2. Identify existing and future problems, and provide solutions.
3. Determine land use, park development, and visitor activities that are compatible with the purpose of the park and the surrounding area.
4. Determine the potential environmental impacts of the land uses and visitor activities.
5. Establish policies for maintenance and operation, protection and preservation, development, and interpretation of the resources.
6. Establish a sequence of park development.
7. Provide an information document for the public, the legislature, department personnel, and other government agencies.

Project Description

Crystal Cove State Park is located along the central coast of Orange County, in the Coastal Strip and the Southwest Mountain and Valley Landscape Provinces. Downtown Los Angeles is 80 kilometers (50 miles) to the north, and San Diego is 113 kilometers (70 miles) to the south. The park is flanked by the coastal communities of Newport Beach and Laguna Beach.

The current state ownership of 2,791 acres includes almost all coastal lands between Cameo Shores and Laguna Beach, as well as most of the Moro Canyon watershed. These lands are currently being managed by the Department of General Services.

The study area as delineated in this report coincides with the Irvine Coast planning area identified in the Local Coastal Program prepared by the Orange County Environmental Management Agency. The planning area contains 9,400 acres, and extends approximately from the ocean to the ridge of the San Joaquin hills. The vast majority of public and private land in the study area is now undeveloped, in spite of being surrounded by rapidly growing residential, commercial, and industrial areas. An extensive arterial highway and freeway system serves this region. Because of their proximity and influence on the management, future development, and use of the park, these lands have been examined for resource evaluation and planning purposes.

Discussion of surrounding lands in this plan is intended for long-range planning purposes only, and is not a commitment for acquisition. It is desirable to provide for public open space lands around Crystal Cove State Park to assure realization of the area's public recreation potential, and to maintain the integrity of the natural character of the area. The department supports the proposed dedication of lands south of the park identified in the Irvine Coast Local Coastal Program. The department also supports any other efforts to preserve natural open space and public recreation opportunities in the area. These efforts include the Laguna Greenbelt, the Aliso Greenbelt, and the proposed national urban park.

Present access to the park is provided by the Pacific Coast Highway (Highway 1), which traverses the park. The Bikecentennial Bike Trail parallels the highway in this area.

The highway divides park ownership into two parts: the coastal strip and the inland areas. The coastal strip is about 181 hectares (448 acres) in size, and consists of the coastal terrace, bluffs, strand and pocket beaches, intertidal features, and marine features. The inland area is about 948 hectares (2,343 acres) in size, and includes nearly all the watershed of Moro Canyon.

There are two rare plant species that exist along the coastal strip (see Resource Element, page ____). No rare or endangered animals inhabit the park, although some pass through or are found close by. Some of these include the brown pelican, California least tern, peregrine falcon, southern bald eagle, and gray whale.

Crystal Cove State Park's outstanding natural visual qualities provide a dramatic contrast to the increasingly urban character of this coastal region. The park consists of a wide variety of landscape and scenic features. Some of

these include underwater reefs, rolling surf, coastal beaches and tidepools, cliffs, wide and narrow marine terraces, gently-sloping hills, deep wooded canyons, steep canyon walls, and rounded ridgetops.

Although most of the project area consists of natural open space, there is some development. Existing development includes: a commercial horse stable for a maximum of 325 horses on the coastal terrace near Pelican Point, a group of 46 cottages at Crystal Cove, a small roadside refreshment stand near Crystal Cove, a 294-space mobile home park at Moro Cove, and three unimproved parking lots on the coastal terraces above the beach. There are two small inholdings east of the highway, near Moro Cove. These include an elementary school and a small municipal reservoir serving Laguna Beach. A number of high-power transmission lines with both wooden and metal poles cross Moro Canyon in several locations.

Project History

Since 1974, the legislature has assigned a high priority to the Irvine Coast Project because it offered one of the last opportunities to acquire a large area of natural coastal property in Southern California for the State Park System. The legislature increased funding for this project from \$7.5 million to \$38.1 million in order to provide for (1) the rising cost of coastal property in Southern California; (2) payment of relocation costs for tenants who have either permanent or second residences on the property; and (3) the costs of an expanded project.

On December 13, 1979, the State Public Works Board approved purchase documents in the amount of \$32.6 million from various funds for acquisition of a portion of the Irvine Ranch, making up approximately 1,898 acres.

On April 11, 1980, the State Park and Recreation Commission classified and named the acquisition: CRYSTAL COVE STATE PARK.

Shortly thereafter (June 1980), the Irvine Company donated 500 acres of Moro Ridge as a gift to the state, bringing the total acreage in state ownership to 2,398 acres. In addition, the state exercised an acquisition option in September 1981, purchasing 393 acres of a tributary watershed on the north side of Moro Canyon. Park ownership currently includes almost all of the Moro Canyon watershed and most of the coastal strip between Newport Beach and Laguna Beach. In addition, offshore submerged lands to the 120-foot depth may be added to the park.

Planning Process

Public Involvement

Public involvement has played an important role in formulating this plan. Along with questionnaire surveys and newsletters, a series of public planning meetings and workshops was conducted. The meetings were held during key phases of the planning process, with emphasis placed on existing resources, potential recreation, land use, and facilities needs. The public involvement program provided the public and the department with the means to identify and address key planning concerns, and to exchange ideas and information regarding future management, use, and development of the park. The following is a summary of public workshops held during the planning process:

<u>Meeting Date</u>	<u>Purpose</u>
1. March 26, 1980	State Park and Recreation Commission: Classification and park unit name.
2. May 1 and 2, 1980	Open house and resource inventory. Since this is a new park and public access has been limited, the initial major emphasis was to generate public awareness of the park's potential, and the planning process and schedule. To initiate the general plan process, a two-day open house was held at the El Morro Elementary School to introduce and acquaint the public with the newly acquired park. Many people completed data-collecting questionnaires and exchanged ideas and information with resource staff and planners, helping to establish a project data base for subsequent planning phases. Included in the open house activities were slide presentations and several walking tours to various areas of the park.
3. September 11 and 12, 1980	Review of draft resource element. The September meetings provided a planning update and a review of the draft resource element. A slide presentation providing a brief overview of the park's sensitive resources and prime natural areas was followed by an open discussion period. In addition to resource issues and concerns, discussion topics included park management, recreation development, and general planning concerns. The Advisory Board on Underwater Parks and Reserves investigated the project's underwater resources, and has recommended that the submerged lands off this unit be added to the park.
4. January 29 and 30, 1981	Land use and facilities alternatives. Resource element findings, recreation data, and general project concerns were synthesized into a series of planning alternatives. All previous public meeting information, plus a recreation survey conducted to reach potential park visitors not attending previous meetings, contributed to formulating alternatives. The first half of the meetings included planning updates and summary presentations of the recreation survey and preliminary resource element. The second half consisted of a workshop session where meeting participants completed a land use and facilities alternatives workbook.

5. May 12, 1981

Review preliminary plan.

A preliminary land use and facilities plan was presented for review by the public. The plan was the result of ideas generated during the planning process by the public, department staff, local agencies, and State Coastal Commission staff. The vigorous discussion that followed the plan presentation included issues that came up repeatedly throughout the process: the future of the equestrian center and the Crystal Cove tenants.

The Coastal Act of 1976

Various local and state plans that addressed issues relevant to Crystal Cove State Park were reviewed in preparing this plan. For example, the Local Coastal Program being prepared by Orange County was consulted to avoid conflicts between this General Plan and the county's planning objectives. Conformance to the Coastal Act of 1976 played a significant role in formulating this plan. The key relevant policies in the Coastal Act of 1976 are:

- 1) Maximum coastal access and recreational opportunities to be offered, consistent with safety, public and private property rights, and protection of natural resources.
- 2) Public facilities, including parking, to be distributed to avoid overcrowding or overuse of any single area.
- 3) Lower cost recreational facilities and housing to be encouraged.
- 4) Coastal water-oriented facilities that cannot be provided at inland areas to be protected.
- 5) Oceanfront land suitable for recreational use to be protected for that use unless demand is already met by existing development.
- 6) Supportive uplands areas to be preserved, where feasible.
- 7) Environmentally sensitive natural areas to be preserved:
 - a) Habitats preserved.
 - b) Areas adjacent to habitats set aside as buffer zones.
 - c) Marine environment protected.
 - d) Quality of all waters maintained.
- 8) Cultural areas to be preserved.

RESOURCE ELEMENT

The purpose of this Resource Element, which becomes a section of the General Plan for Crystal Cove State Park, is to establish the long-range resource management objectives and policies necessary to perpetuate the resource values for which the park was established. The specific programs and details for carrying out such management policies will follow General Plan approval.

In addition, this element identifies specific resource sensitivities and physical constraints, and establishes the department's guidelines for acceptable levels of development and use with respect to these values.

The Resource Element is organized into two parts. The first part includes a brief summary of park resources. More detailed information on these subjects is available in the Inventory of Features, on file with the department.

The second part of the Resource Element is the policy portion of the document, which begins with unit classification as a state park, then builds on this foundation, arriving at specific resource management policies.

Any new acquisitions to Crystal Cove State Park will require additional review and possible formation of additional resource policies.

Inventory Summary

Unit Identification

Crystal Cove State Park is located in central coastal Orange County, in the Coastal Strip and the Southwest Mountain and Valley Landscape Provinces.

State Highway 1, a four-lane highway with surface access, bisects the park between the communities of Newport Beach and Laguna Beach. Residential development in these communities flanks both upcoast and downcoast park boundaries on land west of Highway 1. To the east of the highway, park boundaries have no existing adjacent development.

The park includes about 5.2 kilometers (3.25 miles) of coastline and 1,129 hectares (2,791 acres) of land. The coastal portion lying generally west and south of the highway is about 181 hectares (448 acres) in size. It includes the coastal terrace, bluffs, beach, and intertidal and marine features. The inland portion to the east and north of the highway is about 948 hectares (2,343 acres) in size. It includes nearly the entire watershed of Moro Canyon.

Summary of Resources and Evaluations

This section consists of a summary of the Inventory of Features. More detailed information is on file with the department.

Natural Resources

Topography

There are five major terrain features in the park. These are sandy beach, coastal bluffs, coastal terraces, rounded ridges and slopes, and steep canyons and narrow valleys.

The sandy beach is narrow at the upcoast end and moderately wide at the downcoast end. Low tides expose extensive tidepool areas along the upcoast areas, and high tides lap at the base of bluffs.

The terraces are located in back of approximately 24-meter (80-foot) high bluffs in two sections. The upcoast terrace is about 610 meters (2,000 feet) wide at the northernmost end, narrowing and disappearing in a ridge near Crystal Cove. The other terrace, located in the downcoast half, is much narrower and shorter in length. Both terraces have sloping access routes to the beach. Shallow canyons cut across both terrace areas.

The upland portion, the extensive Moro Canyon area, begins with gently sloping hills, and terminates in the upper canyon with steep, high canyon walls. The highest point of land at the end of the canyon is 299 meters (980 feet) in elevation. Upper Moro Canyon branches into several steep tributary canyons separated by steep ridges. A narrow valley follows the length of the canyon.

Nearly all of the coastal terraces slope less than 8 percent. The rounded hills in lower Moro Canyon range between 25 and 50 percent slope, while more than 90 percent of upper Moro Canyon has slopes greater than 50 percent.

Meteorology

Crystal Cove State Park has a Mediterranean-type climate, and is located in the "maritime fringe," an area with a strong moderating marine influence. The maritime fringe zone is characterized by the warmest month of the year averaging below 22° C (72° F) and the coolest month above 10° C (50° F).

Summers are cooled by moist, foggy air coming in off the ocean in the mornings, with a relative humidity of 60 percent or higher. The sun usually burns off the fog by mid-morning and temperatures warm up, only to cool off again in the late afternoon, when the humidity again rises. In the evening, the ocean breezes usually subside, reverse themselves, and flow off the foothills and down the canyons toward the ocean.

Sixty to 70 percent of daylight hours in the maritime fringe are sunny, with most sunny days occurring between July and December.

Rainfall in the park's vicinity averages about 30 centimeters (12 inches) a year, with most precipitation falling between November and April.

Strong, warm, dry winds, known as Santa Anas, occasionally occur in spring and fall. During these times, the wind changes direction and the warm, dry desert air rushes toward the coast, sometimes with velocities of 97 kilometers per hour (60 miles per hour) or greater. This desiccating air frequently causes wildfires.

Hydrology

Portions of eight coastal watersheds are located in the park.

The major watershed is Moro Creek, which includes nearly all of the inland portion of the park, about 678 hectares (1,676 acres). All of this watershed except the upper reaches of the north arm is in the park. There are two small man-made dams on Moro Creek that were made for stock watering. Moro Creek is intermittent, and some portions may have no surface flow during part of the year.

The Muddy Canyon and Los Trancos Canyon watersheds are made up of about 400 hectares and 600 hectares (1,000 and 1,500 acres) respectively, and are mostly outside the park boundaries except in their lower stretches near State Highway 1. Their major impact on the park is drainage from the uplands through the unit.

Five small drainages traverse the park to the west of State Highway 1, draining small areas to the east of the park. All enter the Pacific Ocean in the park.

Drainage from the coastal terrace is random and, in places, is almost sheet-like. After heavy rains, numerous rivulets drain over the coastal bluffs. These create numerous rills and gullies, and some waterfalls have created large, overhanging, hemispherical cuts in the bluff faces. Some of this is part of the natural erosion process, but in some areas, it is accelerated erosion, due in part to increased impervious surfaces and compacted soil.

All streams in the park are ephemeral or intermittent, and generally contain water for only short periods after a rain. Springs occur in the area from perched water tables of trapped rainwater. In Moro Canyon, these keep sections of the streambeds moist or pooled throughout most or all of the year; however, the rate of flow varies from only one-quarter to one-half gallon per minute. Runoff varies seasonally and yearly, depending on rains.

Sediments carried by coastal streams and erosion of ocean bluffs provide particles for beach sand replenishment. This process is especially significant during periods of heavy precipitation or high tides and storm surf, and is an important component in the seasonal cycle of beach erosion and accretion.

The major rivers of Los Angeles and Orange Counties' coastlines have been dammed and channeled, which has depleted much of the natural sand supply. Therefore, the major source of beach sand originates in and near the park.

Sand movement along this portion of coast is generally offshore during fall and winter and onshore during spring and summer. Variable currents move sand northward in summer and southward in winter. Sand reaching the submarine Newport Canyon off Newport Harbor is lost for beach replenishment, since currents and wave action cannot bring the sand back out of the canyon.

Changes in land use or modifications to the existing landscape in the area may change prevailing erosion rates and, therefore, may affect beach sand supply.

Surface water quality is generally good except for occasional high turbidity levels during winter storms, and for nutrient loading.

No specific tests to evaluate groundwater quality or quantity in the Irvine coastal area are known to have been conducted. Most of the bedrock is classified as "non-waterbearing;" very little, if any, groundwater is available.

Geology

The predominant rock types in the park are marine sedimentary rocks of Tertiary age. The sedimentary assemblage is locally intruded by Miocene dikes and sills of andesite and diabase. Quaternary slope-wash deposits, slope-failure deposits, terrace deposits, and beach sands form a relatively thin cover over the older units. Faulting occurs in the lower and middle reaches of Moro Canyon.

Slope failure and earthquake damage are probably the most significant potential geologic hazards in the park.

The central portion of Moro Canyon is prone to landsliding and other slope failures. The danger of these failures is increased during periods of heavy rain. Several of the landslides in Moro Canyon are more than 4 hectares (10 acres) in size, although these larger landslides may have occurred prehistorically, when sea levels and climatic conditions in the region were quite different.

The park is in a seismically active region. The fault zones in the region most likely to generate damaging earthquakes are the San Andreas (about 83 kilometers (52 miles) northeast of the site), the San Jacinto (about 72 kilometers (45 miles) northeast of the site), the Whittier-Elsinore (about 35 kilometers (22 miles) northeast of the site), and the offshore Newport-Inglewood (about 1 or 2 kilometers (1 mile) west of the site).

No conclusive evidence of Holocene fault movement was noted in an investigation of the Laguna Beach region in 1976. However, evidence of late Pleistocene or possibly younger faulting was found along three fault traces in the Pelican Hill fault zone, in the Spy Glass Hill area near Newport Beach.

Coastal erosion is a significant factor on the Irvine Coast. Both natural and human-caused erosion are now occurring along the bluffs. The actual magnitude of erosion is unknown.

Fossil sites occur in several locations, and include mollusks, echinoids, and foraminifera. These fossils, although apparently not rare, could have public display or educational values.

Soils

The U.S. Soil Conservation Service has mapped 14 different soil series within the park boundaries. Generally, the coastal terrace portion of the park consists of older, clayey soils, which have slow percolation and high runoff. They are also easily compacted and are especially muddy when wet, and dusty

when dry. Conversely, Moro Canyon consists mainly of younger soils, coarse or stony in texture, high in percolation, and with moderate to severe erosion potential.

Plant Life

The park has six recognized plant communities. These occur primarily as a result of diversity in topography, varying exposures in Moro Canyon, and the strong maritime influence near the coast. The six communities are: Southern Coastal Strand, Southern Coastal Bluff Scrub, Coastal Sage Scrub, California Mixed Chaparral, Introduced Annual Grassland, and Southern Riparian Woodland. Discussions of these communities are found in the Inventory of Features.

The Introduced Annual Grassland is an artificially maintained plant community in the park. Scrub and chaparral have been cleared and grassland maintained on favorable sites by the use of herbicides and grazing. If natural processes (other than fire) are allowed to prevail, the grassland will succeed to a shrub and, in some cases, a woodland vegetation type. The time span for this process will vary according to site conditions.

Fire can interrupt this process. However, once shrub species are allowed to become established, they will reestablish rapidly after a fire by either stump sprouting or prolifically germinating dormant seed. Grassland and pioneer herbaceous species will have only a short recurrence in what will become a rapidly progressing successional pattern. Continually recurring pressure, e.g., fire, grazing, herbicides, or mechanical alteration, would be necessary to maintain annual grassland.

The scrub, and particularly chaparral, is a "fire-type" vegetation. That is, fire is one of the major environmental factors in its formation, renewal, and perpetuation. Species that belong to these communities are adapted to periodic fire, and regenerate quickly and effectively after burning. Likewise, chaparral and scrub species contribute to the eventuality of fire. The resinous, highly flammable content of the plants, plus their rapid accumulation of litter and compact growth, make chaparral one of the most fire-susceptible vegetation types in the world.

Fire is inevitable in chaparral. The longer fire is suppressed, the greater its potential. When fire does occur after long suppression, it is more intense and difficult to control.

The upper two-thirds of Moro Canyon is nearly all dense scrub and chaparral. Additionally, the steep slopes of Moro Canyon will accentuate the intensity and speed of any wildfire originating in the canyon. Although fire histories have not been kept on project land, it has probably been more than 20 years since a fire has occurred in Moro Canyon, according to Irvine Company employees.

There are two rare plants in the park, Turkish rugging (Chorizanthe staticoides) and many-stemmed dudleya (Dudleya multicaulis). Both occur in several places along the terrace top immediately above the bluffs and, in some cases, along the bluffs themselves.

Five specimens of an unusual hybrid oak occur in the central portion of Moro Canyon, near Moro Creek. A preliminary taxonomic evaluation suggests that the oaks are a cross between valley oak (Quercus lobata) and scrub oak (Quercus dumosa). Due to this, the oaks are of scientific importance.

Of the plant communities occurring on the property, Coastal Sage Scrub and Riparian Woodland are becoming increasingly rare in Southern California. Coastal Sage Scrub is classically represented on the project site. The woodlands, although small in extent, are also ecologically significant.

Animal Life

Coastal and inland portions of the park provide habitat for a fairly diverse variety of wildlife species. Species associated with various habitats of the park are listed and discussed in the Inventory of Features.

No rare or endangered animal species, as classified by the state, are known to live in the project area, although some pass through or close by. The latter include the brown pelican, California least tern, peregrine falcon, and southern bald eagle, in order of chance of observation. The endangered brown pelican will be seen frequently flying and feeding along the coastline, usually just beyond the wave line. The endangered California least tern is found both north and south of the project, and may be seen occasionally flying along the coastline. The endangered peregrine falcon and southern bald eagle have been observed in Orange County, but recordings of these birds have been very infrequent.

The endangered (federal listing) gray whale can be seen from the coastal bluff tops as it makes its fall migration down to Baja California, and again in the spring, on its return to its Arctic feeding grounds. Its population is estimated to be around 11,000 animals, and it is the only whale species known to show a substantial recovery after protection was provided.

Little natural coastal terrace habitat remains along the southern California coast. Much of that remaining has been modified by grazing, recreation, or other uses.

Inland habitats, including scrub, chaparral, and riparian, are relatively natural, and have not had pressures of urbanization and extensive human use, other than grazing. Coastal areas have had more human impact, which has displaced certain species needing privacy from people.

The riparian habitat in Moro Canyon is neither extensive nor well-developed. Nonetheless, it is valuable to wildlife because of its very limited extent in the region, and because of its importance to a large number of animal species, including many from adjacent habitats.

Mammal trapping in the area in 1976 found species that are more common in desert-like habitats away from the coast. These included the little pocket mouse, the cactus mouse, and the desert wood rat. The occurrence of these species is a good indication that the project area is drier or more desert-like than similar areas near the coast in Southern California.

Marine Life

Ocean waters off the coast of the park are part of the Irvine Coast Marine Life Refuge, established by the State Legislature, and the Irvine Coast Marine Life Refuge Area of Special Biological Significance, designated by the State Water Resources Control Board.

Ocean temperatures in the vicinity of the park vary from the mid-50s F in January to the 70s F in the summer. Temperatures are somewhat dependent on current patterns and storm conditions, but are fairly constant during a season.

Ocean turbidity is moderate, with average underwater visibilities of 3 to 4.5 meters (10 to 15 feet); however, visibility may increase to 10 meters (40 feet) during the winter, when there are no storms. During storms, visibility drops to almost zero.

The intertidal zone has sandy beach, rocky cobble, and bedrock outcroppings during winter. In summer, some of the narrow but extensive cobble areas become covered by sand.

Marine life species common to habitats off the coast of the park are listed and discussed in the Inventory of Features.

Organisms of high interest to divers and fishermen include scallops, abalone, lobster, rockfish, halibut, sea bass, croaker, and bonita.

Cultural Resources

Native American Resources

Native American resources occur in Crystal Cove State Park. At least 30 extensive Native American Indian sites have been identified at various elevations.

The park is within the territory of the Juaneno Band of Mission Indians, an Utazetekan-speaking people related linguistically and culturally to the Gabrieleno of the Los Angeles basin. At present, there is discrepancy between published ethnographic information and contemporary Juaneno people regarding the territorial boundary between Gabrieleno and Juaneno; published data suggest that the park is within Gabrieleno territory, while the Juaneno claim the area as part of their territory. Perhaps research in the mission archives can clarify this, as the group names are derived from which mission the neophytes were attached to, and it is known that these lands were used for grazing by the San Juan Capistrano Mission.

Native American sites in the Crystal Cove State Park area are of three types: (1) occupation sites, areas where people lived for some time, either returning seasonally or remaining in residence throughout the year; (2) task sites, areas that were used only for performing specific tasks, such as shellfish gathering and processing; and (3) rockshelters, some of which represent certain aspects of occupation sites while others have certain aspects of task sites. Most of these shelters were used as temporary occupation sites during certain times of the year.

For purposes of management, Native American sites in the park are divided among six geographic areas.

Area 1 contains five Native American sites: ORA:130, 147, 246, 660, and CCT3; and two previously recorded Native American sites, ORA:1 and 661.

Area 2 contains four large Native American sites: ORA:280, 281, 323, and 324. These sites probably constitute the remains of a single large village separated into four areas.

Area 3 contains eight Native American sites: ORA:325-331 and ICS1.

Area 4 contains three large rockshelter complexes: ORA:332 and CCT10 and 11.

Area 5 contains one rockshelter complex: CCT13, and one open air site: CCT14.

Area 6 contains five rockshelter complexes: CCT8, 16, 50, 51, and ORA:333, and one open-air site: CCT52.

Euroamerican Resources

Euroamerican resources are located in Area 1. The community of Crystal Cove is on the National Register of Historic Places because it represents the last beach community on the Southern California coast that has remained generally unchanged since World War II. The registry nomination also recognizes the importance of the local vernacular architecture; most of the cottages and outbuildings were designed and constructed without the services of an architect. In addition, CA:ORA:685 lies just to the west of Crystal Cove, and probably represents a dump area associated with 20th-century occupation of the cove. A Japanese village associated with farming around the Crystal Cove area is believed to have existed east of State Highway 1 and north of Crystal Cove.

Cultural History

Archeological and historical linguistic evidence has been interpreted to indicate that the present Juaneno people of the area replaced a Hokan linguistic group about 7,000 years ago. Permanent villages appeared in the fertile lowlands and in sheltered areas along the coast shortly after the ancestors of present-day local Native Americans arrived in Southern California. Native American culture flourished in the area for centuries, until the arrival of Europeans. A number of accounts suggest that the Juaneno people suffered greatly from European diseases transmitted to them before Hispanic colonization of this area (more information on Native Americans is found in the Technical Appendix).

For the most part, the area of Crystal Cove State Park was isolated during the Euroamerican period until construction of the roadway known today as State Highway 1. Lying outside the major north-south routes of travel, the area has no written documentation of its history before the age of the automobile, the motion picture industry, and the search for beach frontage for vacation use in Southern California.

The southwest-facing coastline now called Crystal Cove was part of the land grant known as Rancho San Joaquin. Before the grant, the land had been included in the grazing lands of Mission San Juan Capistrano; it was a small portion of several hundred square miles of grasslands used by the mission. Jose Andres Sepulveda petitioned for the grant near the coast in 1836, but did not gain approval for judicial possession until April 15, 1837. In May 1842, Sepulveda added a second piece of property (La Bolsa de San Joaquin), creating the Rancho San Joaquin.

Following a series of economic reverses, including the terrible drought of 1862-1864, Sepulveda sold the property for \$18,000 in late 1864 to a San Francisco merchant, James Irvine, and his partners, the sheepmen, Flint and Bixby. Irvine held a 50 percent interest, while Llewellyn Bixby and Benjamin and Thomas Flint shared the remaining half. In 1876, Irvine bought out his partners and continued agricultural use of the property.

The area known as Crystal Cove has been a seaside recreation area since after World War I. By the late 1920s, this recreational activity spawned a small, semiprivate beach resort community. Actual dating of the development and naming of Crystal Cove is uncertain and poorly documented. Likewise, other activities and usages are not unique to this area, such as use by motion picture companies in the mid-to-late-1920s, attempts at marine terrace agriculture, or World War II training activities. The major story at Crystal Cove State Park, therefore, is typical of many regions of California's coastline: agriculture and recreation.

Esthetic Resources

The dominant visual feature in the coastal portion of the park is the ocean and its shoreline. From the rim of the bluffs, extended views are available down the coast to Abalone Point and upcoast to the harbor and development around Newport Bay. During favorable weather, Santa Catalina Island can be seen off the coast. The cottages at Crystal Cove are also an important visual feature.

The ocean can be viewed at nearly all points along State Highway 1 through the park area. Motorists traveling north toward Newport Beach have a clear view of the beach near the mouth of Moro Creek (Moro Beach). Elsewhere, the beach is not visible from the highway, although some offshore rocks can occasionally be seen.

Moro Canyon is a narrow, V-shaped canyon with enclosed views. Expansive views over the ocean or over the interior valleys to the mountain ranges beyond are available from the higher ridges above the canyon.

A considerable number of power lines cross through, and run up, Moro Canyon. Most are wood structures; some are metal. In many places, the natural appearance of the landscape is marred by power poles, which are dominant features.

The sounds of the surf dominate the coastal portions of the park. Surf can be heard inland on the terraces during favorable atmospheric conditions, except in areas close to State Highway 1.

Sensory conditions in Moro Canyon differ from those of the coastal portion. Not only is the ocean out of sight in most places, but the sounds and smells of the marine environment are gone. In similar contrast, the quiet canyon is sheltered from coastal breezes during fair weather.

Resource Policy Formation

Classification

The unit was classified as a state park by the State Park and Recreation Commission in April 1980. The Public Resources Code, Section 5019.53, defines a state park as follows:

"State parks consist of relatively spacious areas of outstanding scenic or natural character, oftentimes also containing significant historical, archeological, ecological, geological, or other such values. The purpose of state parks shall be to preserve outstanding natural, scenic, and cultural values, indigenous aquatic and terrestrial fauna and flora, and the most significant examples of the ...ecological regions of California....

Each state park shall be managed as a composite whole in order to restore, protect, and maintain its native environmental complexes to the extent compatible with the primary purpose for which the park was established.

Improvements undertaken within state parks shall be for the purpose of making the areas available for public enjoyment and education in a manner consistent with the preservation of natural, scenic, cultural, and ecological values for present and future generations. Improvements may be undertaken to provide for such recreational activities including, but not limited to, camping, picnicking, sightseeing, nature study, hiking, and horseback riding, so long as such improvements involve no major modification of lands, forests, or waters. Improvements which do not directly enhance the public's enjoyment of the natural, scenic, cultural, or ecological values of the resource, which are attractions in themselves, or which are otherwise available to the public within a reasonable distance outside the park, shall not be undertaken within state parks.

State parks may be established in either the terrestrial or underwater environments of the state."

Declaration of Purpose

The purpose of Crystal Cove State Park is to make available to the people for their enjoyment the natural, cultural, and recreational values of a significant open space area on the Orange County coast.

Located amidst dense urban development along the coast, the park's relatively large size, more than 3 miles of ocean beach, and some 2,800 acres with expansive marine views and interior canyons have regional and statewide significance. Numerous archeological sites and rare plants are also prime park resources of statewide significance.

The function of the Department of Parks and Recreation at Crystal Cove State Park is to manage, protect, and, where necessary, to restore its natural and cultural resources and values for their perpetuation in accordance with the park purpose; to interpret these values effectively; and to provide facilities and services, consistent with the purpose of the park, that are necessary for full enjoyment of the park.

Zone of Primary Interest

The zone of primary interest is the area in which the department would like to influence development and use so park resources are not seriously degraded.

The zone includes all land adjacent to the park boundaries: Emerald Canyon, Laurel Canyon, Muddy Canyon, the viewshed along State Highway 1, Abalone Point, the parcel of private land between the park and Cameo Shores on the coastal terrace, and the beach.

In addition, the department is concerned about any lands, no matter how far away from the park, that can, through their development, adversely affect the resources and features the park was created to protect.

Resource Management Policies

Management of resources in a unit of the State Park System is governed by statutes, policies, and directives. In addition, specific policies for management of resources in Crystal Cove State Park are given below by resource subject. Included are previously established policies and directives that are especially pertinent to existing or potential resource problems.

Hydrologic Resources

Removal of Reservoirs

The two small reservoirs in Moro Canyon that were constructed for cattle grazing have no significant cultural or natural values. They provide habitat during part of the year for some wildlife species that are not natural to the area. Public use would reduce these wildlife values. The reservoirs are insignificant for flood control, and represent a continuing maintenance and public safety obligation.

Policy:

The dams shall be breached in a manner that is in keeping with park values. A natural stream channel shall be allowed to reestablish.

Geologic Resources

Geologic Hazard Mitigation

Geologic hazards in Crystal Cove State Park can threaten human safety and park facilities.

Policy:

Geologically hazardous areas shall be posted or the hazard reduced to the extent required to enable the public to use the areas in reasonable safety.

Structures shall be designed to minimize hazards to human health by obtaining geologic expertise during the siting and design phase of any development. All structures shall be designed to withstand a 1906-type earthquake generated either 25 kilometers (15.5 miles) east or 6.5 kilometers (4 miles) offshore.

In addition, these general guidelines shall apply:

- o Unstable or marginally stable areas shall be evaluated by a geologist before development;
- o All cuts greater than 5 feet in height and steeper than 2:1 shall be evaluated by a geologist before, during, and after grading (Chapter 70, Uniform Building Code).

Soil Resources

Bluff Protection Zone

The bluffs and the immediately adjacent terrace are highly erosive. Vegetation is fragile and sensitive to disturbance. Numerous archeological sites and two rare plants that occur in the park are also concentrated in this area. The area of greatest potential impact is broader on the terrace upcoast from Crystal Cove than on the terrace downcoast.

Policy:

A bluff protection zone shall be established to protect sensitive resources and to mitigate excessive erosion. This zone includes all bluffs from beach to terrace, except for the Crystal Cove Historic District. In addition, it shall include a 400-foot strip on the terrace top upcoast of the Crystal Cove Historic District from the rim inland, including drainage canyons, and a similar 200-foot wide strip downcoast of the Crystal Cove Historic District. Only lands to the ocean side of State Highway 1 are included in the zone.

In this zone, there shall be no parking areas or public access roads. Public access to the beach shall be on prepared and designated trails.

All formal trails in the bluff protection zone shall be reviewed by the department's natural and cultural resources specialists before their establishment. Trails that parallel the coast shall be located outside this zone when possible, with lateral spurs and loop trails to the beach and bluff rim, where appropriate.

Revegetation of the many extraneous and unnecessary existing trails and paths shall be part of establishing a formal trail system.

Model airplane flying, hang-gliding, or other recreational activities that concentrate use and destroy native vegetation shall not be permitted in this zone.

General Erosion Control

Soil erosion has been greatly accelerated in the park by heavy grazing, road building, horseback riding, and other uses.

Policy:

Destructive or unnatural erosion shall be controlled or prevented by means that are in harmony with the purposes of the park. The primary objective of erosion control shall be to prevent, rather than to cure or correct, conditions of accelerated or unnatural erosion. All measures used shall be as unobtrusive as possible, fitting naturally into the environment, with the objective of restoring the natural condition.

Steps shall be taken to correct existing erosion problems and eroded areas in the park. Revegetation of problem areas with native plants may be warranted in some areas, and shall be undertaken when needed.

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 park and the region. Plant communities such as the coastal sage scrub found on marine terraces were once widespread in the region, but are now nearly gone. In the park, this plant community has been greatly diminished and altered by past activities. Grasslands have been artificially increased by modification activities including herbicide use, mechanical removal, and grazing.

Policy:

On lands other than those supporting facilities, vegetation shall be managed toward a natural condition; that is, plant communities that result from normal successional activities. Grasslands shall be allowed to revert to scrub or chaparral where processes lead this way. In modified areas, ongoing efforts shall be made to encourage natural reclamation.

Grazing of Livestock

Heavy grazing of cattle before acquisition caused severe erosion in some areas, considerable alteration of natural plant communities (including introduction of artichoke thistle and other weeds), and general debilitation of the natural landscape. Grazing has also had a profound negative effect in grasslands, encouraging European annuals at the expense of the few remaining native bunchgrasses.

Policy:

Commercial livestock grazing in Crystal Cove State Park shall be eliminated as a noncompatible activity. Where it has taken place and modified plant communities, a program shall be established to restore the vegetation to its natural condition by natural means, if possible.

Rare and Endangered Plant Protection

Rare and endangered plants can be inadvertently destroyed by development of facilities, maintenance activities, or visitor use, especially when their exact locations, habitat requirements, and tolerances are unknown.

Policy:

All rare and endangered plants in the park shall be protected and managed for their perpetuation. A program shall be initiated before facility development to locate and accurately map the distribution of the park's two known rare plants: Dudleya multicaulis and Chorizanthe staticoides. A report on the status and management needs of each plant will be included in the program.

Artichoke Thistle Control

More than 375 acres of grassland in Moro Canyon are heavily infested with artichoke thistle (Cynara cardunculus), the result of past grazing use.

Policy:

A program shall be developed for eliminating massive growths of artichoke thistle that restrict recreational use and displace natural plant communities. The first priority of control efforts shall be in areas most suitable for recreational use, areas of more gentle terrain, and areas where native bunchgrasses can be found.

Other Exotic Plant Species Control

Exotic (nonnative) plants often compete successfully with natural vegetation, altering natural ecosystems and changing natural scenery.

Policy:

Exotic species capable of naturalizing in the wild, including but not limited to castor bean, milk thistle, and English ivy, shall be removed in accordance with policies set forth in the department's Resource Management Directives, 1831.1 (34). Exceptions include domestic plants growing in the Crystal Cove historical zone, which are covered separately under policies for cultural resources.

Protection From Wildfires

Wildfire hazard is severe throughout Southern California, particularly in chaparral environments. The extensive scrub and chaparral vegetation in the inland canyons of the park are of particular concern. A fire management plan is required for protection of park resources and for visitor safety.

Policy:

A fire management plan shall be developed for the park. This plan shall include prevention measures, fuel management, visitor evacuation and safety, and acceptable fire-fighting procedures. In addition, it shall include plans for development and maintenance of fuel breaks and fire roads to acceptable standards.

Department standards require that there be a minimum disturbance of soil and consideration of esthetic impacts in construction and maintenance of fire roads and fuel breaks.

The fact that prescribed burning may be used for fuel reduction or vegetation management purposes does not reduce the necessity for prevention and control of wildfires.

Wildlife Resources

Wildlife Management

Protection and perpetuation of natural wildlife populations is a goal in management of the park.

Policy:

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

Rattlesnake Protection

Rattlesnakes are abundant in Crystal Cove State Park, and are part of the natural ecosystem. There is concern that snake populations in other units of the State Park System have been largely destroyed because of a lack of understanding by the park staff or the public.

Policy:

Rattlesnakes shall be protected. If facilities are established close to snake concentrations, the snakes shall be transplanted to suitable, more remote sections of the park.

Signs shall be posted warning the public of snakes' presence and reminding people of their protected status.

Habitat Protection -- Water

The very small amount of surface water occurring in the park during the dry season is critical to maintenance of wildlife.

Policy:

Available free-flowing water shall not be appropriated for other uses during the dry season, from seeps, springs, creeks, or shallow wells.

Marine Life Resources

Protection of Marine Life

The large visitor influx expected at Crystal Cove State Park could affect the offshore underwater environment now designated as both a Marine Life Refuge by the California Department of Fish and Game and an Area of Special Biological Significance by the State Water Resources Control Board.

Policy:

The department shall post and enforce Department of Fish and Game regulations pertaining to the Irvine Coast Marine Life Refuge off Crystal Cove State Park, and shall embark on an interpretive program to inform the public of the reasons for additional protection provided to the marine life in this area, and its fragile nature. The department shall actively pursue the transfer of state lands offshore from Crystal Cove State Park from the State Lands Commission to the department. The department shall also request that the Department of Fish and Game designate an ecological reserve off Pelican Point pursuant to the recommendations of the Advisory Board on Underwater Parks and Reserves.

Cultural Resources

General Cultural Resources Management and Protection

Management of the cultural resources at Crystal Cove State Park is governed by statutes, policies, and directives. The following portions of the Public Resources Code pertain to management of cultural resources: Section 5019.74 (if a cultural preserve is designated); Section 5097.5; and Section 5097.9.

Specific directives from the department's Resource Management Directives that pertain to the cultural resources of Crystal Cove State Park are: 11, 24, 25, 32, 50-53, 58-60, and 63-72.

Specific recommendations for cultural resource management policies are presented by geographic areas previously discussed in the summary section.

Area 1: The Cultural Heritage Planning Unit survey team was unable to find either ORA:661 or ORA:1. Sites ORA:130, ORA:147, and CCT3 are close together, and are all suffering extensively from equestrian erosion. In addition, ORA:130 has been cut through to make a road down to the beach for security patrol activities. The ownership of ORA:660 on the far western end of the park is in question.

Policy:

The ownership of ORA:660 shall be firmly established and measures taken to protect the site if it is on state park land. Use of the beach access road through ORA:130 shall cease immediately, and another means of access shall be found to the beach. All equestrian activity shall be kept from the sites in this area. ORA:246 shall be avoided during any construction activities associated with parking for the Crystal Cove area.

Area 2: Sites in this area can be damaged by visitor use and by natural processes. ORA:323 and the associated subsites noted in the Appendix, CCT6 and 7, have been badly damaged by a variety of agricultural activities and construction of parking lots. ORA:323 is currently the site of a parking facility, and has been graded and oil-paved for a number of years.

Policy:

In accordance with the wishes of the Juaneno Band of Mission Indians, ORA:323 may be used by park visitors providing it is surface-collected, capped with an archeologically proper and agreed on material, and this action is in conformance with the intent of the Coastal Act.

ORA:324, located in Moro Canyon, suffers from both natural erosion and the cutting of sewer lines for leaching zones of the mobile home park.

Policy:

In maintaining existing facilities on ORA:324, the department shall minimize any further damage. Any future subsurface activities necessary for maintenance of the sewage treatment facility in Moro Canyon shall be carried out using proper archeological methods.

The large site, ORA:280, partially under the upper portion of the mobile home park, is suffering extensively from natural erosion and cutting of firebreaks, and has suffered from activities associated with construction of the upper portion of the mobile home park.

Policy:

The remains of ORA:280 shall be maintained in as nearly its present condition as possible. To facilitate this, it shall be the policy of the department that no subsurface maintenance activity shall take place in the upper terrace of the mobile home park without permission of the Department of Parks and Recreation and without use of proper archeological methods.

ORA:281, an extremely large site, has suffered slightly from natural erosion, moderately from cutting of firebreaks, and extensively and seriously from vandalism.

Policy:

No further firebreak cutting shall be permitted on ORA:281. The department shall patrol the site to discourage further acts of vandalism.

Area 3: Sites ORA:325, 326, 327, 328, 329, 330, 331, and ICS1 are in this area. With the exception of ORA:326, each has been cut by road construction, and is continuing to receive further damage by road maintenance activities associated with the road in the bottom of Moro Canyon.

Policy:

It shall be the intent of the department to minimize future impacts to archeological features on or adjacent to the unsurfaced road in the bottom of Moro Canyon. Use of the road above the lower reservoir shall be limited to legal access and for emergency and park patrol purposes. Road maintenance shall include only methods that protect archeological features. This specifically includes use of fill material rather than any further cutting or scraping of the road.

Area 4: This area contains three large rockshelter complexes: ORA:332, CCT10, and CCT11. The problems in Area 4 include moderate to severe vandalism of two of the three rockshelter complexes. ORA:332 is located in a remote portion of a large side canyon, and has suffered only slightly from vandalism. However, CCT10 and 11 are located on a ridge line south of Moro Canyon, and are easily accessible to vandals. Both sites have been severely vandalized. CCT10 has been vandalized through use of a rubber-tired tractor loader.

Policy:

The department shall take necessary measures to eliminate vandalism of the three large rockshelter complexes in Area 4.

Area 5: Sites in this area include rockshelter CCT13 and open air site CCT14. CCT13 appears to have suffered little or no damage from human action. CCT14 is an open air site and is easily accessible; however, at this time, it appears that little or no human activity has affected the site.

Policy:

Sites in Area 5 shall be protected from vandalism and unnatural erosion.

Area 6: This area contains the rockshelters ORA:333, CCT8, 16, 50, and 51, and open air site CCT52. There is severe vandalism at rockshelter complex CCT8. Little or no problems exist at the other rockshelters, and there is no apparent problem, except for some minor erosion, at CCT51.

Policy:

The department shall, in whatever way is necessary, restrict access to CCT8 to prevent further vandalism of the site, and shall protect further the other sites in the zone so vandalism will not take place in the future. Further, if more erosional activity occurs than at present, archeological mitigation or counter-erosional techniques shall be used.

Protection of Crystal Cove Historic District

The Crystal Cove Historic District must be maintained in accordance with the Secretary of the Interior's General Standards for Historic Preservation Projects. These standards were formulated in conjunction with the National Historic Preservation Act of 1966, and apply to all state or federally-maintained historic properties listed in the National Register of Historic Places. They detail the methods to be observed in maintaining or modifying any properties in the Crystal Cove Historic District.

Policy:

It is the policy of the department to maintain structures in the Crystal Cove Historic District in accordance with federal standards. No maintenance, modification, or removal shall take place on any structure or site in the historic district without prior approval of the director, after appropriate reviews by the department's Resource Protection Division and Office of Historic Preservation.

In a manner consistent with the purpose of the historic district, the department shall provide access as necessary for public enjoyment of the recreational, cultural, and natural values of the Crystal Cove Historic District.

To permit optimum use by the public, the department shall prepare a comprehensive description of all structures for the purpose of determining the following:

- 1) The number and location of structures that are necessary to preserve and protect the historical character of the district;
- 2) The number and location of structures that can be converted to adaptive or commercial public uses without substantial alteration of their exterior visual appearance;
- 3) The number and location of structures that should be removed to provide space and facilities for appropriate recreational activities.

Preparation of this description remains incomplete at the time of this writing. A full evaluation of the dwellings will require a thorough examination of the interior of each structure. The department's request for permission to enter the structures for this purpose was denied by the current occupants.

To insure that an orderly transition from present residential uses to public uses of the district will take place, the department shall prepare a phased development program identifying capital outlay funding priorities for development of visitor support facilities, and determining the future disposition of all structures. The program will also include a time schedule for relocation of occupants.

The Cultural Heritage planning staff was unable to determine the exact location of a Japanese village site associated with Crystal Cove, but the staff suspects that its location is east of State Highway 1 and north of Crystal Cove.

Policy:

Should development occur in this area, the department will first use proper archeological methods to determine if the Japanese village was located in this area. If so, mitigation measures will be taken.

CA:ORA:685 is a dump and trash area associated with Crystal Cove, located to the north of the Crystal Cove Historic District.

Policy:

Should development occur in this area, the department shall use proper archeological methods in determining its importance, and shall take mitigation measures if the area is determined to be significant.

Esthetic Resources

Removal of Unnatural Features

The park's natural landscapes and open space quality provide contrast from the heavily urbanized lands that surround it. Man-made features, particularly several corridors of power poles that cross Moro Canyon and equestrian facilities on the terrace, significantly reduce the park's esthetic quality.

Fence lines remaining from grazing activity also detract from the natural character of the landscape.

Policy:

It is the desire of the department to have power lines, poles, and utility access roads removed from backcountry areas of the park.

All utilities for park facilities shall be placed underground except in areas where doing so will cause significant environmental harm.

Barbed-wire fencing within the property boundaries shall be removed except in areas defining the perimeter of the park. Removal of fencing shall take place before construction of park facilities in the Moro Canyon portion of the park.

Measures shall be taken to ameliorate the esthetic impacts of the equestrian facility.

Allowable Use Intensity

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

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

The management objective for Crystal Cove State Park is set forth in the statutes defining a state park (see Classification section, page 16).

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

The third and most important component in determining allowable use intensity involves an analysis of the natural, cultural, and esthetic resources to determine the area's physical limitations for development of facilities and the ability of the ecosystem to withstand human impact (ecological sensitivity). This analysis is based on a number of considerations, including: cultural and esthetic resources sensitivity; soils and their erodability and compaction potential; geologic factors such as slope stability and relief; hydrologic considerations, including the potential for pollution of surface waters, flooding, and depleting surface and groundwater through water use; vegetation characteristics such as durability, fragility, wildfire hazard, and regeneration rates; and wildlife considerations such as tolerance to human activity, wildlife population levels, and stability. Additional considerations in determining ecological sensitivity are: rare and/or endangered plants and animals; unique botanic features or ecosystems; and examples of ecosystems of regional or statewide significance.

Based on the preceding factors, allowable use intensities for lands in Crystal Cove State Park were determined as shown in the Allowable Use Intensity Map. Five classes are shown, ranging from low to high. Also included is a general description of the types of intensity in two categories: 1) roads, trails, and parking; and 2) site facilities.

Criteria used in developing allowable use categories and the major supportive data on resource constraints and sensitivity are on file with the department.

Specific policies pertaining to recreational use or intensity of use follow.

Policy:

No concentrated use activities shall be permitted in the bluff protection zone (see policy on the bluff protection zone under Soil Resources, page 18).

Horseback riding shall be permitted on prepared and designated trails only. Seasonal closures of horse trails shall be enforced depending on trail conditions.

Bicycling shall be restricted to paved vehicle access areas or to paths immediately adjacent to them.

Off-highway-vehicle recreation shall not be permitted in Crystal Cove State Park.

USE
INTENSITY
CATEGORY

Suggested
ROADS, TRAILS, AND PARKING

Suggested
SITE FACILITIES

I	No formal roads or trails.	Not recommended for site facilities.
II	Trails, hiking and equestrian only. Specific restrictions on siting.	Unsurfaced trails, foot bridges, and other trail facilities.
III	Unpaved roads, management roads, and hiking and equestrian trails.	Walk-in picnic areas and hike-in camping areas.
IV	Surfaced roads and trails and low- to moderate-density parking.	Picnic areas and low- to moderate-density camping (vehicle and tent).
V	Surfaced roads and trails and moderate- to high-density parking.	Picnic areas, moderate- to high-density camping (vehicle and tent), visitor center, maintenance yard, hostel, equestrian staging areas, park residences, and concession structures.

LAND USE AND FACILITIES ELEMENT

Existing Land Use

Surrounding Lands

Regional land use surrounding the planning/study area is a mixture of rapidly developing residential, commercial, and industrial areas. Urban growth trends in this region are expected to continue for the foreseeable future.

Land in the planning/study area consists mainly of former agricultural lands (grazing and truck farming) which now lie vacant. Future uses identified for these areas in the recently approved Irvine Coast Local Coastal Program consist of conservation-open space, visitor-serving commercial, low- and medium-density residential, and residential recreation. The conservation-open space lands consist of 2,296 acres between the park and Laguna Canyon Road to the southwest. Two major visitor-serving commercial centers are planned for the intersections of the Pacific Coast Highway and the proposed arterials, Pelican Hill Road and Sand Canyon Avenue. Facilities at these centers will include hotels, restaurants, commercial recreation facilities, offices, and tourist shops. Low-density residential development (3,529 acres) will occur adjacent to the park's northwest boundary. In this residential development, an additional 580 acres are identified for private residential recreation. Finally, two medium-density residential areas (single-family detached or cluster housing) are proposed for sites adjacent to Cameo Shores and upper Pelican Ridge.

Park Lands

Existing land use in the current park ownership has been largely determined by the Pacific Coast Highway's division of Crystal Cove State Park into two parts: the inland area and the coastal strip. Because of very limited informal public access, inland park areas are now in a conservation-open space status, with little or no visitor use. The inland areas will remain in this status until general plan recommendations are approved and implemented. There are two inholdings in the inland area; one is the Laguna Beach Reservoir and the other is the El Morro Elementary School. As of this writing, these inholding uses are expected to continue for the foreseeable future. In addition to the inholdings, the El Morro Mobile Home Park is located around the mouth of Moro Creek. In lieu of relocation rights, the state has arranged 20-year leases for the current tenants. Removal of the mobile home park will occur after the leases expire.

Coastal strip land use consists of day-use recreation, private residential-vacation cottage rentals, parking, and an equestrian center. Day-use recreation occurs on an informal basis all along the park's 3.25-mile shoreline. The heaviest use areas are at Moro Beach, Reef Point, and Crystal Cove Beach. Residential-vacation cottage use at Crystal Cove has been identified as a significant historical use. Because of its architectural significance, the Crystal Cove community has been placed on the National Register of Historic Places. There is an existing equestrian center located on the coastal terrace between Crystal Cove and the Cameo Shores boundary. The center is scheduled to be relocated to another site outside the park.

Regional Recreation Needs Analysis

The recreation evaluation prepared for Crystal Cove State Park identified the regional recreation situation by examining statewide, regional, county, and local needs and concerns, and relating them to the park's potential and current condition. Factors that could affect future use, development, and protection of the park were also taken into consideration.

Recreation Setting

To estimate recreation demand, park planners examined regional conditions. Crystal Cove State Park is located in Planning District 8 of the California Outdoor Recreation Resources Plan (CORRP). Planning District 8 accounts for 25 percent of the state's total land area. The district's population of 10,891,200 (49% of the state's total) is distributed among Orange, Los Angeles, Riverside, San Bernardino, Ventura, and Imperial Counties. Eighty-four percent of the population is located in the Los Angeles metropolitan complex, making it the most populous area in the state. Most of this population is within a 2-hour travel distance of the park. Crystal Cove State Park's location in this setting emphasizes its attractiveness and accessibility, especially to visitors from inland areas. This situation creates a planning and management challenge in balancing recreation opportunities while protecting the resources from overuse.

Recreation Deficiencies

In examining the recreation situation in Planning District 8, an analysis was made of unsatisfied recreation demands. These demands fall into two main categories: day-use recreation and overnight-use recreation. In both of these categories, recreation opportunities are needed for all age groups, all income groups, and disabled persons.

Various sources were consulted in assessing recreation deficiencies pertinent to Crystal Cove State Park. In evaluating deficiencies, it is important to note that other recreation suppliers besides the State Park System will be responding to the deficiencies identified.

The California Outdoor Recreation Resources Plan identified a future need for basic, traditional park facilities in this region. The following table is a summary of recreation deficiencies identified in CORRP:

SUMMARY OF RECREATION DEFICIENCIES
(ORANGE COUNTY AND PLANNING DISTRICT 8)

	<u>Existing Facilities</u>	<u>Projected Deficiency for 1990</u>	<u>Additional Facilities Needed for 1990</u>
<u>Orange County</u>			
Camping Units	2,964	4,175	1,211
Picnic Units	4,036	5,831	1,795
Trails (Miles)	115	986	871

Planning District 8

Camping Units	31,595	56,841	28,292
Picnic Units	28,057	69,552	41,495
Trails (Miles)	4,744	14,332	9,588

Additional information for evaluating recreation needs was provided by the Orange County Environmental Management Agency. The agency prepared a recreation needs analysis of various regional recreation activities using a computer model to determine future recreation deficiencies. The study identified significant recreation deficiencies in 1995 for the following activities: surfing, scuba diving, horseback riding, bicycling, ocean-lake-river swimming, power boating, tent camping, picnicking, OHV use, and golf.

In addition, recreation needs were identified during the planning process through public meetings, interviews, and surveys. Respondents generally favored preservation of natural and cultural resources, and a minimum of recreation development. A broad range of recreation uses was suggested, but there was an emphasis on passive and limited recreation activities. These included: water contact activities, bicycling, jogging, hiking, nature study, photography, and picnicking. Scuba diving received strong support. Equestrian use was also favored. The response on camping at the park was mixed.

Despite the deficiencies noted in Orange County and Planning District 8, it is neither practical nor advisable to attempt to satisfy all of these deficiencies at Crystal Cove State Park. This is because of the limited land area for development, concern for protection of the park's resources, and concern for the quality of recreation experiences at the park.

This plan will, however, provide for appropriate recreation needs at levels that are compatible with the purpose of Crystal Cove State Park.

The following summary findings were established after examining the regional recreation picture:

- There is a large and increasing demand for outdoor recreation in Planning District 8.
- The quantity and types of recreation opportunities available are insufficient in this district.
- There is a critical shortage of open space, especially for recreation opportunities.
- Many people are unable to use some recreation areas because of inadequate public transportation.
- There is a high demand for recreation trail use (hiking, biking, horseback riding).
- Regional trail facilities should be expanded. DPR should coordinate in planning and funding trails and hostels.

- There is an existing and projected facility deficiency for both day-use and overnight-use activities in Planning District 8.
- Because of limited terrain suitable for development and the concern for both the resources and quality visitor experiences at the park, major portions are recommended to be left in undeveloped, natural open space.
- Water-related recreation is very much a part of life in Southern California.
- Within the limits stated above, Crystal Cove State Park can provide diverse recreation activities.

Recreation Trends

In preparing the plan, park planners attempted to determine the types of recreation activities and facilities people will want. Various factors were considered in anticipating future needs. Some considerations included current recreation use, socioeconomic trends, and general attitudes toward recreation activities and facilities.

While recreation demand in general is increasing, the character of that demand is evolving in two different directions. One direction stresses developed facilities, with structured or intense recreation use. Demand is also generated for additional scenic highways or roads near population centers. Furthermore, there is increasing pressure for facilities along the coast, programs for special populations, and cultural activities.

The other direction emphasizes less developed parks, with unstructured activities. There is a growing demand for closer access to backcountry experiences near urban areas. These recreation attitudes are reflected in some of the visitor types expected for this park. The following is a brief description of those visitor types:

Park Visitor Categories

1. Regular regional day-use visitors

- Some come to recreate in a coastal open space setting (various use intensities), and want developed day-use facilities.
- Others come to enjoy the various natural features (low intensity), and prefer minimum development at the park.
- This category will represent a majority of park visitors.

2. Sightseeing motoring tourists

- These people want to enjoy natural coastal scenery from (or near) the highway.
- These people may want some day-use facilities conveniently accessible from the highway.

3. Coastal travelers

- These people come to the park for an alternative to motels; low-cost, informal, outdoor, overnight stays (campgrounds, hostels, etc.).
- These people want convenient access from the highway, and overnight facilities that can accommodate recreation vehicles or tents.

4. Regional campers

- These people come for backcountry overnight camping experiences that are relatively close to home.

Existing Recreation

Day Use

Current recreation use at Crystal Cove State Park consists entirely of day-use activities. These can be grouped into two categories: coastal-related and noncoastal-related. Present coastal-related activities include sunbathing, swimming, surfing, sailing, scuba diving, and fishing. Noncoastal-related activities include picnicking, hiking, and horseback riding. It is expected that the overwhelming majority of future visitor use will continue to be day-use recreation.

Present day-use needs include general considerations such as park accessibility. Specifically, this includes park entrances, parking, access trails, and adequate sanitary facilities. Other immediate needs include improvement of existing beach access ramps, trail connections between inland and coastal portions of the park, and interpretive facilities to help the public understand and appreciate the resources of the park.

Overnight Use

There are now no public overnight facilities at Crystal Cove State Park. Park-type overnight use facilities are currently available at other state and federal parks in the region, but there is a continuing and growing demand for them.

Although there is a limited potential for overnight use at Crystal Cove State Park, overnight stay opportunities can offer a new dimension to the experiences available to park visitors, and they should be provided.

Proposed Recreation

The emphasis for recreation use at Crystal Cove State Park will be placed on providing a variety of appropriate recreation opportunities to enhance visitor enjoyment of the park. The proposed recreation is intended to preserve the quality of recreation experiences for visitors and allow them to appreciate the natural and cultural resource values of the park. Both day use and overnight use will be provided at Crystal Cove State Park. The following is a list of principal proposed recreation activities that should be included at the park (others may be added after evaluation of their appropriateness to the park):

Day Use

Bicycling
Fishing
Hiking
Horseback Riding
Jogging
Natural and Cultural Interpretation
Nature Study
Photography
Picnicking
Sailing/Boating
Scuba Diving/Snorkeling
Sightseeing
Surfing
Swimming/Sunbathing
Whale Watching

Overnight Use

Tent/RV Camping
Hike-in/Horseback Ride-in Primitive Camping
Hosteling (potential use)
Cottage Rentals (potential use)

Plan Objectives

1. To ensure that environmental damage caused by recreational activity and development will be held to a minimum.
2. To preserve the outstanding scenic quality and open space character of Crystal Cove State Park.
3. To provide opportunities for a variety of recreational uses of low to high intensity that will be compatible with the surroundings, and consistent with the park purpose.
4. To support and encourage proposals for increased use of alternative transportation both to reach the park and to travel within the boundaries, such as public transit, shuttle bus service, and bicycle, hiking, and equestrian trails.
5. To protect and interpret the significant natural and cultural resources of the park.
6. To increase opportunities for safe and convenient public access to sandy swimming beach areas.
7. To provide appropriate opportunities for low-intensity recreational activities in upland canyon and ridgetop areas.
8. To establish an underwater park and marine ecological preserve offshore at Crystal Cove State Park.

Proposed Land Use

Analysis and evaluation of cultural and natural resource values, together with appropriate methods required to protect those values, recreational needs and opportunities, and operational considerations all formed the basis for the land use proposals in this General Plan.

Marine Ecological Preserve

In order to provide additional protection for marine invertebrate species off the Irvine Coast, establishment of an ecological preserve is recommended. Pursuant to the recommendations of the Advisory Board on Underwater Parks and Reserves, the Department of Fish and Game will be requested to designate an ecological preserve off Pelican Point, extending offshore to the 120-foot depth line.

Underwater Park Area

The Advisory Board on Underwater Parks and Reserves recommends that the submerged lands off Crystal Cove State Park, extending to the 120-foot depth line, be included in the park. This action will provide an improved method for protection of marine resources, and will prevent commercial development of minerals. This underwater area, including the proposed ecological preserve, will be managed in accordance with guidelines contained in the California State Park System Underwater Parks Master Plan. To encourage scuba diving at Crystal Cove State Park, access to underwater areas will be provided at the Crystal Cove Historic District and at Moro Cove.

Historic District

In 1979, a group of vacation cottages and dwellings known as Crystal Cove were placed on the National Register of Historic Places. These buildings and grounds have been set aside for the purpose of preserving and interpreting a unique example of a coastal vacation community that has evolved over the past half century. The department intends to maintain structures in the Crystal Cove Historic District in accordance with federal standards for such historic properties. Recommendations for visitor use in the area will be made after the department is able to evaluate potential uses identified in the Interpretive Element (p. 62).

Other Park Lands

This term refers to all other lands in the unit that have not been designated for a special purpose. Permitted uses of these lands are in accordance with the state park classification of the unit, as well as land use designations allowed in the Orange County Local Coastal Program, and include day use, overnight use, and administrative use.

Proposed Visitor Facilities

Visitor support facilities at Crystal Cove State Park will be designed and located in a manner that will achieve a reasonable balance between resource preservation goals and meeting the recreation needs of park visitors. More

intensive developments will be concentrated at two primary locations near the ocean: Crystal Cove and Moro Cove. Moderately intensive developments will be located at key points along the coastal shelf, with the quiet canyon and upland areas reserved for non-intensive development.

To protect the high visual quality of the park setting, especially as seen from the Pacific Coast Highway, park facilities will be sited in ways that will take maximum advantage of variations in land forms and native vegetation. To the greatest practical extent, facilities will be designed to be in harmony with their surroundings.

Trails

The design concept for development of trails in the park is based on the premise that automobile use will be limited and that trails will provide the major means of access to various park areas. Less emphasis on automobile use will result in greater emphasis on enjoyment of natural and scenic features.

One of the objectives of the trail system is to provide opportunities for visitors to enjoy a diversity of park resources, ranging from sandy and rocky beaches and coves, tidepools, bluffs, and marine benchlands, to narrow canyons and rounded ridges with distant views of the ocean and shoreline.

Another objective of the trail system is to provide diverse opportunities for recreation such as sightseeing, nature study, bicycling, horseback riding, hiking, and jogging. Less athletic visitors will also have a choice of walking on level, short loop trails to scenic overlooks and other points of interest. These overlooks will be placed at strategic locations to provide safe viewing of scenic features and discourage unwanted straying off established trails.

Trail types will be designed according to criteria that have been determined for each intended trail use. The three types of trails recommended in the General Plan are discussed below:

Hiking Trails

Hiking trails will be located principally in the inland canyons and ridgetops, and will be available for foot traffic only. Wherever possible, trails will follow existing fire control and patrol roads, and will have a minimum width of two feet. In most cases, this minimum will be exceeded because of the widths of the existing roads.

Equestrian/Hiking Trails

Equestrian/hiking trails will also follow existing fire control and patrol roads in the inland canyons and on ridgetops. They will be located to provide enjoyable riding experiences in the park, and to take advantage, whenever possible, of scenic views of surrounding open space and the ocean.

Equestrian trails will also be located and designed to take advantage of future trail connections to areas outside the park, in conformance with proposed Orange County recreational trail proposals.

Interpretive Trails

Portions of the proposed park trail system will be used for interpretive trail purposes. (See page 61 of the Interpretive Element for further discussion.)

Coastal Trail

During the planning process, it became apparent that there were two design factors critical to the success of Crystal Cove State Park as a unified park. These are: 1) connecting various coastal portions of the park to each other, and 2) providing for appropriate and convenient access along the coast. The importance of these factors is emphasized by the fact that the overwhelming majority of visitor activities and facilities will be located along the coast. It was determined that a coastal trail would provide for these needs in the best manner.

The coastal trail will accommodate pedestrians, joggers, and bicyclists. The trail will consist of a 10-foot wide paved trail section with 3-foot wide decomposed granite shoulders on either side, where possible. Other design considerations such as turning radii and slope gradients will conform to Class I bike trail standards.

The following is a brief description of the proposed coastal trail alignment from Moro Beach to Cameo Shores (see Figure ___):

- At the existing Moro Beach Mobile Home site, there will be a trail turnaround and an on-grade connection to the Pacific Coast Highway and the Bikecentennial Trail. Construction of this portion of the trail will occur after the mobile homes are removed.
- The trail will use the existing Moro Creek-Pacific Coast Highway culvert as a trail underpass to connect Moro Beach and the proposed inland El Moro day-use areas.
- From the Moro Creek underpass, the trail will proceed to the present upper mobile home site (overlooking the highway), using an existing paved access road.
- From the top of the road, the trail will proceed northward along the northeast edge of the present upper mobile home site and the elementary school. Along this section, the trail will provide access to the vehicle/tent campground, the El Moro parking area, and the Moro Canyon trailhead.
- At the north corner of the elementary school, the trail will proceed westward toward the highway, along the existing service road.
- From the service road, the trail will cross over the highway on a new trail bridge.
- From the trail bridge, the trail will head upcoast along the marine terrace to the Reef Point parking area. At Muddy Canyon, the trail will be aligned next to the highway on a widened section of the highway fill.

- The trail will then proceed around the outer edge of the Reef Point parking area and toward Crystal Cove, along an existing dirt road. Visitors will have access to three beach access ramps and four vista points along this portion of the trail.
- To enter Crystal Cove, the trail will be aligned next to the highway from Rocky Bight to the present road entrance. The trail section will be built on a widened portion of the highway fill.
- The trail will then turn into the Crystal Cove Historic District, paralleling the existing access road down to the existing wooden Los Trancos Creek bridge. The trail will cross the bridge, and follow the existing road to a turnaround at Crystal Cove Beach.
- Along the Crystal Cove portion of the coastal trail will be a spur trail connecting Crystal Cove and the parcel of land just inland of the highway, next to Los Trancos Creek. The spur trail alignment will use the existing Los Trancos Creek-Pacific Coast Highway culvert as a trail underpass. From the underpass, the trail will parallel Los Trancos Creek to an existing dirt road. It will follow the dirt road northwest to the proposed Los Trancos Creek parking area.
- Continuing upcoast, the trail will proceed from the Crystal Cove road entrance along an existing access road, to the top of the upcoast bluff.
- From this point, the trail will proceed along the coastal terrace toward the Cameo Shores boundary. The trail will be set back 400 feet from the edge of the bluff, in accordance with the Resource Element bluff protection policy. At the Cameo Shores boundary, the trail will connect with the highway and the Bikecentennial Trail. Between Crystal Cove and Cameo Shores, four spur trails perpendicular to the coast will provide connections to four beach access ramps and seven vista points. In addition, the trail will provide access to parking and day-use areas proposed for this portion of the coast.

Marine Ecological Preserve and Underwater Park Area

Although these areas will require very little in the way of man-made features, provisions for safe, convenient access, especially for scuba diving activities, will be made at Moro Cove and Crystal Cove. Vehicular access, short-term parking for loading and unloading of diving gear, restrooms, dressing rooms with lockers, and showers are among the visitor support facilities to be provided.

Crystal Cove Historic District

Interpretive concepts, potential historical and architectural emphasis, and themes for the historic district are discussed in the Interpretive Element. In addition to the historical features, there are potentials for other visitor activities in keeping with the character of the area that have been identified. These include various day-use activities such as general beach-related recreation, picnicking, sightseeing, photography, painting and sketching, and nature study. Visitor parking in the historic district will be limited to a

small area for temporary parking available for scuba divers and disabled persons. A turn-around and passenger loading area for buses will be located near the entrance road and the highway. Parking for 600 cars and 4 buses will be located inland of the highway, with a pedestrian trail connection under the highway to the historic district and beach. If it is determined in the future that a shuttle service is feasible, shuttle vehicles will also use this route to move people from the parking area to various beach destinations.

In accordance with federal standards for maintenance of structures in historic districts, no new structures will be constructed in the Crystal Cove Historic District, except for interim, portable restrooms required to serve day-use visitors.

Pelican Point Coastal Strip

This area of the park represents an important resource in several respects. The high scenic quality of the beachlands and bluffs, the native vegetation (including rare plants), and the beaches and intertidal areas all have the potential of providing a variety of quality recreational and educational experiences. In order to protect these values and to ensure a high-quality experience for park visitors, the department will undertake a series of programs on the coastal strip designed to restore the native vegetation and fragile soils, and to control surface water runoff and wind-induced soil erosion. In addition, the department has determined that the highly specialized activity associated with the equestrian center and stables is in conflict with these values and objectives, and should be located away from coastline and beach-related day-use activities. In cooperation with local public officials and citizens' groups, the department is providing for relocation of privately-owned horses and the state-owned equestrian facilities to an off-site location elsewhere in Orange County.

Entrance Road and Trails

Facilities such as roads, parking areas, and trails will be located and designed to interfere the least with natural features. After entering the park from the highway, visitors will proceed past a contact station to day-use parking, which will be dispersed among four separate 60-car areas near the highway.

Contour grading, earth mounding, and judicious use of native plants will be employed to screen these areas from the highway. From the parking areas, visitors will continue on toward the beaches, picnic, and day-use areas and scenic overlooks on a network of trails and pathways designed to discourage straying off designated routes. A hard-surfaced trail roughly parallel with the highway will accommodate bicyclists and joggers who are seeking an alternative to the noise and congested traffic on the highway.

Day-Use Facilities

Four picnic areas, each adjacent to a parking lot, will be located near natural drainage courses along the coastal strip. One of these areas will be designed to accommodate group use of up to 30 people on a reservation basis. Barbecue stoves, tables, and grassy areas will be arranged informally, taking maximum advantage of natural terrain.

Existing beach access trails along the bluffs will be improved to provide safe pedestrian access from bluff top to beach. Restrooms will be located adjacent to each improved beach access trail, and as near to the beach as possible. Restrooms will also be located near the parking and picnic areas. Scenic overlooks will be placed at selected locations near blufftops and adjacent to established trails. Each overlook will be equipped with benches for those who wish to rest and enjoy the views of the ocean and shoreline.

Reef Point/Moro Beach

The beach at Moro Cove and Reef Point is expected to be the area of highest intensity of beach-related uses. This beach has proven to be a popular location for swimming, surfing, sunbathing, diving, and beach walking. This General Plan recommends that these activities be continued, and that public use and enjoyment of this area of the park will be further accommodated with the addition of visitor support facilities described below:

Vehicular and Pedestrian Access

One of the most critical needs associated with visitor use in this area is the provision of safe, convenient access to uplands and beach areas from the Pacific Coast Highway. While most of the day-use parking will be located inland of the highway, in accordance with local coastal program policy, a 300-car parking area is proposed at Reef Point. An improved entrance road and contact station will provide safe vehicular access in all seasons of the year. Visitors currently park their cars along both sides of the highway, creating a hazardous and unsightly condition.

From the parking area, visitors will proceed to other destinations using a well-defined system of trails and walkways. Pedestrian access to the beach from inland parking lots will be provided at the existing underpass at Moro Creek and, at the appropriate time, by an overcrossing near the El Morro School.

Access for the Disabled and Elderly

Disabled persons and the elderly will have access to Moro Beach by means of the pathways discussed above. The pathway at Moro Creek, which uses the existing underpass, will be wide enough to accommodate an automobile or shuttle vehicle. Disabled and elderly persons can then be transported to an area for temporary parking located between the Highway 1 fill slope and the beach.

Access for Scuba Divers

Scuba diving enthusiasts will also have use of the above-described pathways and temporary parking for access to Moro Cove. In addition, facilities for washing diving gear, showers, and storage lockers will be provided with proposed restroom buildings.

Sanitation Facilities

Wherever conditions will permit, restrooms will be located as near as possible to beach areas. Buildings will be located between the highway and the beach at Moro Cove, near the access pathway at Reef Point, and near the 300-car

parking area at Reef Point (near Highway 1). Trash receptacles will be placed as needed near restrooms, along pathways, and at strategic locations along the beaches.

El Moro Area

This area of the park, which includes upland and canyon bottom lands inland of the highway, has a high potential for a variety of recreational uses. Visitor support facilities that will be required for full public use and enjoyment of the park are discussed below:

Access and Circulation

A permanent entrance road will provide vehicular access to use areas inland of Highway 1. Because of sight distance problems, high traffic volumes, and traffic safety considerations, it was determined that the park entrance road should not connect directly with the highway. The park road will instead intersect with Sand Canyon Avenue, a proposed arterial highway intended to provide a through-route between the Pacific Coast Highway and the proposed San Joaquin Hills Transportation Corridor. Pending construction of Sand Canyon Avenue, an interim access road located next to the school will provide access to the equestrian staging area and the park maintenance area.

After entering the park near the lower end of Muddy Canyon, visitors will proceed to a 300-car, 50-truck/trailer parking area located east of the school, so as to avoid a large archeological site near the mobile home park. This parking lot will accommodate visitors destined for the beach at Moro Cove or the inland ridge and canyon areas. Parking for 4 buses will also be provided. After the mobile home park is removed, an additional parking area for 200 cars and 2 buses will be located farther on in lower Moro Canyon. This parking lot will accommodate visitors to day-use areas, the beach, or the inland Moro Canyon areas. An unpaved overflow parking area for 200 cars, located near the entrance road on the south side of Muddy Canyon, will also be available during peak visitation periods. Access to the beach will be provided by means of a paved pathway that will pass under the highway at the existing concrete underpass near Moro Creek.

Day-Use Facilities

After the mobile home park is removed, day-use activity areas and picnic facilities will be located along both sides of Moro Creek, in Moro Canyon. These areas will provide opportunities for visitors to enjoy a picnic lunch or barbecue in a quiet setting, away from the more intensive activities at the beach. Stoves, tables, grassy areas, and restrooms will be provided in appropriate locations. A day-use area for group use will also be available on a reservation basis, and will be located about 1/4 mile inland from other day-use areas. Vehicular access to this area will be provided by a paved service road.

Overnight Use

A site of about 10 acres in what is now part of the El Morro Mobile Home Park, located on the marine terrace above the highway, will be developed as a campground. After the current mobile home leases expire, most of the utilities

and necessary improvements can be adapted to campground development. Park visitors will enjoy coastal camping experiences within walking distance of Moro Cove Beach.

Approximately 60 campsites can be developed at this location. Each site will include a table, cook stove, food locker, and tent pad. Since this is the only location in the park suitable for coastal camping (RVs or tents), and to help satisfy some of the demonstrated demand for camping on the coast, this campground will be intensely developed, at a rate of 6 sites per acre.

Equestrian Staging Area and Trailhead

This staging area and trailhead will be the starting point for visitors to Moro Canyon back-country areas. Since this type of facility is somewhat specialized, it will be separated from other general public use areas. Day-use hikers, hike-in campers, and horseback riders will have access to Moro Canyon trails and destinations from this point. After parking their vehicles here, visitors can continue their journey on foot or on horseback. Vehicular access will be provided from the park entrance road leading to the El Moro Area from the proposed Sand Canyon Avenue. After parking in a 350-car and truck-trailer parking lot, hikers can either spend the day or camp overnight in Moro Canyon. Equestrian users can also spend the day on the trail, camp overnight in the canyon, or ride on to more distant destinations. In addition to the parking lot, a holding corral/hitching racks, watering troughs, and sanitation facilities will be provided. Picnic tables will also be placed nearby for those who wish to use them.

If, at some future time, a need for horse rentals can be demonstrated, and it can be shown to be economically feasible, such a service could be provided at this location. Because of the highly specialized nature of the activity, horse rentals should be limited to the summer season only, using portable stalls and equipment that can be easily transported and stored off-site in the winter months. Year-round equestrian trail use will be available to horse owners who wish to trailer their horses to the site.

Moro Canyon Area

The open space characteristics and diverse landscape features of Moro Canyon offer opportunities for a variety of non-intensive forms of recreational activity. Because of the sensitivity of natural and cultural resources in the canyon, as well as the steep terrain, visitor access will be limited to trail use only.

Trailhead and Parking

As discussed in the previous section, parking for hikers, campers, and equestrians will be provided in the zone between the school property and the reservoir. Campers will leave their vehicles here for the extent of their stay. If the need is indicated, a bus drop-off zone can also be provided here. Security measures will likely be needed to protect unattended vehicles from vandalism or theft.

Hike-In/Ride-In Campgrounds

After leaving the staging area and trailhead, visitors will proceed into Moro Canyon, using a system of hiking and riding trails. Those who wish to camp overnight will find camping facilities provided in three separate locations in upper Moro Canyon. Each campground site was chosen to take advantage of favorable topography and the scenic quality of the area. These primitive camps will be designed to fit into the surroundings with a minimum of disturbance, and will provide a minimum of facilities. Except for minor clearing of vegetation to delineate campsites, facilities will consist only of portable comfort stations and camping stoves. Water will be supplied where feasible.

Though each campground can accommodate any type of overnight user (except vehicular), two sites will include facilities such as hitching racks and watering troughs for horse campers. One site on Moro Ridge will accommodate hike-in campers only, for those who prefer not to camp near horses (see Land Use and Facilities Map, for locations of campgrounds).

Operational and Administrative Facilities

Because of the variety of visitor activities and land uses that will be available at Crystal Cove State Park, administrative facilities will be required at different locations. In addition to regular beach maintenance, there will also be several miles of trails and other visitor support facilities to be administered.

Operational and administrative facilities at Crystal Cove State Park will consist of maintenance and equipment storage yards, staff housing, and administrative office space.

Maintenance Yard

The department considered several alternatives for a suitable maintenance yard location, and concluded that a site near the LBCWD water storage reservoir will best serve this function. The facility will be accessible from an existing paved service road; at the same time, it will be well separated from visitor use areas. Water and electrical power are available in the vicinity, and can be easily extended to the site.

The facility itself will provide storage of outdoor equipment and supplies, and will include a service yard, repair shop, covered storage, and a small maintenance staff office. Most unit maintenance activities will occur at this location, or will be administered from here.

Because this facility is likely to be visible from other areas of the park and from the highway, it should be screened from view with appropriate mass planting or earth mounding.

Staff Housing

Because of the lack of suitable locations in the park, only a limited amount of staff housing will be available. The department feels that a minimum provision of housing will be necessary in order to provide adequate security when needed.

In selecting a location for housing, several factors were taken into consideration. These include minimum intrusion into visitor use areas and minimum detracton from natural and cultural resources.

One area considered appropriate for a small cluster of staff housing is located adjacent to the proposed maintenance yard in the El Moro area. Since it will be necessary to extend utilities to serve the maintenance yard at this location, it was determined that two or three mobile home sites could also be developed at this location. Whether they are state-owned or employee-owned, mobile homes can be accommodated here on a permanent basis.

In order to provide the security and management capability that will be needed, the department feels that permanent staff housing should be provided at the Crystal Cove Historic District. Further investigation will be required, however, to determine if this type of administrative use is feasible and appropriate in the historic district.

Park Offices

A total of five administrative facilities are proposed for the park:

- o Entrance kiosk at Pelican Point Coastal Strip area.
- o Entrance kiosk at Los Trancos area (parking lot and trail).
- o Entrance kiosk at Reef Point area.
- o Entrance kiosk at El Moro area.
- o Visitor orientation and unit administration office at Crystal Cove Historic District.

Entrance kiosks will consist of small check stations located on park entrance roads. These buildings will include facilities for collecting fees and answering visitor inquiries, with two-way radio for communications.

The full development and visitor use potentials of lower Moro Canyon will not be realized until after the mobile home park is removed in 1999. Because of this, the department has determined that visitor orientation and administrative facilities should be located in the historic district area. Once the department is able to complete the evaluation of possible adaptive uses of structures in the historic district, a suitable building could be designated for this purpose. Although modifications of the interior would likely be required, the architectural character of the building would be retained to preserve the atmosphere of the district.

This will be the principal administrative facility for the park, and should include:

- o Administrative office space.
- o A lobby and information center for visitor services.
- o Restrooms.

When visitor support facilities can be provided in the El Moro area, a secondary park office can be provided for this part of the park, at the proposed entrance kiosk.

Utilities

Water

Existing water supplies in and near the park are controlled by two water agencies, the Irvine Ranch Water District (IRWD) and the Laguna Beach County Water District (LBCWD). A 30-inch water main, parallel with the Pacific Coast Highway, is jointly owned by LBCWD, the City of Newport Beach, and the Irvine Company. As development of the park progresses, annexation of park lands to one or both of these districts will be necessary in order to secure a formal agreement for water delivery.

Sewage

At the present time, the park is not served by a public sewage system. There are, however, two sewer districts in the area that are capable of serving future park needs.

Orange County Sewer District No. 5 (OCSD5) is responsible for sewage collection and treatment north of Muddy Canyon. The City of Laguna Beach is responsible for sewage collection and treatment south of Muddy Canyon.

Both the Moro Cove area (mobile home park) and the Crystal Cove Historic District are now using septic systems for disposal of sewage. As development progresses in the park, facilities should be served by the appropriate sewage district. Annexation of park lands into these districts will be necessary in order to provide formal agreements for sewage disposal.

Power

Park lands are now served by existing electric power sources and facilities; these are adequate to meet future park needs. The potential for wind-generated power and solar power appears to be favorable, and should be explored further.

Concessions

Providing adequate and desirable services and facilities for use and convenience of the public at Crystal Cove State Park is an important department objective. Funds allocated to the department, however, cannot be expected to provide all visitor services and facilities that may be desired. The department's project funds will be used primarily for basic facilities such as roads, utilities, day use and picnic facilities, campgrounds, trails, buildings and equipment required for park operation purposes, and protection and interpretation of park resources. Relatively little will be spent on ancillary services and facilities such as food services, recreation rentals, and the like. When appropriate and economically feasible, these services and facilities are to be provided primarily through private capital investment.

The Public Resources Code (Chapter 1, Article 1.5, Section 5019.10) provides authority to the Department of Parks and Recreation to enter into agreements with private business and to control concession activities.

There are now two concession operations at Crystal Cove State Park: a snack stand near Crystal Cove, and a temporary park caretaker operation along the coast.

Crystal Cove Snack Stand (Date Shake Stand)

Existing Situation

The snack stand is a permanent building located along the seaward side of the Pacific Coast Highway, overlooking Crystal Cove. Coastal travelers and park visitors can purchase simple hot and cold foods such as sandwiches and non-alcoholic beverages during the spring, summer, and fall seasons.

Assumptions

Alignment of the proposed coastal trail between the snack stand and the Pacific Coast Highway will result in some increased sales from people using the trail. Trail alignment may reduce the present parking capacity of the snack stand.

Recommendation

Since it does not significantly affect park resources and provides the public with a desirable service, the General Plan recommends that the snack shack be continued in its present location and form, under a concession agreement with the department.

Tri Starco

Existing Situation

Up to January 1982, the Department of General Services has been managing Crystal Cove State Park for the Department of Parks and Recreation. Until DPR can assume management responsibility, the Department of General Services has had Tri Starco (a local concession operator) provide for operation and maintenance services along the coastal strip at the park. These services included operation of the equestrian center and operation of three parking areas. Clean-up maintenance is being done by the resident manager of the Crystal Cove Historic District.

Assumptions

The Department of Parks and Recreation assumes management responsibility of Crystal Cove State Park July 1, 1982.

Recommendation

Park operation and maintenance service should continue to be provided by a concessionaire until the department can assume management responsibility of Crystal Cove State Park.

In concurrence with resource and land use constraints and plan objectives, the following concessions services should be considered further:

Rentals

For visitors who do not own or bring their own equipment, and who would otherwise not be able to participate in certain types of recreation:

Horses for inland trail rides (also see p. 44).

Beach equipment.

Interpretation

For visitors who want to become more knowledgeable about Crystal Cove State Park, the following items could be made available by a concessionaire or cooperating association:

Juaneno Indian products and services (including arts, crafts, books, food, etc.).

Crystal Cove history and natural resource information (such as books, pamphlets, posters, etc.).

Other Visitor Services

Additional services compatible with land use constraints and plan objectives include:

A park tram shuttle (if determined feasible).

A snack bar.

Scuba diving supplies.

The department's Office of Economic and Fiscal Affairs in Sacramento is responsible for feasibility studies, contracts, and administration of concession activities. Before inviting bids from potential private investors interested in development and operation of concessions at Crystal Cove State Park, the department's Office of Economic and Fiscal Affairs will investigate and evaluate specific concession proposals in greater detail. A report and prospectus on each concession operation will be prepared.

Transportation and Circulation Analysis

Throughout preparation of the General Plan, the movement of people to and from the park and modes of transportation in the unit were key factors in determining appropriate recreational uses. Traffic volumes forecast by Orange County, and adjacent residential and commercial land uses proposed in the Irvine Coast Local Coastal Program, were also considered. Various types of transportation, both on-site and off-site, were also evaluated in planning for visitor use.

Currently, the primary access to the park is provided by the Pacific Coast Highway, which is the only link between Corona del Mar and Laguna Beach. Traffic along this section of the highway is fast and high in volume. Increases in traffic flow that would result from development of private lands for residential and commercial uses, and from development of the park for recreational uses, are of particular concern. Limited sight distance and related traffic safety problems also constrain vehicular access at certain locations along the highway. In planning for visitor use, the department has been encouraged to consider public transit, park-and-ride facilities, and local shuttle bus service as alternate transportation modes.

The transportation analysis prepared by Orange County in conjunction with the Local Coastal Program predicts that by 1995, traffic volumes on the highway will significantly increase. To accommodate the forecast traffic flows, the County Master Plan of Arterial Highways (MPAH) recommends widening of the highway from four to six lanes, and construction of the San Joaquin Hills Transportation Corridor, a proposed multi-lane highway to be located inland of the Irvine Coastal Zone. In addition, two arterial highways are proposed in the Local Coastal Program that will provide alternative routes between the proposed transportation corridor and the coastline (Pacific Coast Highway).

In the very early stages of planning for Crystal Cove State Park, it was recognized that these elements of the local transportation network will have a profound influence on public access to the park, and on the scope and location of visitor support facilities as well.

Traffic congestion on the highway is of particular concern to local communities. Conditions become especially hazardous on peak days as park visitors, who are permitted to park on both sides of the highway between 6 a.m. and 8 p.m., must frequently cross the highway to reach coastal portions of the park. It is recommended that these congested and hazardous conditions be alleviated in at least three ways:

1. Develop sufficient parking facilities near major day-use areas in the park.
2. Include elimination of parallel parking along the highway in future widening plans. Parking on the inland shoulder should be eliminated as soon as possible.
3. Encourage increased use of alternate transportation modes such as public transit, bicycles, hiking, and equestrian trails.

In keeping with local transportation policy recommendations regarding alternatives to private auto use, park visitors will be encouraged to use a variety of transportation modes to reach the park. Vehicle use in the park will be limited to day-use and family camping areas. To reach shoreline areas of the park, visitors will be expected to use an extensive system of trails designated for walking, hiking, and bicycling. To reach inland areas, visitors will use equestrian and hiking trails. In addition to the two existing RT bus stops, bus loading and unloading zones and bus parking will be provided in the vicinity of Crystal Cove and Moro Cove. When it becomes evident that increased bus service is needed, additional bus stops with seating and shelter should be provided near key developed areas.

Bicyclists will have a choice between the existing Bikecentennial Trail on the highway and a bike trail in the park running the length of the coastal shelf. Those who wish to ride horses in the park will have access to a system of trails in upland portions of the park, including Moro Canyon. Hikers will have a choice between the coastal trail and a system of trails in Moro Canyon.

The location and amount of parking to be provided was also an important consideration in planning visitor support facilities for the park. Major parking areas will be located inland of the highway, and smaller parking areas will be located on the coastal strip, to avoid visual intrusions on ocean views. Currently, there are two unpaved parking areas available for public use, one upcoast of Crystal Cove and the other at Reef Point. Both areas are located between the highway and the ocean, and will be maintained for interim public use until permanent parking facilities are constructed.

Shuttle System

Since most parking will be located inland of the highway, park visitors will be required to walk and carry their belongings to and from parking areas and the beach. The distances involved and the uphill climb from beach areas to parking lots may be too difficult and strenuous for families with small children and beach gear, the elderly, and disabled persons. To overcome this problem and to facilitate the movement of people in the park, especially at peak hours, the department considered the possibility of a tram or shuttle system.

The department's preliminary analysis has shown that a relatively high capital outlay cost would be required to provide a reasonable level of service to visitors. These costs, however, could be justified in the longer term on the basis of providing more convenient access to beach areas, as well as providing a higher-quality recreation experience. Ideally, such a system should be convenient, safe, self-supporting, and capable of transporting large numbers of people at times of peak use. Before a final decision is made regarding the feasibility of a shuttle system, it is recommended that an in-depth study be prepared by a qualified consultant.

Capacity of Facilities

Facilities to be developed at Crystal Cove State Park will accommodate a maximum of 7,480 visitors at any one time (instantaneous capacity). In general, instantaneous capacity occurs only occasionally, since most visitor use is distributed throughout the day. Typically, however, beach parks such as Crystal Cove State Park often experience a visitor turnover of approximately 2.0. This means that a total of 14,960 visitors could be accommodated at the park on a peak day.

The allowable use intensity analysis contained in the Resource Element (see p. 27.) provided the guidelines for determining the type, location, and intensity of developments. Before final site selections were determined, classification limitations, user needs and recreation deficiencies, and operational requirements were considered, along with allowable use intensity specified for each area.

Areas having a high degree of site sensitivity were avoided to the greatest possible extent. Exceptions to this objective were made, however, when overriding design considerations indicated a particular site suitability. If the design capacity level of use exceeded the allowable use intensity, appropriate mitigations that would be required to permit a higher use intensity were determined beforehand. These specific mitigation measures will become an integral part of the development program for the park. With few exceptions, the design capacity will be below the allowable use intensity level defined in the Resource Element, in order to ensure the highest quality recreation experience possible.

Proposed Plan Phasing

The General Plan for Crystal Cove State Park is intended to guide future budget programs that will enable the department to provide essential services and visitor facilities, meet management and operation needs, and meet resource needs, in an orderly sequence. Because of budgetary limitations and continuation of the mobile home park leases until 1999, these budget programs must be phased in over a period of several years. As a consequence, it can be expected that some priorities will likely be subject to change. The department's overall objective will be to provide a quality recreation experience for visitors to the park; therefore, the recommended sequence of implementation gives highest priorities to the most critical needs.

The recommended implementation program is listed below:

Phase I: Facilities (interim public use)

Improve seven beach access ramps, provide self-contained comfort stations at beaches and parking areas, provide vista points along coastal strip, provide initial development of parking areas at Reef Point, Pelican Point (2), and Los Trancos area, develop interim entrance road and equestrian staging area at El Moro, improve coastal access and Moro Canyon access trails, remove and relocate existing equestrian stables, improve pedestrian underpasses (2).

Operations

Provide staff and operations equipment as required. Provide interim park office at Crystal Cove Historic District.

Resource Needs

Conduct erosion control work along coastal strip, establish marine preserve and underwater park, conduct archeological mitigation.

Phase II: Facilities

Complete paving of parking areas, construct permanent entrance station at Reef Point and Pelican Point, improve Crystal Cove vehicular access, do initial interpretive development at Crystal Cove, establish interpretive trail on coastal strip, construct coastal trail from Cameo Shores to Reef Point parking area, develop Pelican Point parking (remaining two lots), develop Pelican Point

day-use areas (4), develop water supply and other utilities as needed, improve inland trails and trailheads, develop day-use facilities at Crystal Cove HD, provide permanent park office at Crystal Cove HD, breach dams (2) in Moro Canyon and reestablish natural stream channel.

Operations

Develop service yard in El Moro area, provide security fencing as required.

Resource Needs

Continue erosion control work, rehabilitate vegetation along coastal strip, begin cardoon control program, continue archeological mitigation as needed.

Phase III: Facilities

Construct permanent entrance road to El Moro area, construct coastal trail -- Reef Point to El Moro parking, construct El Moro parking area, develop inland Moro Canyon campgrounds, continue inland trails and vista points improvement, continue interpretive development, continue utilities development, construct permanent entrance road to Los Trancos parking area, begin Crystal Cove HD restoration program, construct inland overflow parking area.

Operations

Develop El Moro entrance station with office, provide staff and operations equipment as needed, develop mobile home pads for staff housing (adjacent to service yard).

Resource Needs

Continue cardoon control and vegetation rehabilitation programs, begin restoration of reservoir areas (Moro Canyon) and riparian habitat, continue archeological mitigation.

Phase IV: Facilities

Complete coastal trail -- El Moro area to Moro Beach, remove mobile home park, develop Moro Creek parking and access road, develop day-use facilities, develop 60-unit campground, continue Crystal Cove HD restoration, develop hostel at Crystal Cove if further study determines it is feasible.

Resource Needs

Continue archeological mitigation as required, improve riparian habitat.

INTERPRETIVE ELEMENT

Interpretive Periods

The primary historic interpretive period for the Crystal Cove Historic District is 1921 to 1940. During this period, most of the houses were constructed. This time span will allow interpretation of development of the cove community and the effect completion of the Pacific Coast Highway had on the recreational pursuits of Southern California residents. Interpretation of the architecture in the historic district will concentrate on the 1930s. The same time period should be used for interpretation of the coastal terraces used by Japanese-American farmers and the movement toward present use of the land by the Irvine Ranch Company. Events that occurred before and after this time period will receive secondary interpretation.

The primary historic interpretive period for Native American sites is c. 1100 A.D. to the time of European contact (about 1780 to 1800). Interpretation in these areas should concentrate on the lifestyle of the Juanenos before contact with the Spanish explorers.

Interpretive Themes

PRIMARY THEME I: From Ranching to Recreation -- An Island in Time

SUB-THEMES:

- A. The early years
 - 1. Native Californians in the park area -- the people, village life, use of plants and animals, trade with other peoples.
 - 2. Jose Sepulveda's Rancho San Joaquin.
- B. The Irvine Ranch
 - 1. Use of the land by the Irvine Company.
 - 2. How ranching helped preserve the land from development.
- C. The Japanese-American farming community
 - 1. Japanese migration and settlement in the Crystal Cove area.
 - 2. Crops grown and sold.
 - 3. World War II's effect on Japanese-American farming in the area.
- D. The growth of recreation on the Southern California coast
 - 1. The Pacific Coast Highway -- the cars brought the people.
 - 2. The popularity of vacation communities in the 1930s.
 - 3. Development of Crystal Cove as a vacation destination.

PRIMARY THEME II: Natural Adaptation for Survival

SUB-THEMES

- A. Chaparral and scrub communities
 - 1. Adaptation of plants and animals to low rainfall.
 - 2. Seasonal vegetation.
 - 3. Fire-dependent vegetation.
- B. Tidepool life -- adapting to tidal action
- C. Importance of the marine reserve area
- D. The intermittent riparian community

SECONDARY THEMES:

- A. The coming of the Spanish missions and their effect on Native Californians in the south coast area
- B. Introduction of exotic flora to the canyon and its impact on native vegetation
- C. Movie making at Crystal Cove
- D. Response to the wave action -- beach and bluff formation
- E. Those who lived here in the past -- fossil evidence in the rocks

Expanded Themes

Primary Theme I: From Ranching to Recreation -- An Island in Time

During the time of the Native Californians, the Spanish missionaries, the ranchos, and the Irvine Ranch, the Crystal Cove area was used primarily for ranching and food growing purposes. Building of the Pacific Coast Highway and use of Crystal Cove proper for tenting by Irvine Ranch employees and friends marked the end of an era, and the beginning of the realization of the recreational capacities of the Southern California coastline. The Irvine Company recognized this when it allowed construction of the trailer parks in the mouth of Moro Canyon and in Moro Cove, and authorized concession contracts for parking lots and equestrian use of the terraces. Recreation was the impetus to the opening of the Southern California coast to year-round residence. The relatively natural appearance of the inland portion of Crystal Cove State Park forms a sharp recreation contrast to the highway and the bustle of beach use.

SUB-THEMES

A. The Early Years

The coastal terraces of Crystal Cove State Park and the inland areas are dotted with archeological sites attributed to the Juaneno. The story of these people is not well known to Orange County residents, or to other persons who will visit Crystal Cove State Park. Their lifestyle; the kinds of homes they built; their use of the plants and animals of the area for food, clothing, and medicines; their trade with neighboring groups; their religion and social structure; and the significance of their imprint on the land should all be interpreted under this theme.

Jose Andres Sepulveda and his Rancho San Joaquin are perhaps better known to potential visitors. The size of his rancho and the present cities it encompasses provide a graphic example of the wealth he once possessed. There are several stories about Sepulveda and his passion for gambling, fine clothes, and entertaining that illustrate the way of life of the pre-Gold Rush days in Southern California.

B. The Irvine Ranch

The Irvine Company and the Irvine family have played a large part in development of Orange County and the growth of agriculture in the southern part of the state. How the property included in Crystal Cove State Park was used in the past by the Irvine Ranch and the resulting lack of urbanization is important to this theme.

C. The Japanese-American Farming Community

Use of the inland terraces of the Irvine Ranch's property between Newport Beach and Laguna Beach for truck farming by Japanese-Americans is a little-known part of Orange County history. The only remaining physical evidence of this farming are the crumbling terraces cut into the hillsides to prevent erosion of the fields. The decade before World War II saw acres of truck gardens along the Pacific Coast Highway, and roadside stands set up to sell surplus vegetables were part of a day's outing along the coast for city residents. Pearl Harbor and World War II put an end to these local institutions and the tenant farming done on this land.

D. The Growth of Recreation on the Southern California Coast

The theme of recreation on the Southern California coast is the link between the ranch land and the state park. The opening of the Pacific Coast Highway on Irvine Ranch right-of-way, use of the coves on the property for summer vacation retreats, the roadside refreshment stands, eventual establishment of the stables and other concession areas on the property -- all lead to eventual recognition of the area as an outstanding recreation spot, and provide a major theme to be interpreted in the park.

The vernacular architecture represented by the cottages in the Crystal Cove Historic District is an important sub-theme to recreation in this area. The story of how these cottages grew from tents to thatched-roof huts to full houses because of the enjoyment the residents got out of their summer holidays spent in the cove explains the powerful lure the ocean beaches have for people as vacation destinations. Vacation areas like Crystal Cove were very popular in the 1930s.

PRIMARY THEME II: Natural Adaptation for Survival

The plants and animals that live in the scrub and chaparral hillsides of Crystal Cove State Park are adapted to lack of water, heat, sudden strong rainfall, and periodic desiccating winds. Only species that can adapt to these arduous conditions have survived and live in the area. Life along the shoreline is just as difficult. Tidepools contain residents that are adapted to changes in salinity and fluctuating water temperatures. The marine preserve area represents a reef habitat that is disappearing from the California coastline. Its residents have adapted to the wave and tide action in order to survive.

SUB-THEMES

A. Chaparral and Scrub Communities

To some visitors, the brushy hillsides and grassy valley floor of Moro Canyon and the adjoining canyons will seem devoid of life. Revelation of the many different life forms in these areas and the ways they have adapted to their harsh surroundings is an important interpretive topic for this part of the park. The adaptive techniques these plants and animals have used are applicable in many instances to human life in Southern California's Mediterranean climate.

The lush seasonal vegetation brought out by the annual rainfall is often the only flora of interest to visitors. Spring is the most beautiful time of year, when the wildflowers are in full bloom and the air is full of humming insects. Brief as this time is, it plays a vital part in the life cycle of the chaparral and scrub communities, and should be fully interpreted.

Fire also plays an important part in the life cycle of the chaparral and scrub communities. This theme is one that should be of particular interest to visitors who live in areas of chaparral and scrub foliage.

B. Tidepool Life -- Adapting to the Tidal Action

Tidepool observation is a very popular pastime with beach visitors. Their visits can be enhanced by interpretation of the types of animal life found in the pools, and information about their adaptation to the fluctuation in salinity and temperature.

Indiscriminate removal of these tidepool organisms is a persistent problem in beach parks. Interpretation concerning the organisms and their value to the ecology of the ocean can help solve this enforcement problem.

C. Importance of the Marine Reserve Area

Poaching of marine organisms from the marine reserve along the coastline is as much a problem as unrestricted tidepooling. Again, interpretation of the reasons behind preservation of these areas can help educate the public.

D. Intermittent Riparian Community

The riparian community in Moro Canyon is seasonal in nature. During the winter and spring, and sometimes the first part of summer, the small creek in the canyon will have water in it, and the plants along its banks will flourish. But when the water dries up, the plants die back, and the animals that have depended on this source to survive find their water elsewhere. Although this life cycle is brief, it is important to the ecology of the canyon as a whole, and its interpretation is part of understanding the adaptation for survival that is necessary in the natural world.

SECONDARY THEMES:

A. The Coming of the Spanish Missions and their effect on Native Californians in the south coast area.

Before the coming of the Spanish missionaries, there was a thriving Native American community in Orange County. Most of the natives were taken to the missions, and became part of the mission life. The few who remained in the wild parts of the country eventually died out. Today, the Juaneno are actively working toward recognition of their people and heritage.

B. Introduction of exotic flora to the canyon and its impact on native vegetation.

When the first European settlers came to California, they brought with them the seeds of the grasses they had grown for grazing of their stock. Eventually, these introduced species took over the grasslands, and native vegetation was excluded. This introduction is very evident in Moro Canyon and on the hillsides and terraces adjacent to the Pacific Coast Highway.

In addition to the European grasses, there is also a substantial community of plants that have spread from the trailer park at the mouth of Moro Canyon. These plants include the Castor Bean tree and a variety of annual bulbs, ivy, nasturtium, and ice plant, among others. Interpretation of the problems these plants cause in the natural succession of plant communities should be provided.

C. Movie making at Crystal Cove

It is popularly believed that silent movies with South Sea Island backdrops were filmed at Crystal Cove in the late 1920s and early 1930s. Although little concrete evidence has been found to substantiate this, it is true that silent movies were filmed all along the Orange County coast. Without attributing a specific movie to the Crystal Cove location until further research is done, the use of California coastline locations to film exotic backgrounds can be interpreted at Crystal Cove State Park.

D. Response to the wave action -- beach and bluff formation

The mysterious disappearance of the sandy beaches during the winter and replacement with cobblestones is an intriguing riddle to many people. The explanation of this phenomenon of wave action can be interpreted with real examples at the beaches of Crystal Cove and Moro Cove. Wave dynamics also play a large part in formation of the bluffs that back the beaches and reclamation of the resulting sand for new beaches down the coast. This is also visible at Crystal Cove State Park.

E. Those who lived here in the past -- fossil evidence in the rocks

The historic geology of the Crystal Cove area is exemplified by the fossil remains of mollusks, echinoids, and foraminifera in deposits throughout the park unit. Interpretation of the parts these organisms played in formation of the coastal land should be undertaken at this unit. The folding of the rock in the coastal bluffs is also an interesting and picturesque theme.

Methods and Media

The location of Crystal Cove State Park in a highly urban area, and the pending encroachment of development on the property, has led to the decision for minimal development in the park. In harmony with this, any interpretive development that takes place should be the minimum needed to accomplish the goal. Extensive interpretive facilities are not recommended and are, in fact, discouraged. Interpretive development should take place in conjunction with proposed day use and overnight facility construction, and should not consist of separate facilities.

Personal services, self-guided trails, and graphic interpretive displays are the most appropriate methods for the unit. These can be used to illustrate the natural and cultural history of the area without excessively affecting the sensitive environment.

The present residents of Crystal Cove have worked with local school groups in the past to present environmental education programs dealing with tidepools and marine life. There are also environmental awareness groups such as the Friends of the Irvine Coast who have conducted guided walks in the Moro Canyon area. These interested local residents would be an excellent base group to

start a cooperating association and docent program. Their past interest in the Crystal Cove area has indicated a willingness to work on a volunteer basis to educate the public on the values of this part of the Southern California coast. Expansion of these tours to include the coastal terraces, bluffs, and beaches should be encouraged.

Graphic interpretive displays are proposed for day-use and overnight facilities. These exhibits should deal with the natural and cultural history of the inland and coastal portions of the unit. They will also be used by personal services volunteers and staff as supplements to their programs.

Separate interpretive trails are not suggested. The present network of roads that crosses the inland portion of the park, and the proposed recreational trails in this plan, are sufficient to handle the needs of interpretation.

Audiovisual programs are not proposed at this time for Crystal Cove State Park. There are no facilities available for this type of presentation, nor is construction of any proposed. Until an evaluation can be completed of the cottages in the Crystal Cove Historic District and the suitability of those buildings for interpretive purposes determined, it is premature to propose adaptation of any of the buildings for use as an audiovisual or visitor center facility.

An environmental living program to interpret the lives of Native Americans, the residents of Jose Sepulveda's Rancho, and early-day Irvine Ranch employees would be appropriate for the Moro Canyon area. The canyon is sufficiently isolated from urbanization to give the sense of retreating back in time that is essential in such programs.

Interpretive Services

South of Highway 1:

The beach, bluff, and terrace portion of the park are expected to be the destination of most visitors to Crystal Cove State Park. To take advantage of the presence of large numbers of people in these areas, and to interpret the natural and cultural history of the park, most interpretive panels should be located in the coastal terrace day-use areas and at the proposed viewsites. The themes of recreation growth on the Southern California coast, Native Americans' use of the beaches and bluffs, and the importance of the marine preserve area can be covered on these panels. Kiosk-type panel arrangements should be used to shelter the panels from the weather, and to act as focal points for visitors.

A self-guided walk interpreting the bluff and terrace plants and animals is also suggested for this area. The secondary themes of beach and bluff formation and fossil life forms would also be appropriate for trails here. The same self-guided trail can be used by groups participating in guided walks led by volunteer or ranger staffs. Any self-guided trails should be part of the trails proposed to viewpoints in the development plans. Additional trails should not be constructed because of erosion problems on the bluffs.

Crystal Cove Historic District:

The primary drawing points of the Crystal Cove Historic District are the cottages and the 1930s atmosphere that surrounds them. A variety of guided and self-guided walks are proposed for this area, with topics such as vernacular architecture, development of the cove as a community, and the secondary theme of use of this portion of the Orange County coastline for early movie backdrops. These themes will also be brought out in interpretive panels in the day-use area at the entrance to the cove. The panels should be free-standing, and would draw heavily on old photographs of the Crystal Cove area for graphics.

Cottages with particular points of interest about their residents or their design and construction should have interpretive signs placed in front of them. Some specific examples of cottages that should be signed are: #34 (park #40), the former Japanese schoolhouse; #18 (park #42), the oldest cottage; #12 (park #23), whose front windows came out of a streetcar; and #45 and the store (park #s 17 and 15), the original and present store buildings for the cove. The signs used for this purpose should not be large, but should give basic important facts about the buildings, perhaps illustrated with period photographs.

Adaptive uses for the cottages, other than continuation of their present use as residences, cannot be determined on a house-by-house basis until access is granted to the interior of each building. A number of uses have been proposed, including: hostels, a visitor center, a docent administration center, an environmental education display, concessionaire-operated shops or rental units, and house museums. These proposed uses may or may not fit the cottages, but this cannot be determined without further investigation.

Construction of new buildings or addition of trailers should not be done. The present buildings should be used for any facilities needed in the historic district. The exterior appearance of the buildings cannot be modified, i.e. remodeling, additions, etc., due to the status of the district on the National Register of Historic Places. The interiors may be modified, but the district's exterior integrity must not be disturbed.

The proximity of the historic district to the beach makes it an ideal base for environmental education programs on marine life. Such programs can take the form of tidepool walks, Junior Ranger programs, marine preserve tours in boats or underwater with experienced divers as guides and participants, beach and bluff formation talks, and investigations of intertidal and beach wash debris. These programs can be either guided or self-guided with the assistance of brochures or explanatory panels. Free-standing panels interpreting these themes should be located in the day-use area to place them close to the actual examples, but not disturb the view of the beach.

Moro Cove:

Interpretive programs recommended for Moro Cove are essentially the same as the environmental education programs proposed for Crystal Cove. The themes of tidepool life, beach and bluff formation, intertidal and beach wash debris,

and marine life can be covered in this area. Again, both guided and self-guided presentations are appropriate, as are Junior Rangers or similar environmental education programs. Interpretive panels are not proposed for this area because of the small area of land available for public use (other than the seasonally shifting beach sand).

Inland Areas:

The inland parking area across Highway 1 from Crystal Cove is the site of some buildings constructed by Japanese-American farmers who lived in this area before World War II. Adjacent to this parking area, or in a pull-out area off the highway, interpretive panels should be placed to explain the use of this area for farming by Japanese-Americans, and the effect of World War II on this community. Examples of the terracing done for the crops will be visible from the parking area and are visible from the highway now; these should be pointed out to visitors. Panels should discuss the types of farming done, the crops grown, and the markets sold to. The popularity of roadside markets with beachgoers should also be covered. A set of free-standing panels adjacent to a good example of terracing would be most appropriate. If the Irvine Company completes the development it is proposing for this area, it will be necessary to use historic photographs of the terracing to explain the past appearance of the hillsides. Such photographs could be mounted on the proposed interpretive panels.

Day-use and camping areas in lower Moro Canyon are good starting points for guided and self-guided walks in the canyon and valley. Past uses of the land by the Juaneno and by ranchers, adaptation of native plants and animals to the low rainfall, seasonal vegetation, introduction of exotic plants, and the intermittent riparian community are all important themes to be interpreted on these walks, by brochures or by a volunteer or ranger interpreter.

An equestrian self-guided trail is suggested to start at the proposed equestrian staging area and lead into the canyon. It should deal with both the natural and cultural history visible from the back of a horse, with some emphasis on use of horses by the Spanish and American ranchers on the property. Construction of additional trails besides the present ranch and fire roads and utility access road is not suggested. Existing trails pass through a variety of areas, and can be adapted for interpretive use.

Camping areas in upper Moro Canyon and the proposed expansion area are also good staging points for interpretive trails. Here, the emphasis would be on chaparral and scrub life forms, and on the overall interrelationships of the area's urban and rural patterns, as visible from the ridges. Because these trails will be used by both hikers and equestrians, any interpretive trails should be usable by both groups. Termination and turnaround spots should coincide with the scenic viewpoints noted on the development plans.

Interpretive signing is proposed for the scenic points at the upper end of the canyon. These points provide an excellent overlook of the Irvine Ranch property, the ocean, and the surrounding urban areas. Signing here should consist mainly of locator maps, with some information on the extent of the Sepulveda and Irvine holdings when they were in their heyday.

An environmental living program could be located in any of the camping areas proposed in the General Plan development. Use of interior camping areas would be appropriate to interpretation of the lifestyle of the Native Americans and the Rancho period because of the sites' removal from urban influences. If these innermost areas were used, transportation for equipment used by the groups would have to be arranged, either by park vehicles or on horseback.

Interpretive Collections

At this time, no collection items have been identified in Crystal Cove State Park. In the future, when the department conducts a more intensive evaluation of the Crystal Cove cottages, items that would qualify as interpretive collections may be located.

Interpretive Priorities

Listed below are the interpretive needs for Crystal Cove State Park, in priority order. These priorities are based on the projected development phases for the park:

1. Formation of a cooperating association/docent group -- continuation should be sought of the volunteer-conducted tours of Moro Canyon and the environmental education programs at Crystal Cove beach organized by volunteers. These tours should be augmented by ranger staff assigned to the unit. When further information is available on the history and architecture of the Crystal Cove Historic District, tours should be planned in that area.
2. Evaluation of the houses in Crystal Cove for their interpretive adaptive uses. This is necessary before proposals can be made for use of these structures. If decisions are made for interpretive uses for these buildings, their adaptation should be worked into this priority system.
3. Designation of guided and self-guided trails, and subsequent preparation of the signs and trail brochures needed. Because of the projected high use of the beach, bluff, and terrace areas, these trail systems should be prepared first. Moro Canyon facilities should be developed at the same time as construction of the day-use, camping, and equestrian staging areas in the canyon.
4. Panels and interpretive signs: Interpretive panels should be constructed for the bluff, the beach, the terraces, the Japanese-American farming site, and the Crystal Cove Historic District as development in these areas takes place. Signing of significant individual houses in the historic district should occur after evaluation and research of these buildings is completed. Panels for inland day-use and overnight areas should be prepared at the time of development of these sites.

5. Formal environmental education, environmental living, and other programs: Although it is expected that environmental education in the form of guided walks, campfire programs, Junior Rangers, and other similar programs will take place at Crystal Cove State Park during the first phases of interpretive development, formal programs will require more planning and development of contacts with school groups in the surrounding communities. Because of the staff time involved, this item is low on the interpretive development priority list.

OPERATIONS ELEMENT

Present Operation

At the present time, Crystal Cove State Park lands are being managed by the Department of General Services, Division of Real Estate Services. Basic visitor support facilities and services such as day-use parking, portable toilets, beach cleanup, and equestrian center operation are being provided under contract with local private and public entities. Other services provided include resource management, law enforcement, and emergency aid and rescue (lifeguard) service. These activities have dominated operation of the park since land acquisition was completed in December 1979.

Visitor use has steadily increased since the unit was classified as a state park in early 1980. The most popular activities include ocean swimming, surfing, scuba diving, sunbathing, horseback riding, hiking, and sightseeing. Most of these activities are beach-related, and this pattern of visitor use is expected to continue.

Future Operation

When the Department of Parks and Recreation assumes management responsibility for the park, operations activities are expected to require that even greater emphasis be placed on law enforcement, public safety, and public information and interpretation. Because planned recreation uses and facilities are largely ocean-oriented, primary operation and management plans will be directed toward patrol and maintenance of beach and coastal terrace zones. Patrol and maintenance of inland areas (Moro Canyon) will concentrate on resource management and protection and trail maintenance.

Administrative Needs

Support facilities that will be required to carry out administrative functions in the park are discussed on page 45, Operational and Administrative Facilities.

Visitor Services and Visitor Control

In addition to basic services provided at similar coastal park units, emphasis will be placed on interpretive services and programs. Guided tours, nature walks and lectures, and operation of interpretive facilities will require trained personnel. Development of internships, volunteerism, and docent programs should be encouraged to provide a quality level of service.

Protection of natural and cultural resources of the park (as in all units of the system) is of paramount importance at Crystal Cove State Park. Several sensitive features such as rare plants, Native American sites, and marine and terrestrial wildlife habitat are among the resources that will require special attention. Visitor movement and activities in these areas will be controlled to protect these resources from indiscriminate use.

ENVIRONMENTAL IMPACT ELEMENT

The Environmental Impact Element reflects the general nature of the project. The General Plan for Crystal Cove State Park is broad in scope; therefore, the Environmental Impact Element is also a broad assessment of the potential impacts.

The Crystal Cove State Park General Plan is intended to function as a decision-making guide that will clarify and direct the ongoing process of development and maintenance of the recreational potential of the unit. The General Plan includes goals and objectives, policy positions, and planning proposals that interrelate to achieve the functions described. The analysis of environmental impact here focuses on the planning proposals, since they provide the most detailed, and therefore the most measurable, aspects of the project. It is essential that readers be familiar with the entire document -- the Resource Element, Land Use and Facilities Element, Interpretive Element, Operations Element, and Environmental Impact Element -- in order to thoroughly understand the analysis set forth in this report. To avoid needless repetition, the Environmental Impact Element incorporates by reference information contained in preceding elements of the plan.

An explanation of the interdependence among these planning elements may help readers realize why the entire document should be studied as a whole. The first step in the planning process consists of assembling the inventory of the cultural, natural, and recreational resources within the project boundaries. The inventory of resources is then critically analyzed in terms of the purpose, philosophy, and objectives of the State Park System unit, and specific policies for management of the resources. The Resource Element delineates the scope of project development. The character of development proposed for Crystal Cove State Park reflects the policies set forth in the Resource Element; facilities have been selected that will promote public use and enjoyment of the unit without significantly impairing its natural and cultural features. The Environmental Impact Element is a vital part of the planning process; it is not merely an isolated enumeration of impacts.

In assessing the potential impacts, our policy has been to consider as broad a spectrum as we can. If there are any doubts concerning the degree of impact, we assume the worst possible case.

This General Plan for Crystal Cove State Park also covers in detail the interim facilities for which \$2 million has been appropriated; thus, no subsequent budget package will be prepared for this phase. The latter phases of development will be covered in a broader nature; whenever a specific phase of the overall plan is budgeted and proposed for implementation, more detailed and specific CEQA documentation will be prepared for that particular project, as part of the budget package.

This General Plan should be regarded as the Draft Environmental Impact Report, presented in compliance with the California Environmental Quality Act and the state EIR Guidelines.

In accordance with state EIR Guidelines (Title 14, Section 15066, California Administrative Code), the Department of Parks and Recreation circulated a Notice of Preparation (SCH #81072350, Crystal Cove State Park General Plan)

for a 45-day review period (7-21-81 to 9-5-81). Comments to the notice were received from various responsible agencies, local government agencies, and organized groups.

Description of the Project (See Land Use and Facilities Element)

Local/Regional Setting

See pages 1 and 2.

Description of the Environmental Setting

The Resource Element offers a description of most aspects of the environmental setting of Crystal Cove State Park. The following factors are included here, in addition to information contained in the Resource Summary and Evaluation.

Geology

Crystal Cove State Park is underlain by marine sedimentary rock formations that have been locally intruded on by dikes and sills of andesite and diabase. These marine sediments are covered with a relatively thin layer of other deposits.

The central coast section of Orange County is an active geologic region, with the closest fault to the park 1.6 km (1 mile) offshore. Low-lying areas are subject to tsunamis resulting from offshore seismic activity. A more specific analysis of the geology of the park is contained in the Geology Section of the Resource Element.

Soils

Refer to the Resource Element.

Climate and Weather

The Irvine Coast area has a Mediterranean-type climate with mild winters, warm summers, moderate rainfall, and generally year-round sunshine. It is situated in an area called the Maritime Fringe, characterized by average winter temperatures ranging from 45° F at night to 65° F during the day, and average summer temperatures ranging from 68° F to 75° F during the day.

Prevailing winds in the area consist of sea breezes from the southwest below 15 mph about 96 percent of the time and below 4 mph about 52 percent of the time. Occasionally during the spring and fall, the Santa Anas, which are warm, dry, strong winds, blow as high as 60 mph. These winds bring warm, dry desert air to the coast, and increase the fire hazard in areas with heavy plant cover.

In the Southern California Air Basin, temperature inversions (pollutants in a relatively cool air layer, trapped beneath a warmer air layer) are common. They occur at ground level or at various altitudes above the land surface, and there may be more than one inversion layer at one time. Ground-level inversions tend to break with daylight heating (these morning inversions occur about 320 days per year), but higher-altitude inversions tend to be more persistent. These inversion layers also influence and are influenced by wind patterns.

Hydrology

Crystal Cove State Park contains no year-round streams. Streams run for a limited time following a rain, depending on the intensity and duration of the rain.

The main watershed in the park is Moro Canyon, which contains about 678 ha (1,672 a). All of Moro Canyon is in the park.

The lower reaches of Muddy and Los Trancos Canyons traverse the park west of Highway 1. These intermittent streams drain 400 - 600 ha (1,000 - 1,500 a) respectively. Changes in the hydrology of these canyons could cause significant impacts to the park.

The Resource Element, Hydrology Section, contains a more detailed analysis.

Biota

Flora

One rare plant listed by the California Native Plant Society, Turkish rugging (Chorizanthe staticoides), is found growing on the bluffs in the park. The State Endangered Plant Program has opted not to list the plant as rare or endangered.

Two rare dudleyas are reported in Laguna Canyon, which is about 1.6 km (1 mi) to the southeast. Dudleya stolonifera is on the state Endangered Plant Program list. The presence of this plant in the park has not been established; however, it is highly probable.

Five specimens of an unusual hybrid oak are found in Moro Canyon. These oaks seem to be a cross between a valley oak and a scrub oak, and may be of scientific importance.

Additional information concerning the flora of Crystal Cove State Park can be obtained from the Resource Element.

Fauna

The 1,129 ha (2,791 acres) of land in the park contain coastal and inland areas that provide habitat for a variety of species of birds, mammals, and reptiles.

No rare or endangered species, as classified by the state, are known to live in the park. Several species of rare and endangered species pass by or live close to the park.

For a listing of fauna found in the different habitats in the park, refer to the Resource Element.

Marine Life

The nearshore waters of Crystal Cove State Park are part of the Southern California Bight System.

Past area studies have listed a total of 745 species of marine life, including algae, invertebrates, and fish. A variety of marine life is found in small, rocky reefs scattered offshore. The Irvine Coast Marine Life Refuge was established by the California Department of Fish and Game, and the Irvine Coast Marine Life Refuge Area of Special Biological Significance, designated by the California Water Resources Control Board, is located adjacent to and just offshore of Crystal Cove State Park.

For detailed information on the types of marine animals found in the area, refer to the Resource Element.

Air Quality

Air quality of the Irvine Coast area and Crystal Cove State Park is good. Air quality at the Costa Mesa Monitoring Station, located 8.3 km (5 mi) to the west, is similar. Carbon monoxide (CO) and lead (Pb) levels are expected to be lower for Crystal Cove State Park than at Costa Mesa, due to its proximity to the ocean and the lower population density. Ozone levels are expected to be about the same for both areas.

The air quality of the Irvine Coast area varies from year to year, but the annual maximum concentrations of most pollutants have not changed much since 1975. State air quality standards for oxidants and total suspended particulates were exceeded during the period of 1977 - 1980. Other pollutants measured at the Costa Mesa Monitoring Station (Pb, CO, NO₂, and SO₂) did not exceed state standards during the same period of time.

There are no stationary sources of pollutants located in the Irvine Coast area that significantly affect the air quality. Motor vehicles generate most air pollution along the Irvine Coast.

Occasionally, the Santa Ana winds, which blow during the spring and fall, transport pollutants from the Southern California Air Basin out over the ocean, where northerly breezes blow the pollutants back toward the shore to the San Diego Air Basin. This decreases the San Diego Basin air quality, and increases the ambient air quality of the Irvine Coast.

Two types of inversions occur that affect air quality of the Irvine Coast area.

The first type forms when air in the high-pressure center off the coast sinks and warms. A marine/subsidence inversion forms as a thin layer of marine air moves under the warm air mass, near the coast. The marine/subsidence inversion traps emissions in a shallow layer near the ground. As more pollutants are added, this layer reacts with the sunlight and produces photochemical oxidants (ozone).

The second type of inversion occurs on clear nights with light winds, when air comes in contact with the cool ground. This is a radiation inversion, which causes poor localized spreading of pollutants. Higher pollution levels result near the ocean as the polluted air mass moves toward the coast under light offshore winds.

Noise

Present sources of noise in the Irvine Coast area consist of automobile traffic on the Pacific Coast Highway and occasional aircraft.

Existing noise levels generated by traffic on Highway 1 (assuming a traffic volume of 25,000 average daily traffic (ADT) at speeds of 50 mph) are: 70 dBA (a weighted decibel level) at 65 feet from the centerline of the highway; 65 dBA at 140 feet; and 60 dBA at 305 feet. As a reference: at 60 dBA, noise interferes with normal speech, and stress reaction occurs at 70 dBA.

The distances of existing and proposed developments from the Pacific Coast Highway are as follows: El Morro School, 350 feet; Crystal Cove Historic District; 300 feet; Moro Canyon day-use area, 400 - 500 feet; and Moro Beach, an average of 200 feet.

The Irvine Coast area does not lie in the flight path of the Orange County Airport, but occasional military aircraft fly over the area, and some commercial aircraft fly over at very high altitudes.

Land Use

Crystal Cove State Park is surrounded by commercial, residential, and industrial areas. There is little development in the park itself, and development that does exist is concentrated mainly on the ocean side of Highway 1.

The present oceanside development consists of a large commercial horse stable (slated for removal), the Crystal Cove Historic District, a roadside refreshment stand above the historic district, three unimproved parking areas on the coastal terraces, and the El Morro Mobile Home Park. On the inland side of Highway 1, there is the El Morro Mobile Home Park and two inholdings, the El Morro School, and the Laguna Beach Water District reservoir. The Orange County General Plan has the entire park area zoned open space. Areas surrounding the park are zoned a mixture of rural residential (1.0, 1.2, and 1.5) and open space (5.0, 5.1, and 5.2), as indicated in the Land Use Element of the Orange County General Plan.

The north west of Crystal Cove State Park is proposed by the Irvine Company for residential development, to include low, medium, and high density. The proposed Las Trancos Creek parking area will be flanked by a visitor service center proposed by the Irvine Company. The area between the west boundary of the park and Cameo Shores is also slated for development by the Irvine Company.

Before state ownership, the inland portion of the park was used for grazing by the Irvine Company.

The federal government has been examining the possibility of creating a 4,800 ha (12,000 a) Orange Coast national urban park. Creation of this unit adjacent to Crystal Cove State Park is not being actively pursued at this time.

Orange County is currently processing an environmental impact report for a dedication and development agreement (DDA) for the Irvine Coast Property. As part of the DDA, the Irvine Company is willing to dedicate 1,600 ha (2,650 a), including all of the Emerald Canyon watershed, to the county. This area is east of Crystal Cove State Park.

Human Community Factors

Population

In 1980, the population of Orange County was listed as 1,931,570. The city of Laguna Beach to the south of the project area had a population of 17,860, and Newport Beach to the north showed a population of 65,300. In the project area, there are 46 cottages and a 294-space trailer park, for a total of 340 dwelling units. Orange County estimates the per-dwelling unit density as 3.0 persons, giving the project region a population of approximately 1,020.

The 1976 Special Census conducted by the county gave a median age estimate of 27.1 years for the county as a whole. Age information was not available from the 1980 Census, nor was age information available for individual cities.

Community Development

The SCAG-78 Population Forecast predicts an Orange County population of 2,758,000 in the year 2000. This is a 48 percent increase over the 1980 population. Newport Beach is predicted to grow by 20 percent in the same period. Some of this growth will occur through planned development of a low-density residential area north of Crystal Cove State Park.

All people currently residing on state park lands will ultimately be required to move, and the cottages will be preserved as a historic district. Trailer park residents have leases through 1999, at which time the land will be converted to a campground and day-use facilities.

Economics

In Orange County, the largest employment categories are retail trade; services; state and local government; aerospace manufacturing; and finance, insurance, and real estate. Seventy-four percent of Orange County residents working in California are employed in Orange County.

The 1977 GNP estimates the county median income as \$7,128. The city of Newport Beach, north of the project area, has a median income of \$11,683, the highest in the county. Laguna Beach's median income ranks second at \$10,003. In County Statistical Area F (which includes Costa Mesa, Newport Beach, Laguna Beach, and the City of Irvine), 32.4 percent of the homes have a resale value of \$60,000 or higher, the largest proportion in the county.

Public Services

Water and Sewage

Existing facilities in the state park are currently served by the Irvine Branch Water District (IBWD) and the Laguna Beach County Water District (LBCWD). Water is delivered via a main transmission line that runs under the Pacific Coast Highway from Newport Beach to Laguna Beach. There are service connections from the main line to the trailer park at Moro Cove, the equestrian center, the El Morro School, and the Crystal Cove Historic District. The only transmission lines located away from the Pacific Coast Highway are located in the Laguna Beach area.

Water service is available for the proposed facilities, but it has not been decided which water agency will serve the area. The park is located in the jurisdiction of both IBWD and LBCWD.

The trailer park, the equestrian center, the Crystal Cove Historic District, and the El Morro School are served by their own septic systems; no public sewer is located in or near the park.

The closest public sewer system in the LBCWD is located at Emerald Bay, and the closest sewer system in IBWD is at Cameo Shores.

Traffic

Primary access to the state park is by way of the Pacific Coast Highway (Highway 1), which links Newport Beach and Laguna Beach. The highway is a four-lane road (two lanes each direction), with a center left turn lane. There are eleven access points onto the Pacific Coast Highway between Cameo Shores and the north city boundary of Laguna Beach. Nine of the eleven points are now being used.

People visiting the park can park either in the two concession-run parking areas or along the shoulders of the Pacific Coast Highway between the hours of 6:00 a.m. and 8:00 p.m. The current charge for parking in the established parking lots (Reef Point and 3.5 Mile Area) is \$2 per car. Many people prefer to park along Highway 1 rather than pay the parking fee. The parking areas do not normally fill to capacity, but the shoulders of the highway become lined with cars.

Traffic on the Pacific Coast Highway through the park is operating at a level of service "C", moving at 40 mph or more. Visitors parking along the inland side of the highway must cross four lanes of traffic to get to the coastal portion of the state park; this is a hazardous situation, for pedestrians and drivers as well.

In preparation of the Irvine Coast Local Coastal Plan, the traffic volume forecast for the Pacific Coast Highway near Sand Canyon Road was 46,000 - 52,000 ATD in 1995. At this level, the Pacific Coast Highway would be operating at or above its design capacity, and would experience many hours of congestion.

If the peak hours of recreational traffic generated by Crystal Cove State Park coincide with the peak weekday traffic hours, the impact on traffic congestion will be much higher than if the two peak hour traffic volumes do not coincide. If the two peak traffic hours do not coincide, there may be no need for placement of traffic signals at the parking areas.

Pedestrians crossing the highway are a potential traffic hazard, as are the cattle that occasionally break through the highway right-of-way fence and get onto the highway.

Park visitors who park along the highway create a potential hazard when they pull off or back onto the highway, and when they enter and leave their vehicles.

The accident rate for a 36-month period (1-7-78 - 12-31-80) for the Pacific Coast Highway between milepost 11,500 (Laguna Beach/No. City Limits) and milepost 14.84 (Cameo Shores/Highland Drive) is below what is normally expected for the 118.52 million vehicle miles traveled.

The accident rate for a 36-month period (1-7-78 - 12-31-80) for the Pacific Coast Highway between milepost 11.79 (Moro Creek Bridge) and milepost 14.110 (Irvine Equestrian Center) is below what is normally expected for the 79.87 million vehicle miles traveled, except for fatalities, which are .008 above the expected rate. (See Table I for more details.)

The park is served by the Orange County Transit District, with stops at the following locations: the equestrian center, Crystal Cove, the El Morro School, Reef Point, and the El Morro Mobile Home Park.

EXISTING TRAFFIC VOLUMES

	<u>Year</u>	<u>Annual ADT</u>	<u>Peak Month</u>	<u>Peak Hour</u>
Milepost 11.500 (Laguna Beach/No. City Limits)	79	25,000	28,000	2,200
	80	25,000	28,000	2,200
Milepost 16.25 Newport Beach Jct. (Rte. 73)	79	46,000	48,000	3,000
	80	43,000	45,000	2,800

(Source: 1979-80 Traffic Volumes on California State Highways, State of California, Department of Transportation)

ADT** + Average Daily Traffic

TABLE I
ACCIDENT RATES FOR
HIGHWAY I, ORANGE COUNTY

	NUMBER OF ACCIDENTS			MULTI-VEHICLE	MVM**	ACTUAL ACCIDENT RATE		EXPECTED ACCIDENT RATE			
	TOTAL	FATAL	INJURIES			FATAL	FAT/INJ.	FATAL	FAT/INJ.	TOTAL	
(A) MP* 11.500 (Laguna Beach/N. City Line) to MP* 14.84 (Cameo Shores/Highlands Dr.) 5.56 km (3.341 m) 1/1/78-12/31/80 (36 months)	103	4	56	74	118.52	.033	.50	.86	.041	1.04	2.66
(B) MP* 11.79 (Moro Creek Bridge) to MP* 14.110 (Irvine Equestrian Center) 3.86 km (2.321 m) 1/1/78-12/31/80 (36 months)	84	4	46	59	79.87	.050	.62	1.05	.42	.97	2.44

* MP = Milepost
 ** MVM = Million Vehicle Miles
 *** Fat/Inj = Fatal + Injury
 (Accident rate per million vehicle mile is below what is expected, except for fatalities, which are .008 above the expected rate.)

(Source: California Department of Transportation, 8/12/81)

Cultural Resources

Refer to Resource Element.

Scenic and Recreational Resource

The scenic resources along the Irvine Coast consist mainly of the Pacific Ocean and its shoreline. The ocean can be viewed from most points in the park along Highway 1, although the beach itself is not visible from most of the highway. The view from Highway 1 consists of white sand, whitewater surf, blue ocean, and buff-colored bluff, with some vegetation. The mountains and canyons on the east side of the Pacific Coast Highway are a valuable scenic resource, since undeveloped hillsides are rapidly disappearing in Southern California.

Recreational opportunities offered in the Irvine Coast area, and particularly at Crystal Cove State Park, include fishing, sunbathing, picnicking, surfing, scuba diving, skin diving, swimming, and marine observation. An equestrian center is located on the coast, with riding restricted to the terrace. The Moro Canyon area is not open for public use.

Refer to the Resource Element for more details.

Environmental Impact(s) of the Proposed Project

SIGNIFICANT ENVIRONMENTAL EFFECTS AND MITIGATION MEASURES PROPOSED TO ELIMINATE OR MINIMIZE EFFECTS

The greatest adverse environmental impacts of the proposed project would result from construction activities, physical alterations of the land, and increased concentrations of people and activities in certain areas of the project.

The most significant changes include construction of parking areas, day-use areas, camping areas, maintenance facilities, an equestrian staging area, and staff housing, and improvement of coastal access.

Short-term impacts are related to construction activities on new roads, parking lots, trails, campgrounds, and utility placement.

Long-term impacts will result from greater use of the land, sewer facilities, and perhaps energy consumption.

The following sections discuss the summary of possible long-range impacts on the existing natural and cultural environment, public services, and community health and safety. Impacts associated with interim facilities development is discussed in greater detail, while development proposed in later phases is discussed in a more general nature. The effects of the General Plan are discussed first, followed by effects of interim facilities; general mitigation measures for the entire project are discussed, followed by a discussion of interim facilities - mitigation measures.

Effects on Soils and Geology

Specific factors influencing erosion are related to construction of parking areas, roads, day-use areas, family campsites, maintenance areas, and other related facilities. Increased visitor use associated with new and improved facilities will also contribute to increased erosion.

Additional roads and trails will involve use of impervious surfaces, which will increase runoff and therefore erosion. Upgrading the beach access ramps will alleviate the present problem of gullying and increased erosion.

Mitigation Measures:

Erosion control and drainage structures will be installed along trails, parking areas, roads, and other areas where it is necessary to dissipate the force of runoff and reduce sediment load. Restoration and revegetation measures will be implemented in areas that have been disturbed by construction and/or overuse.

Interim Facilities:

For a short time following construction of the Reef Point, El Moro overflow, Los Trancos Creek, and Pelican Point parking areas and entrance roads, increased erosion can be expected until seeded areas become established. The ground surface will be altered by placement of facilities and ground work necessary to establish proper drainage patterns.

Mitigation Measures:

The Reef Point, El Moro overflow, Los Trancos Creek, and Pelican Point parking areas will be designed to direct runoff to natural drainage courses. Energy dissipators will be installed, if necessary, to reduce the water speed and associated erosion.

Effects on Hydrology

Construction of roads, trails, and parking areas will alter surface runoff rates. If the surface runoff is not mitigated, serious erosion may result. Surface runoff from trails and parking areas will contain pollutants such as petrochemicals and asbestos; the amounts produced should not significantly affect the water quality of the intermittent streams.

Mitigation Measures:

Surface water runoff will be channeled or piped, if necessary, into the nearest natural drainage courses. If necessary, energy dissipators will be installed. Another possibility would be to direct the surface runoff into percolation strips in the parking area.

Interim Facilities:

Reef Point, Pelican Point, El Moro overflow, and Los Trancos Creek Parking Areas -- It is not expected that these parking areas will be paved with asphalt concrete. The parking areas will be surfaced with packed gravel. The percolation rate of the gravel should be higher than if the area was paved with asphalt concrete. The amount of surface water runoff produced from these parking areas should be less than what is now being produced. No significant impacts are expected.

Equestrian Staging Area -- The road into the area will be paved. The parking surface will be packed gravel. Surface water runoff should be higher than before it was graded and surfaced. The amount of runoff should not be significant.

Mitigation Measures:

Reef Point, El Moro overflow, and Los Trancos Creek Parking Areas -- The area now used for parking that will not be used for the new parking area will be revegetated. The amount of surface water runoff for the new parking area will be decreased. What surface runoff is produced will be directed into the closest natural drainage. If percolation strips are not adequate, piping may be necessary; if so, energy dissipators will also be necessary.

Pelican Point Parking Areas -- The area now occupied by the equestrian center will be revegetated. Erosion control measures may be required to correct existing erosional problems. Percolation strips and/or piping will be used to direct the water to the nearest natural drainage.

Equestrian Staging Area -- This facility placement will require that the area be graded. The parking surface will be composed of packed gravel. The surface runoff will be directed to percolation strips, drains, and/or culverts, then to the closest natural drainage. If culverts are necessary, energy dissipators will also be installed.

Seven Access Ramps -- Improving these access ramps will have a positive impact on the surface hydrology, and no significant impacts are expected.

Effects on Biota

Flora

Construction of parking facilities, day-use areas, the maintenance and administration area, trails, and visitor facilities will require elimination of grasses and shrubs.

Prescribed burns and exotic vegetation removal will involve destruction of grasses and shrubs.

Increased visitor use in new areas will destroy vegetation; however, the amount of vegetation destroyed will not be significant.

Mitigation Measures:

Areas disturbed during the course of site work and placement of facilities will be revegetated with native species. Non-native species of plants in the El Morro Mobile Home Park will eventually be replaced with native species.

Interim Facilities:

Archeological Mitigation (Reef Point) -- Archeological mitigation will require that a blanket of fill be placed over the site to protect it; this action will destroy the existing vegetation.

Upgrade Seven Accesses -- Upgrading the access roads will require grading and installation of drainage structures; however, significant amounts of vegetation will not be destroyed.

Equestrian Staging and Maintenance Areas -- The equestrian staging area will require elimination of grasses and shrubs. Horses using the facility will most likely denude the area of new grasses that try to reestablish.

Pelican Point -- Removal of the equestrian center will probably destroy what little vegetation now exists in its immediate area.

Reef Point Parking -- Same as Archeological Mitigation (Reef Point)

Los Trancos Creek Parking -- Grasses and shrubs will be destroyed during site work for the parking area and trail leading to the beach.

El Moro Overflow -- Same as above.

Mitigation Measures:

Archeological Mitigation (Reef Point) -- The area not used for parking will be seeded or allowed to revegetate naturally.

Upgrade Seven Accesses -- Areas susceptible to high amounts of erosion will be revegetated.

Equestrian Staging Area -- Disturbed areas around the equestrian staging area will be reseeded. Depending on the amount of use, the staging area may become denuded. The amount of area that may become denuded will not be significant. Horses will not be allowed to graze in the park.

Pelican Point -- The loss of vegetation will not be significant.

Reef Point -- Same as Archeological Mitigation, above.

Los Trancos Creek Parking -- The loss of vegetation will not be significant.

El Moro Overflow -- Same as above.

Fauna

Construction of parking areas, campgrounds, day-use areas, the maintenance and administrative area, trails, and roads will displace reptiles, birds, and mammals. These animals should relocate in the surrounding areas, and no significant impacts are foreseen.

The prescribed burn program will affect the animal life inhabiting the area. Depending on the types of materials being burned, a variety of animals may be burned or killed. Most animals are mobile enough to escape the fires; however, due to instinctive behavior or lack of mobility, some animals will not be able to escape the flames. The number of animals that may be killed is not significant. There will be a temporary loss of animal habitat, and animals that move into surrounding areas will compete with established animals for food and shelter, possibly resulting in animal fatalities.

Mitigation:

Removal of cattle grazing and noxious non-native plant species from the park will improve the habitat for native animal species. The prescribed burn program should have a positive effect on the habitat for a variety of animal species.

Interim Facilities:

Same as above.

Mitigation Measures:

No mitigation measures are necessary.

Effects on Air Quality

Construction and use of the parking, campground, and day-use areas will produce pollutants in the form of dust and vehicle emissions. The day-use and overnight areas will also produce small amounts of smoke from barbecues and camp stoves. The dust, vehicle emissions, and smoke produced will not be significant. However, smoke produced from prescribed burns may significantly affect the air quality and health of the people in the area, depending on meteorological conditions on the day of the burn.

Mitigation Measures:

During construction, watering and other such methods will be used to minimize the amount of dust escaping from construction areas.

The prescribed burn program will be carried out during periods recommended by the South Coast Air Quality Management District, when the program will not produce smoke that would produce unhealthful conditions.

Interim Facilities:

Construction and operation of interim facilities will not have a significant impact on the air quality of the South Coast Air Basin.

Mitigation Measures:

During construction, water and other such methods will be used to lessen the impacts of dust escaping from the construction areas.

Effects of Noise

Increased noise will occur during the construction phase of the project. Increased visitation to the park may result in an increase in noise levels. The increase in noise during construction should be short-lived and not significant. The increase in visitor traffic noise is not considered significant.

Mitigation Measures:

Construction will be limited to weekdays and daylight hours.

Interim Facilities:

Noise from the equestrian staging area and the maintenance and administrative area is not expected to affect residents of the El Morro Trailer Park and students at the El Morro School.

Mitigation Measures:

Same as above.

Effects on Land Use

Installation of parking areas and maintenance and administrative facilities on the inland side of the Pacific Coast Highway will reduce the amount of open space. The Moro Canyon area, which has been closed to the public by the Irvine Company, will be opened to the public. The overall effect on land use will be positive; visitors will be able to enjoy the outstanding natural and recreational values.

Purchase of the land and inclusion in the State Park System limits use of the area to park purposes only. The area would not be available for private commercial or residential development.

Mitigation Measures:

Earth berms will be constructed to shield the parking lots from the view of motorists on the Pacific Coast Highway. Denuded areas that now exist on the bluffs will be rehabilitated or abandoned and allowed to return to a more natural state. Areas with serious erosion will be rehabilitated. Existing parking areas that are not being used will be rehabilitated, increasing the amount of open space. Vegetative screening will be used where required to screen areas visible from the highway.

Interim Facilities:

Reef Point, El Moro overflow, and Los Trancos Creek Parking Areas -- The proposed parking capacity will be increased, thereby increasing visual impacts as seen from the highway.

Pelican Point Parking Areas -- The capacity of the existing parking lot will be reduced. The area not used for parking will be allowed to return to its natural condition. Once two of the four planned parking areas are developed, the existing parking area will be abandoned and the area restored.

Equestrian Staging Area -- This area will be visible from the higher inland areas of the park. Portions of the equestrian staging area will be visible from the Pacific Coast Highway. The open space quality of the area will be diminished.

Mitigation Measures:

Reef Point Parking Area -- An earth berm will be constructed to shield the area from view from the Pacific Coast Highway. Areas not used for parking will be rehabilitated.

Pelican Point, El Moro overflow, and Los Trancos Creek Parking Areas -- The same mitigation as for the Reef Point Parking Area will be performed.

Equestrian Staging Area -- No measures are available to mitigate the visual impact of development as seen from the higher upland area of the park, or for loss of open space due to construction of the equestrian area. Earth berms or plantings may be used to screen the area from view from the Pacific Coast Highway.

Effects on Human Community

Development of Crystal Cove State Park will require relocation of people and businesses. Ultimate development of the park will require the El Morro trailer park to be vacated. Residents of the trailer park have negotiated 20-year leases with the State of California, which expire in 1999.

The equestrian center and residents of the Crystal Cove Historic District will also be relocated. Ultimate development of Crystal Cove State Park will require removal of 294 homes in the El Morro Trailer Park and relocation of up to 43 residents in the Crystal Cove Historic District and the equestrian center.

It is expected that the people who will be relocated will probably move to the nearby communities of Laguna Beach or Newport Beach.

Operation of the state park will require a ranger and maintenance staff. Most of the ranger and maintenance staff and their families will probably live close to the park; most likely in Laguna Beach or Newport Beach.

The park could attract increased numbers of visitors, which may increase the demand for local goods and services.

Mitigation Measures:

According to California Government Code Sections 7260 et seq., relocation assistance will be provided to qualified persons displaced by park development.

Interim Facilities:

Development of the Pelican Point parking area will require relocation of the existing equestrian center.

Mitigation Measures:

Same as above.

Effects on Fire Hazard

Fire hazard will increase due to increased human activity in areas not previously open to the public. Use of fire in day-use and camping areas will increase the chances of wildfires.

There is a chance that, during prescribed burns, fire may escape containment and burn uncontrolled, endangering private property and lives.

Mitigation Measures:

Mitigation will consist of interpretive programs on fire safety and signing of the area. Proper clearance around day-use barbecues and camp stoves will be maintained. Ranger patrol vehicles will be equipped with initial-attack fire equipment. In the event of a Red Flag Day (determined by the Orange County Fire Department), when there is an unusually high fire hazard, portions of the park may be closed or certain activities curtailed.

The prescribed burn program will be carried out with coordination of state, county, and local fire agencies.

Interim Facilities:

The Los Trancos Creek parking area and equestrian staging area will increase the chance of fire in the grasslands due to increased human activity.

Mitigation Measures:

Same as above.

Effects of Light and Glare

Parking areas will not be lighted. Maintenance, administrative, and restroom facilities and other buildings will be lighted for safety and security. Vehicles using the parking area will produce glare. The effects of light and glare produced by the project will not be significant.

Mitigation Measures:

Some parking areas on the coastal terrace will be screened from the view of travelers on the Pacific Coast Highway by earth berms. These berms will be designed to screen the parking area, but will not impair the view of the ocean. In addition to earth berms on the highway's inland side, vegetation screening may be used.

Interim Facilities:

Same as above.

Mitigation Measures:

Same as above.

Effects on Public Service

Day-use areas, campgrounds, parking areas, and equestrian facilities will attract increased numbers of visitors. The increase in attendance may require increased need for police, fire, and sanitary services. There will also be an increase in water and electrical consumption until the trailer park is vacated and the area is converted into a camping and day-use area.

In the future, it may become necessary to provide sewers to the park by connecting to the local sanitation district when the trunk lines have been expanded to serve that portion of the coast.

Mitigation Measures:

The amount of water, electricity, and solid waste is not expected to be significant, and will not require mitigation. The increased need for police and fire services will be mitigated by the presence of state park rangers assigned to the park. State park rangers are peace officers, and should be able to handle most enforcement activities. Occasionally, Orange County sheriff back-up may be necessary. Patrol vehicles should be equipped with slip-on pumper units designed for initial fire attack; if this is not adequate, the Orange County Fire Department will have to be called for assistance. The Orange County Fire Department would probably be needed during the prescribed burn program.

Interim Facilities:

The interim facilities will use chemical toilets that will be serviced by a contracting firm. The equestrian staging area, entrance stations, and parking areas will require water and electricity; the amount should be minimal.

Mitigation Measures:

Even though the amount of electricity and water that will be needed is not significant, water and electrical conservation measures will be designed into the project.

Effects on Transportation

The increase in recreational opportunities at Crystal Cove State Park will lead to increased traffic through an increased number of parking spaces, possibly causing a higher level of traffic congestion, accidents, and pollution, and a reduction of traffic speed.

Mitigation

Increased traffic congestion and accidents on the Pacific Coast Highway due to park facilities may be reduced by placement of traffic signals or by widening the Pacific Coast Highway. Congestion may be reduced by the county's construction of Sand Canyon and Pelican Hill Roads.

The parking areas will be designed to facilitate access and egress with a minimum impact on through traffic. This could be accomplished by elimination of some parking along the right side of the Pacific Coast Highway and installation of auxiliary lanes, which would enter into parking areas. The Department of Transportation (CALTRANS) is a responsible agency, and will be issuing encroachment permits for entrances to the parking areas that will be accessible from the Pacific Coast Highway. Design details for the encroachment permit will have to be worked out with the Department of Transportation.

The department will encourage use of public transit as a means to reduce the number of recreation vehicles using the highway system. Bus parking areas will be designed in each of the parking areas.

Interim Facilities:

Equestrian Staging Area and El Moro Parking Area -- This area will accommodate 350 parking spaces, resulting in about 1,400 vehicle trips per day. Traffic congestion in the northbound and southbound lanes of the Pacific Coast Highway may result from cars with horse trailers turning in and out of the access road. The access is located next to the El Morro School, and may be confused with the entrance to the school. This entrance location is temporary. When Sand Canyon Road is completed, the entrance to the staging area will be shifted from the Pacific Coast Highway to Sand Canyon Road.

Pelican Point -- The Pelican Point Parking Area will hold 120 cars, which will generate about 480 vehicle trips per day. Both northbound and southbound traffic may become congested by cars entering and leaving the parking lot.

Reef Point -- The Reef Point Parking Area will accommodate 300 vehicles. Traffic congestion, accidents, and pollution should decrease slightly due to the reduction in the number of parking spaces from 600 to 300.

Los Trancos Creek Parking Area -- There will be an increase of 600 parking spaces, resulting in a higher level of traffic congestion, accidents, and pollution. The entrance to the parking area is temporary. As soon as Pelican Hill Road is completed, the entrance will be shifted from the Pacific Coast Highway to Pelican Hill Road.

Existing Pelican Point Parking Area -- Once the parking areas are developed, this parking area will be abandoned, resulting in a net decrease of 300 parking spaces on the ocean side of the Pacific Coast Highway.

El Moro Overflow -- The El Moro Overflow area is located on the west side of the entrance road, near the equestrian staging area and El Moro parking area. The area will accommodate 200 vehicles. The parking area will be used when the other parking areas are full. The impacts associated with this parking area are similar to those of the equestrian staging area and the El Moro parking area.

Table 2

CRYSTAL COVE STATE PARK
TOTAL
VEHICLE TRIPS GENERATED DAILY

	<u>VTD(1)</u>	<u>PCH(2)</u>	<u>TOTAL VTD</u>
1981 (Existing)	6,910	3,620	10,530
Interim Facilities	6,890	3,620	10,510
Year 1999	7,880	3,620	11,500

VTD(1) = Number of trips generated by facilities in Crystal Cove State Park (Parking/unit X Vehicle Trips = Total Vehicle Trips Daily)

PCH(2) = Approx. Instantaneous Capacity for parking along the Pacific Coast Highway (Highway 1)
 1,609 km X 4 mi = 6.436 km - 7.3 m/car = 880 vehicles
 (5,280' X 4 = 21,120 - 24' per car = 880 vehicles)

Turnover rate of 2 = 4 x 880 = 3,620 vehicle trips per day

Table 3

TRAFFIC GENERATION
CRYSTAL COVE STATE PARK

	1981		Interim		1999	
	Parking/ Unit	Space/Unit Vehicle Trips	Parking/ Unit	Space/Unit Vehicle Trips	Parking/ Unit	Space/Unit Vehicle Trips
1. Trailer Park	294	7	294	7	0	0
2. Crystal Cove	46	12	46	12	0	0
3. Equestrian Ctr.	75	4	0	0	0	0
4. Existing Pelican Pt.	400	4	400	4	0	0
5. Reef Point	600	4	300	4	300	4
6. El Moro	0	0	50	4	350	4
7. Pelican Point	0	0	120	4	240	4
8. Los Trancos Creek	0	0	0	0	600	4
9. Crystal Cove Hostel	0	0	0	0	10	4
10. Hist. District Staff	0	0	0	0	10	4
11. Moro Cove (creek)	0	0	0	0	200	4
12. Campground	0	0	0	0	60	4
13. El Moro Overflow	0	0	200	4	200	4
Total	1,415	6,910	1,410	6,890	1,970	7,880

Approximate Instantaneous Capacity for Parking along PCH is
(1.609 km X 4 mi = 6.436 km - 7.3 m/car = 880 vehicles)
(5,280' X 4 = 21,120 24' per car = 880 vehicles)

Turnover rate of 2 = 4 X 880 = 3,620 Vehicle trips per day

Total VTD = 3,620 + 7,880 = 11,500 Vehicles

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Mitigation Measures:

Equestrian Staging Area and El Moro Parking Area -- The confusion over the entrance roads to the parking lot and school can be mitigated by proper sign placement to distinguish the two roads. Traffic congestion may also be mitigated by placement of a traffic signal at this location.

Pelican Point -- Congestion on the Pacific Coast Highway may be reduced by installation of a traffic signal in this area. Traffic signals will most likely not be installed until Pelican Hill Road is constructed, or unless traffic congestion or accident rates require it. Bus parking areas are included in the parking design.

Reef Point -- Congestion may be relieved by installation of traffic signals. Bus parking will be provided as part of the parking facility.

Los Trancos Creek Parking Area -- Congestion may be reduced by placement of traffic signals. The signals would probably not be installed until Pelican Hill Road is constructed, or unless traffic congestion or accident rates require their placement. Bus parking will be provided as part of the facility.

Existing Pelican Point Parking Area -- Same as previously mentioned areas; however, the existing parking area will eventually be eliminated.

El Moro Overflow -- Since the El Moro Overflow area uses the same entrance road as the equestrian staging area and the El Moro parking area, mitigation measures that would apply to the other parking areas would also apply to this overflow area.

Effects on Cultural Resources

Development and operation of facilities at Crystal Cove State Park may affect as many as eleven known archeological sites. The road into the interior of the park affects six sites. The El Morro Trailer Park now effects (ORA 280); the proposed maintenance and administrative area at El Moro may affect this site. The Reef Point Parking Area will affect (ORA 323) and (ORA 971), and one of the access ramps will affect (ORA 130). The 60-unit campground that will replace the trailer park may also affect the site. The access road to the campground will affect (ORA 280). During construction, it is possible that previously unrecorded archeological sites may be affected. Increased access to the park will increase the chances that archeological resources will be vandalized.

The structures of the Crystal Cove Historic District will be subject to vandalism if left vacant.

The prescribed burn program could affect cultural resources. The exact impacts of controlled fire on cultural resources are not known at this time. It is known that artifacts such as baskets, wood implements, petroglyphs, and pictographs can be damaged or destroyed by fire. Non-flammable artifacts may be affected by heat and smoke; the material composition may be so changed as to impair accurate dating of the artifact.

Mitigation Measures:

Several archeological sites that will be affected will first be surface-collected, then capped with an archeologically proper and agreed upon capping material. Several other sites that will be affected may need to be excavated in order to protect them. It may be necessary during construction activities in culturally sensitive areas to monitor activities, using qualified archeologists and Native American observers.

The Crystal Cove Historic District will be managed in accordance with the Secretary of Interior's General Standards for Historic Preservation Projects. No maintenance or modification to the site or structures will be undertaken without prior approval from the Department's Resource Protection Division and the Office of Historic Preservation. To adequately protect the structures, additional patrol and/or surveillance may be necessary.

- A. If, during construction, previously unrecorded archeological sites are discovered, construction will stop in that particular area until a qualified archeologist from the department has surveyed the site and recommended proper mitigation measures.
- B. The impacts to archeological sites caused by road maintenance can be mitigated by importing fill to repair the roads, rather than grading.

Interim Facilities:

Reef Point Parking Area -- Development of the Reef Point Parking Area will involve archeological site (ORA 323 and ORA 971).

Pelican Point Parking Areas -- Development of two 60-car parking areas will not affect any known archeological or historical sites; the existing lot also has no effect.

Los Trancos Creek Parking Area -- Construction of this facility will be situated near (ORA 246), but is not expected to affect the site. The entrance road, parking area, and trail to the beach will be placed so as not to affect any cultural resources.

Equestrian Staging Area, Maintenance Area -- This facility will be located near archeological site (ORA 280). The entrance road will follow the existing road, and should not affect the site.

Seven Access Ramps -- Improvement of one of the seven beach access ramps will affect archeological site (ORA 130). The access ramp currently affects the site, and the drainage from the abandoned parking area is causing the site to be affected by erosion caused by surface water runoff. Any removal of the parking area or improvement of the access ramp will seriously affect the archeological site.

El Moro Overflow -- No sites to be affected.

Mitigation Measures:

Reef Point Parking Area -- Archeological sites (ORA 323) and (ORA 971) will be surface-collected, then capped with an archeologically proper and agreed-upon capping material.

Pelican Point Parking Areas -- No mitigation is necessary; no archeological or historical sites will be affected.

Los Trancos Creek Parking Area -- No mitigation measures are necessary, since construction of the parking areas will not directly affect (ORA 246). The parking area will subject the site to vandalism by exposing it to increased numbers of people in the vicinity. The area will be patrolled by the ranger staff assigned to the park.

Equestrian Staging Area, Maintenance Area -- No mitigation will be necessary for placement of the equestrian staging area or the maintenance area.

Seven Access Ramps -- Archeological site (ORA 130) will need to be excavated to protect it from work necessary to improve the access ramp. Removal of the abandoned parking area will also affect the site; this, too, may require excavation and capping.

El Moro Overflow -- No mitigation necessary.

Unavoidable Environmental Effects

Development of the park will require grading for trails, roads, parking, and buildings that will alter the natural topography. Vegetation will be destroyed by construction and by visitor use. Possible destruction of cultural resources and loss of artifacts may result from construction, the prescribed burn program, and vandalism. Increased surface water runoff will result from creation of impervious surface areas. An increase in the number of users will increase the probability of fire and increased traffic problems.

Alternatives to the Proposed Project

No Project

Adoption of this alternative will allow continuation of the status quo. The impacts associated with construction and facilities development would not occur. The amount of open space would not be reduced. Resources that are now being damaged by over-use and erosion would, however, continue to be affected.

The "no project" alternative would not allow the increase in availability and quality of recreational experiences offered to visitors.

Increase Intensity of Development

An increased scale of development would provide a greater opportunity for public access and use. Development would require a greater loss of open space. Construction of facilities and increased use would mean increased impacts to the resources.

Decrease Intensity of Development

A lower scale of recreational development would mean a reduced loss of open space. Impacts on the resources would be less. This alternative would not allow maximum public access and enjoyment with the least amount of environmental damage.

Different Configurations of Facilities

Camping on the Coastal Shelf (ocean side of PCH)

This alternative was studied and rejected due to a conflict with the Local Coastal Plan, which calls for development on the terrace to be small-scale and oriented to day recreation users.

Camping in Lower Reaches of Moro Canyon

This alternative was rejected for two reasons: first, it was felt that the area would be too congested and users too concentrated, and second, development would significantly affect the resources of the area.

Do Away with Camping and Replace with Day-Use Facilities

This alternative was rejected because, according to CORRP (the California Outdoor Recreation Resources Plan), District 8 (Orange County), there is a need for additional campsites to accommodate the demand. Elimination of camping would not help meet the recreational needs of the people of the state.

The arrangement of specific facilities in the proposed plan could be varied. All potential sites, however, have been considered for each proposed land use. Areas selected for development were done so on the basis of resource sensitivity. In selecting the final areas for development and the size of development, the department's goal was to increase public access and enjoyment while minimizing impacts to the environment.

The Relationship Between Local Short-Term Use of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity

The primary objectives of the Resource and Land Use and Facilities Elements are to protect the natural, cultural, and historical resources of Crystal Cove State Park, and to enhance visitor enjoyment, appreciation, and recreational opportunities. The public should be able to enjoy the natural, cultural, historical, and recreational values of the park for many years to come. The terms of purchase of the land from the Irvine Company by the State of California preclude any use of the land other than for State Park System purposes.

Irreversible Environmental Changes and Irretrievable Commitments of Resources Should the Proposed Project be Implemented

The proposed project will commit natural areas to trails, roads, parking areas, and facilities. The existing topography will be permanently altered, and open space will be reduced, due to construction of parking lots and the equestrian staging area. Development of the park's facilities will require consumption

of irretrievable resources such as aggregate materials, fossil fuels, petrochemicals, and energy. Ownership of the land by the Department of Parks and Recreation will preclude any residential development.

Growth-Inducing Impact of the Proposed Project

The proposed project will not substantially increase the permanent human population in the area. Operation of the park would require a maintenance and ranger staff. The staff and its families would be required to live in the surrounding communities.

Residents of the El Morro trailer park will have to relocate when the present leases expire in 1999. These people would most likely relocate into the surrounding communities of Laguna Beach or Costa Mesa. People living in the Crystal Cove Historic District will also be relocated, and will probably move into the surrounding communities.

A total of 340 families living in the El Morro trailer park and the Crystal Cove Historic District will eventually be moved.

Additional parking and day-use facilities may increase visitor use of the area, which may create an increased demand for goods and services. This increased demand may increase revenues for businesses in the vicinity.

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APPENDIX A

Cultural Resource Overview of Crystal Cove State Park

Introduction

Southern California cultural traditions before 5,000 B.C. are not well defined for most of Orange County, nor for the area of Crystal Cove State Park.

By about 5,000 B.C., it appears that a relatively uniform cultural tradition existed on the coast from Santa Barbara south to San Diego. Most archeologists call this subsistence pattern the Encinitas Tradition. This tradition centered around the collection of small wild seeds and shellfish. The additive Campbell Tradition developed out of the Encinitas by about 3,000 B.C. in Santa Barbara, and a little later in the Ventura area, and still later in parts of Los Angeles and Orange Counties. The Encinitas Tradition seems to have continued until 500 to 700 A.D. along the Orange and San Diego County coasts, when it was replaced by a cultural tradition identified by archeologists as the Shoshonean/Yuman Tradition.

The Encinitas Tradition is identified in part by large projectile points, the use of milling stones (mano/metate), and a largely undifferentiated chip stone tool assemblage. The Shoshonean/Yuman Tradition has two tool phases. The early phase is marked by the introduction of small triangular projectile points, addition of the mortar and pestle to the milling assemblage, shell beads, shellfish hooks, varied bone tools, and the so-called "donut" stones and "cog-stones", use of which is not positively known, and a much broader array of ornamentation than the earlier Encinitas Tradition. The principal "late" Shoshonean artifact addition is manufacture and use of pottery. Both Shoshonean traditions continue up to Hispanic contact in the latter part of the 17th and early part of the 18th centuries.

Previous Investigations

Although Nels C. Nelson of the University of California at Berkeley may have surveyed the area of Crystal Cove State Park in 1912, the first recorded survey of the coastal strip was conducted in 1929 by Richard Van Valkenburg. The coastal strip was also surveyed several times by Herman Strandt between 1921 and 1966. Although crews from the University of Southern California and Orange County SERA (State Emergency Relief Administration) excavated sites near the property in the early 1930s, the first known excavation on project property was conducted by the WPA under the direction of John Winterbourne, from 1937 to 1939. CA:ORA:280, near the mouth of Moro Canyon, was excavated during this period. From the advent of World War II until 1949, no survey or excavation is known for the project zone or the surrounding areas. R. J. Briggs is known to have surveyed the area in 1949, and probably recorded the coastal strip sites now known as CA:ORA:1, 13, 147, and 323. In 1956 and 1957, William J. Wallace, then at the University of Southern California, recorded six sites in the coastal strip and excavated at least three sites on project property. He labeled these sites Cameo Cove (CC) 1-6. The records are not clear, but it appears that Wallace and his crews excavated sites CA:ORA:1, 130, and 147.

Since 1960, the area has been surveyed several times by the Pacific Coast Archeological Society (formed in 1961 as an avocational group to study Orange County archeology), which has been responsible for almost all publications currently available on Orange County archeology. From 1960 to 1970, the number of recorded sites in Orange County was doubled from 160 to about 320. In 1971, the Irvine Company began contracting archeological survey and excavation. The principal contract organization from 1971 until its relocation to Santa Barbara in 1977 was Archeological Research, Inc. Personnel from ARI and numerous local colleges and universities working through ARI conducted many survey and excavation projects on Irvine property.

Only three of the surveys carried out by ARI have any importance to the Crystal Cove State Park area. A survey conducted by Roger Desautels and Steve Colgrove in 1971 re-identified two sites at the mouth of Moro Canyon (CA:ORA:280 and 323 -- a new number for one of Wallace's Cameo Cove sites), and ten new sites in Moro Canyon (CA:ORA:324-333). In 1977, under the direction of Marie Cottrell, ARI re-identified four sites in the coastal strip to the west of Moro Canyon (CA:ORA:1, 130, 147, and 216), and identified three new sites (CA:ORA:660, 661, and 685).

In 1977 and 1978, ARI/ARM (Archeological Resource Management incorporated, a new company founded by Marie Cottrell, former president of ARI) surveyed to the east of the project zone, and identified five new sites (CA:ORA:705-709) and resurveyed the twelve sites associated with Moro Canyon.

Inventory Procedures

This document is the result of an in-house literature search and an intensive foot survey of the property in Crystal Cove State Park. Base maps were obtained through the department's Development Division. The research consisted of an examination of records housed in the Office of Historic Preservation and the Cultural Heritage library of the Department of Parks and Recreation. Office of Historic Preservation files yielded survey records of all known sites in the project zone, along with several environmental impact statements for areas within 1 to 2 kilometers (one-half to 1 mile) of the project area. An examination of the Cultural Heritage library yielded one M.A. thesis, one Ph.D. dissertation, and more than twenty articles in the Pacific Coast Archeological Society Quarterly dealing either with the project zone or with sites in the 1 to 2 kilometer range. Additionally, personal communications were obtained from several persons with expertise in Orange County archeology, including, but not limited to, Franklin Fenenga, professor at C.S.U.L.B.; Jeff Bingham, CALTRANS; and Philip Hines, M.A. C.S.U.L.B.

The field review was carried out over four weeks by a crew of three, including John Kelly, State Archeologist II, Cultural Heritage Planning (Development Division); John McAleer, State Historian I, Cultural Heritage Planning; and Joe Hood, State Archeologist I, Cultural Heritage Planning. This survey was extensive, and included all accessible areas in the park. The only areas not surveyed were canyon walls that were too vertical or too covered with thick brush, in combination with an extreme slope. Generally, if it could be surveyed without climbing gear, it was.

Cultural History

Native American History

The ethnographic population of Crystal Cove State Park was recognized by A. L. Kroeber as Juaneno, a takeoff on the name of the closest mission (San Juan Capistrano) (Kroeber 1925:636-647). Lowell Bean has recently identified the local people as part of the large Gabrieleno group which occupied all of the Los Angeles Basin, the San Fernando and San Gabriel Valleys, and most of the valleys, estuaries, and uplands of Orange County (Bean 1978:538-549).

There is a large and recently identified living population of Juaneno who have a strong sense of identity. Their group, the Juaneno Band of Mission Indians, has grown rapidly over the past two years, from a small nucleus to more than 1,700 members.

The Juaneno speak a Cupan language of the Takic family of the Uto-Azetekan linguistic phylum. They are linguistically and culturally related to the Shoshonean peoples of the California Desert and Great Basin. The Juaneno are more remotely related to the Azetekan peoples of central Mexico. Population estimates are sketchy for all coastal peoples of California south and east of the Chumash of Santa Barbara and Ventura Counties. Several accounts indicate that the Juaneno suffered greatly from European diseases for some time before actual Hispanic colonization.

Archeological evidence indicates that these Shoshonean-speakers replaced an earlier population that may have been Hokan-speaking, about 5,000 B.C.

Permanent villages appeared in fertile lowlands and in sheltered areas along the coast shortly after the Takic peoples expanded into Southern California.

The Juaneno and Gabrieleno were described by many early contacts as of fair complexion and hardy. Both body painting and tattooing were popular. Men and women wore their hair long, except when singed or cut short as a mourning sacrifice. Men and children reportedly went naked throughout most of the year. The accuracy of this statement is in doubt, as examination of the diaries of Spanish explorers indicates that they classed anyone not wearing "pantalones" as naked. It is probable that men, and possibly boys, wore a loin cloth part or all of the time. Women wore the characteristic double apron affected by most Native Americans. Everyone wore deer skin, fur, or bird skin capes when weather was inclement.

Most Juaneno material culture was quite perishable, and little has survived that can be identified. Early accounts extol the high degree of artisanship these people lavished on even everyday use items, which are said to have been elaborately decorated with shell and stone inlay.

They made a variety of steatite (soapstone) artifacts, mortars, metates, manos, wooden utensils, bark baskets and trays, pottery, wooden bowls, bone tools, shell tools, chip stone tools, and a large variety of weapons for both hunting and interpersonal conflict.

Their houses were domed, circular structures, quite often semisubterranean, thatched with the most suitable local material. Other structures included the sweat house, menstrual hut, and ceremonial enclosure (generally an open air, oval brush corral).

Little is known about Juaneno social organization. It is thought that they had a bimodal social (moiety) system, with each mode having three internal classes -- an elite including chiefs and the very rich, a middle class composed of traders, artists, and artisans, and a last group consisting of everyone else. Some evidence indicates that the elite class even used a special language when speaking to each other. Some of the wealthier Juanenos owned property and controlled its exploitation, much like modern American land owners. The property was marked with representations of the owner's personal tattoo around the perimeter.

It appears that marriages were usually between persons of about equal social rank, with a person of high rank being betrothed in childhood to a person from a different lineage to help cement social and economic ties. Men generally took only one wife at a time, with a possible exception being a village chief, who might have two wives. Lineage was traced through the male line, and all inheritance was also in the male line.

Each girl would be given her own ceremony at the onset of puberty. Not much is known about male puberty ceremonies, but the Juaneno were thought to practice the Toloache ceremony. Toloache is a fermented drink made from the roots and/or other parts of the "Jimson" weed (Datura sp.), which has a high concentration of belladonna. The drink was administered to young men and sometimes young women after an extended ritual of purification and fasting. Some initiates died from the strong narcotic, and those that survived spent one to three days drifting in and out of reality while experiencing colorful hallucinations. Some of the people of Southern California chose their adult symbols and secret names during their initiation.

Ceremonial cannibalism is reported but not confirmed. It is said that a small piece of the body of a powerful person would be consumed after his death, in hopes that some of his power could be acquired. There are no confirmations of this behavior. Cremation was the typical method of disposal of the dead until the Hispanic intrusion. Most people were either burned with all of their worldly possessions, or their material things were saved and burned over several years at annual mourning ceremonies.

Juaneno subsistence was as complex as that of most of their neighbors. Large and small terrestrial and marine animals were hunted by the men with spears, bows, nets, and a wide variety of traps and snares. Marine hunting also included hook and line, and was often carried out from a plank boat of the type most closely associated with the Chumash. Women and children, and sometimes men, collected and prepared most floral resources and some faunal resources.

The Juaneno and Gabrieleno were arbitrators of both goods and ideas, and may have been surpassed in these endeavors in California only by the Yokuts of the San Joaquin Valley.

Although not as serious about warfare as the Yuman peoples of the Colorado River, the Juaneno had reed armor breast plates and war clubs designed only for use on other humans. Most conflicts between groups were family feuds, which often lasted for generations. The hostilities were ritualized into the singing of obscene songs to opponents, for sometimes as long as a week. It appears that these songfests rarely resulted in personal violence.

Euroamerican History

The area now known as Crystal Cove State Park had long been isolated from the public until construction of the Pacific Coast Highway in the mid-1920s. Generally lying outside the route of north-south travel, the area had little recorded history before the age of the automobile, the motion picture industry, and recreational beach cottages.

Spanish contact with the area came in 1776, seven years after Portola skirted the area, with the founding of Mission San Juan Capistrano. The area that makes up Crystal Cove State Park was once part of the mission's grazing lands, being but a small portion of the several hundred square miles of grazing lands used by the mission. Native Americans were quickly assimilated into the mission system.

With the Secularization Act of 1833, much of San Juan Capistrano's land was turned over for private use. In 1836, Jose Andres Sepulveda petitioned the governor for a grant of land that included Crystal Cove State Park. Sepulveda finally acquired judicial possession on April 15, 1837. He quickly added a second grant of land that, combined with the first, became known as Rancho San Joaquin.

As throughout the state, land ownership patterns changed with the arrival of the Americans. Sepulveda, like many land owners, found proving ownership before the commissioners appointed by the U.S. government to settle Mexican land grants was often lengthy and costly. The drought of 1862-1864 continued a series of economic reverses for Sepulveda, and forced him to sell his property in 1864, for \$18,000.

The new owners were a San Franciscan merchant by the name of James Irvine, and sheepmen Llewellyn Bixby and Benjamin and Thomas Flint. The new partners were tenants-in-common, with James Irvine dominating the partnership with 50 percent of the land, and the other 50 percent divided between Bixby and the Flint brothers. In the years that followed, Irvine loaned his partners money that was guaranteed by their interest in the ranch. The same misfortunes that befell Jose Sepulveda returned to affect Bixby and the Flints. The drought of the mid-1870s resulted in the loss of their sheep herds. They were forced to turn over their interest in the land to James Irvine in order to repay their loan.

Irvine continued to graze cattle and to farm the land. His center of operation was inland, rather than along the inaccessible coastal area.

The opening of the Irvine Coast, and Crystal Cove in particular, had to await development of the automobile and road building activity that flourished throughout California after World War I.

With passage of road building bond acts in the 1920s, the Pacific Coast Highway continued southward from Los Angeles. In 1924, the Irvine Company deeded the right-of-way of its ranch road between Corona del Mar and Laguna Beach to the state Highway Department. A newly paved road offered residents of Los Angeles the freedom to leave the city for a day of touring. Ocean vistas, new beaches, or perhaps stopping at a roadside stand, such as the Date Shake Stand above Crystal Cove, became part of the recreational pastime of the 1920s.

The community of Crystal Cove developed over a number of years. James Irvine II and James Irvine III enjoyed the beaches of Crystal Cove, and encouraged their employees and friends to build shelters and cottages along the beach. Early photographs of Crystal Cove show a summer community made up of a tent city, situated on the sand and the area toward the bluffs. Eventually, small, one-room cottages were built and thatched with palms that gave the cove the tropical appearance of Hawaii or Tahiti. Sometime in the 1920s, a lumber ship capsized, and much wood suitable for construction of more cottages drifted ashore. Throughout the 1930s, more cottages were added, and cottages that started with one room were often expanded to include additional rooms. Eventually, many of the cottages lost their thatched palm covers, appearing as they do today.

During the late teens and early twenties, Crystal Cove, as with most of the area between Corona del Mar and Abalone Point, attracted the attention of the booming silent film industry. The cove's good weather, palm trees, and sandy beaches provided a tropical South Seas backdrop for many early movies. Although exact information is lacking, it is believed that some early films made at Crystal Cove, either in part or in total, include "Rain," starring Gloria Swanson and Lionel Barrymore, and "Half a Bride," starring Esther Ralston and Gary Cooper.

The Irvine coast supported a large Japanese community. Growing conditions along the coast were ideal for raising peas, corn, tomatoes, and strawberries. Photographs from the 1930s show truck gardens surrounding Crystal Cove maintained by the Japanese. The Japanese community supported a language school located on the terrace above Crystal Cove. With the start of World War II, the Japanese were removed; their schoolhouse was moved closer to Crystal Cove, and was used by the Marines guarding the coast. Later, this structure was converted to a cottage, and it still remains.

Crystal Cove today includes 46 wood frame structures located at the mouth of Los Trancos Canyon, between the Pacific Coast Highway and the ocean. Over the years, the one-room thatched cottages of the 1920s have expanded to fit the needs of families residing there. Normally, as families grew in number, so did the number of rooms. This expansion has taken place without the aid of an architect and has resulted in unique designs, in which no two cottages are alike. Most cottages are of single-wall construction, and feature sash windows with wood frames, French windows, or picture windows. The windows of one cottage were transferred from a coach of the old interurban electric railway that ran between Long Beach and Balboa Beach. Exterior siding varies from wood shingles to board-and-batten. With the exception of a few cottages that have aluminum window framing, most cottages have preserved their unique architectural characteristics.

Based on the vernacular architecture of the cottages, Crystal Cove was placed on the National Register as a Historic District on June 15, 1979.

Even today, Crystal Cove preserves a sense of time and place that cannot be reconstructed in Southern California beach communities. We no longer have Model Ts as in the 1920s, but visitors can still tour from Los Angeles and enjoy the ocean views along the Irvine Coast, and can spend a day enjoying the beaches. Roadside refreshments that were once an important part of early highway travel are still offered by the Date Shake Stand located above the Crystal Cove community. At one time along California's coast, there were many resort communities such as Crystal Cove, but today, few remain for the enjoyment of Californians.

Description of Cultural Features

Native American Resources

There are 31 Native American sites in Crystal Cove State Park, divided into six geographic areas. Area 1, the coastal strip between Crystal Cove and Cameo Shores including the small inland portion at Crystal Cove, contains five recorded or re-recorded Native American sites, and two Native American sites the survey team was unable to rediscover. CA:ORA:660 was recorded in 1977 by Archeological Research, Inc. The site is in the far northwest corner of the park unit, and may continue off state park property into the 50-acre portion that has been set aside by the Irvine Company for development. The previous designation for the site was Cameo Shores #1, meaning that it was recorded by William Wallace in 1956 and 1957. The site is oval-shaped, with two concentrations of shell and some chip stone and ground stone tools. Shell species noted include Haliotis (abalone), Mytilus (mussel), and Protothaca (clam). Rock materials include chert, quartz, quartzite, and other materials. No features or burials were noted on this site. The 50 x 150 m site has been disturbed and spread by grading for a dirt road. Irvine Company location notes locate the site in Township 7 South, Range 9 West, Section 131.

CA:ORA:130 was re-recorded by Archeological Research, Inc., in 1977, and was previously known as Cameo Shores #2, indicating that it was recorded by Wallace in 1956 and 1957. The 80 x 250 m site is relatively oval-shaped on the west side of a drainage, and is characterized by a heavy concentration of shell, dark, organically enriched soil, and a certain amount of ground stone and chip stone tools. The site has been partially paved by an oiled asphalt parking lot, and has been seriously damaged by the cutting of a road down to the beach. The Irvine Ranch location is Township 7 South, Range 9 West, Section 131.

CA:ORA:147 is a shallow, oval area of shell-rich, organically enriched soil, with a moderate lithic scatter. The site is 250 by 300 meters. It was previously recorded in 1977 by Archeological Research, Inc., and is noted as Cameo Shores #3, indicating that it was first recorded by Wallace in 1956 and 1957. The Irvine Ranch location is in Township 7 South, Range 9 West, Section 131.

CA:ORA:246 is an area of moderately rich organic soil, with a moderate shell and lithic context. The site is approximately 125 by 100 meters. It is located directly inland from Crystal Cove, on the inland side of Highway 1. It is in Township 7 South, Range 9 West, Section 131.

CA:ORA:661 was noted by Archeological Research, Inc. in 1977 as Cameo Shores #4, indicating that it was surveyed and identified by Wallace in 1956 and 1957. The 1980 Cultural Heritage Planning survey was unable to relocate the site. The site, should it exist, would be about 20 by 135 meters. The Irvine Company location would be Township 7 South, Range 9 West, Section 131.

The last Native American resource noted to Region 1 is CA:ORA:1. ORA:1 was first identified in 1929. The site is currently overlain by the Crystal Cove National Registry District. A thorough reexamination of the site zone on several occasions by the 1980 survey team failed to identify any remaining portion of the site. It can only be assumed that the site has been completely destroyed by construction of Crystal Cove historic structures. That would be in Township 7 South, Range 9 West, Section 131.

Geographic Area 2, the area around the mouth of Moro Canyon, contains four large Native American sites. CA:ORA:323 is located on the marine terrace adjacent to the mouth of Moro Canyon on the north side, and extends up past Reef Point. The site zone stretches more than 700 meters upcoast from the mouth of the canyon, and consists of three loci. These supplemental upcoast loci were identified for temporary purposes as CCT6 and CCT7. ORA:323 can be described as an extremely large, shallow, shell- and lithic-rich cultural deposit, representing a portion of a large village complex that surrounded the mouth of Moro Canyon. The site was recorded in 1972 by Archeological Research, Inc. There is no noted previous recording. The Irvine Company designation is Township 7 South, Range 9 West, Section 164.

CA:ORA:324 is located in the bottom of Moro Canyon, starting about 350 meters inland from Highway 1 and stretching up the canyon for approximately 350 meters. The site is 100 meters wide. This site is a shell- and lithic-rich cultural deposit in the bottom of the canyon that has been damaged by erosion and road cuts. It is located in Township 7 South, Range 9 West, Section 164.

CA:ORA:280 is located on the north side of Moro Canyon, stretching inland from the highway and under a portion of the upper construction of the El Morro Trailer Park and El Morro School. The site is 600 meters long by 400 meters wide. It consists of a shell- and lithic-rich cultural deposit more than 1 meter in depth, and probably represents the remains of a large, permanent village site. The site has been badly damaged by construction of the upper terrace of the El Morro Trailer Park. It is located in Township 7 South, Range 9 West, Section 164.

CA:ORA:281 is the last of the four large sites surrounding the mouth of Moro Canyon. It is located on the south side of the canyon mouth, directly above the trailer park. The site is 500 meters by 350 meters, and is a shell- and lithic-rich cultural deposit, exhibiting an extremely dark midden soil. It is the best preserved of the large village sites at Crystal Cove State Park. It is in Township 7 South, Range 9 West, Section 164.

Area 3 is the bottom of Moro Canyon, from approximately 2,000 yards inland stretching to approximately 2.5 kilometers inland, at the 400-foot elevation. The area contains eight open-air sites.

CA:ORA:325 is a shell midden about 40 by 120 meters, at an elevation of approximately 120 feet. It is in Township 7 South, Range 9 West, Section 163.

CA:ORA:326 is a small shell midden about 50 meters in diameter. It is located in Township 7 South, Range 9 West, Section 163.

CA:ORA:327 is a moderate shell midden of about 20 by 35 meters. It is located in Township 7 South, Range 9 West, Section 163.

CA:ORA:328 is a large workshop area and shell midden of medium dark sandy loam. It is 50 by 300 meters in size. It is located in Township 7 South, Range 9 West, Section 163.

CA:ORA:329 consists of two small areas of scattered shell on either side of Moro Creek. Each area is approximately 20 meters in diameter. The site is located in Township 7 South, Range 9 West, Section 162.

One site (temporary designation, ICS1) is a moderate shell midden, 60 meters in diameter. It is located in Township 7 South, Range 9 West, Section 162.

CA:ORA:330 is a temporary occupation site with a dark shell midden 20 by 150 meters in area. It is in Township 7 South, Range 9 West, Section 162.

CA:ORA:331 is a temporary occupation site with a shell midden. It is approximately 75 by 150 meters in extent. The site also includes a bedrock outcropping with six mortar cups. It is in Township 7 South, Range 9 West, Section 162.

Area 4 consists of all lands south and east of Moro Canyon.

CCT10 consists of a set of rock shelters containing three shelters with midden aprons, and several other shelters not exhibiting a midden apron. The site area is 100 by 150 meters. It is in Township 7 South, Range 9 West, Section 160.

CCT11 is a single rock shelter with a midden apron. It is about 20 by 30 meters. It is in Township 7 South, Range 9 West, Section 166.

CA:ORA:332 is a set of some 27 rock shelters, including three with midden aprons. The rock shelter zone is approximately 100 meters by 500 meters long. It is located in Township 7 South, Range 9 West, Section 166.

Area 5 includes lands within the park boundaries located on the north side of Moro Canyon. It consists of two small rock shelter zones and a single open-air site.

CCT12 is a single rock shelter about 10 by 15 meters in size, including a midden apron. It is in Township 7 South, Range 9 West, Section 161.

CCT13 is a set of rock shelters, including one with a midden apron. The area is approximately 25 by 30 meters. It is in Township 7 South, Range 9 West, Section 162.

The open-air site in this zone is CCT14. It is a cultural deposit exhibiting shell and lithic materials, with an area of about 30 by 50 meters. It is in Township 7 South, Range 9 West, Section 163.

The final zone consists of the 350-acre parcel in the northwest portion of the unit. There are four rock shelter sites and one open-air site in this area.

Site CCT16 consists of one rock shelter 2 by 4 meters. It is in Township 7 South, Range 9 West, Section 162.

CCT50 consists of one rock shelter 10 by 15 meters in extent. It is in Township 7 South, Range 9 West, Section 161.

CCT51 consists of three rock shelters, two exhibiting midden aprons. It is about 15 by 50 meters in extent. It is in Township 7 South, Range 9 West, Section 162.

CA:ORA:333 consists of three rock shelters, one with midden apron. It is approximately 20 by 60 meters in extent. The site is in Township 7 South, Range 9 West, Section 161.

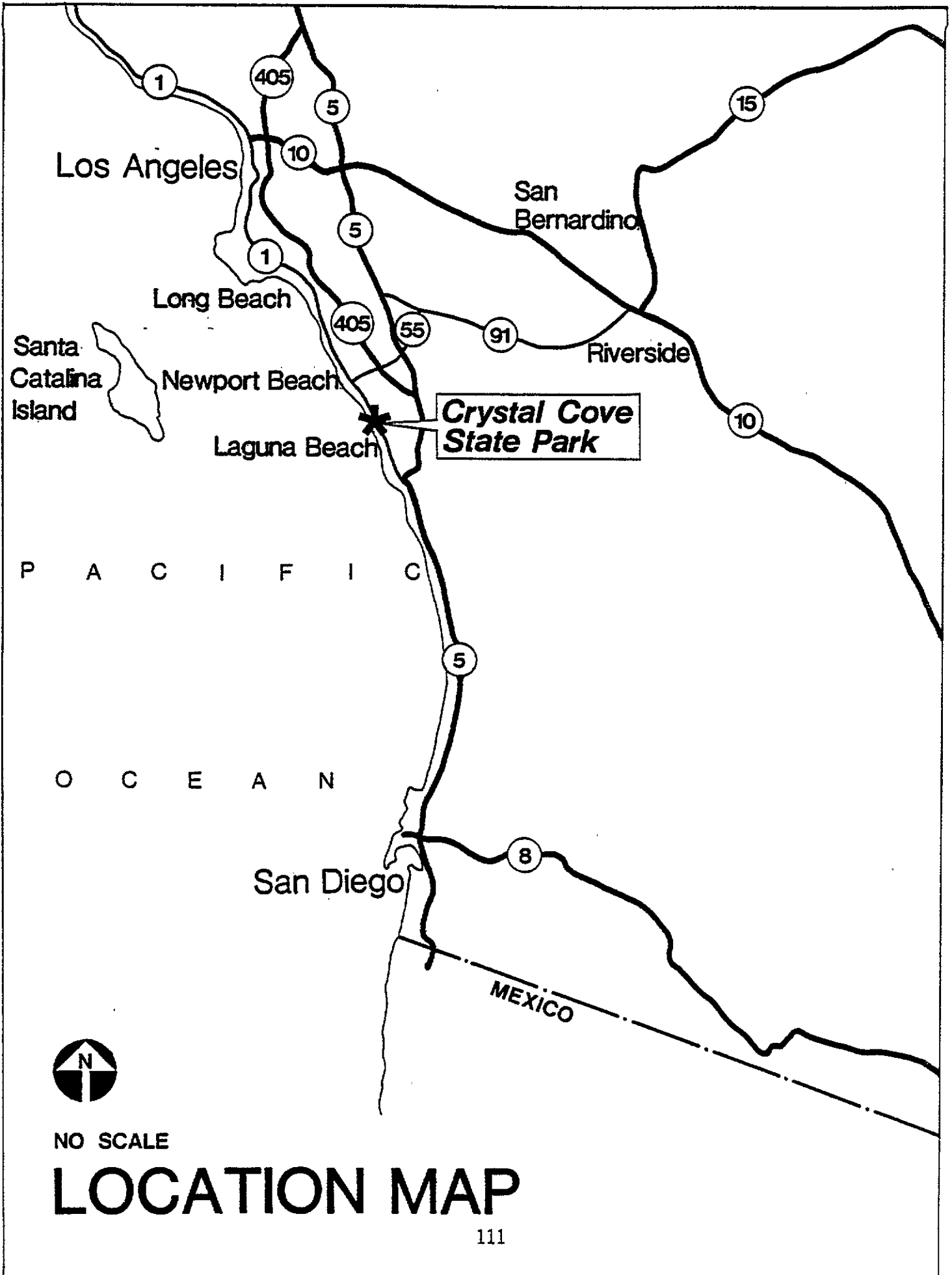
CCT52 is an open-air site, consisting of a temporary village and shell processing zone with a midden deposit. It is 25 by 50 meters in extent. It is in Township 7 South, Range 9 West, Section 162.

Site records, site-specific maps, and all referenced documents pertaining to site locations and site significance data in Crystal Cove State Park are on file with the Resource Protection Division of the State Department of Parks and Recreation.

APPENDIX B

Maps

	<u>Page</u>
Location.....	111
Existing Conditions.....	113
Interim Facilities.....	115
Generalized Cultural Resource Location.....	117
Allowable Use Intensity.....	119
Land Use and Facilities.....	121



Los Angeles

San Bernardino

Long Beach

Santa Catalina Island

Newport Beach

Laguna Beach

Crystal Cove State Park

Riverside

San Diego

P A C I F I C

O C E A N

MEXICO



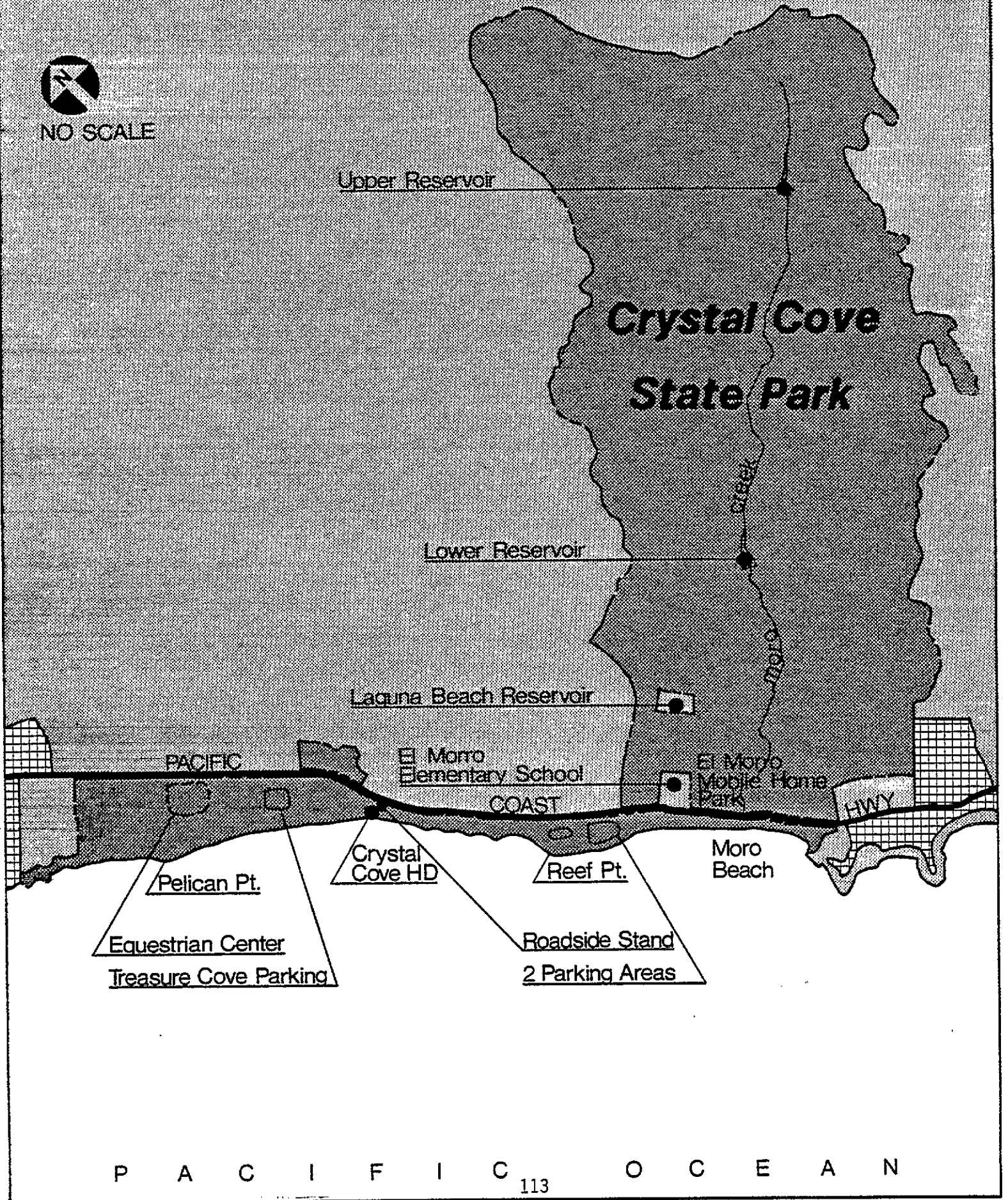
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LOCATION MAP

EXISTING CONDITIONS



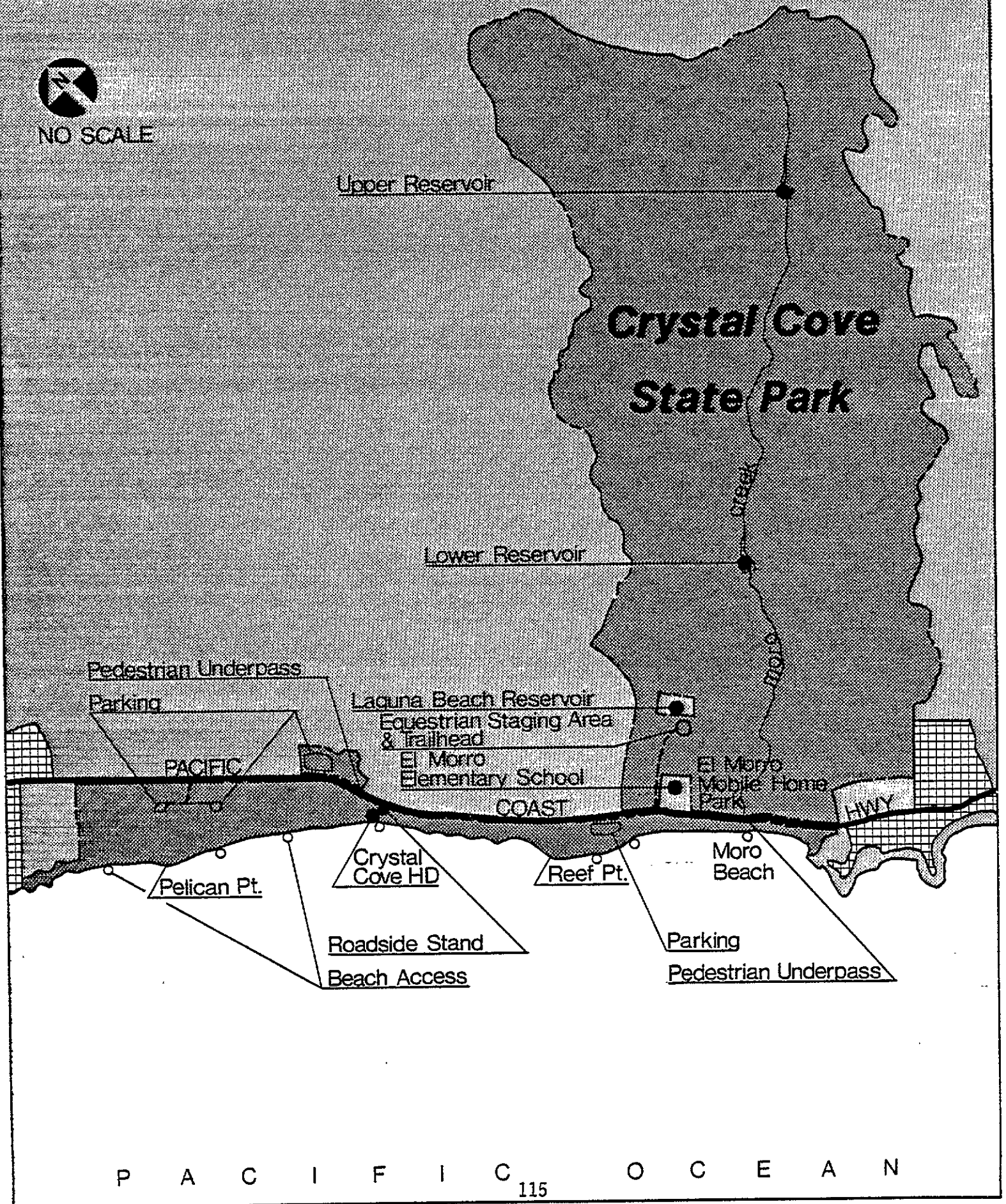
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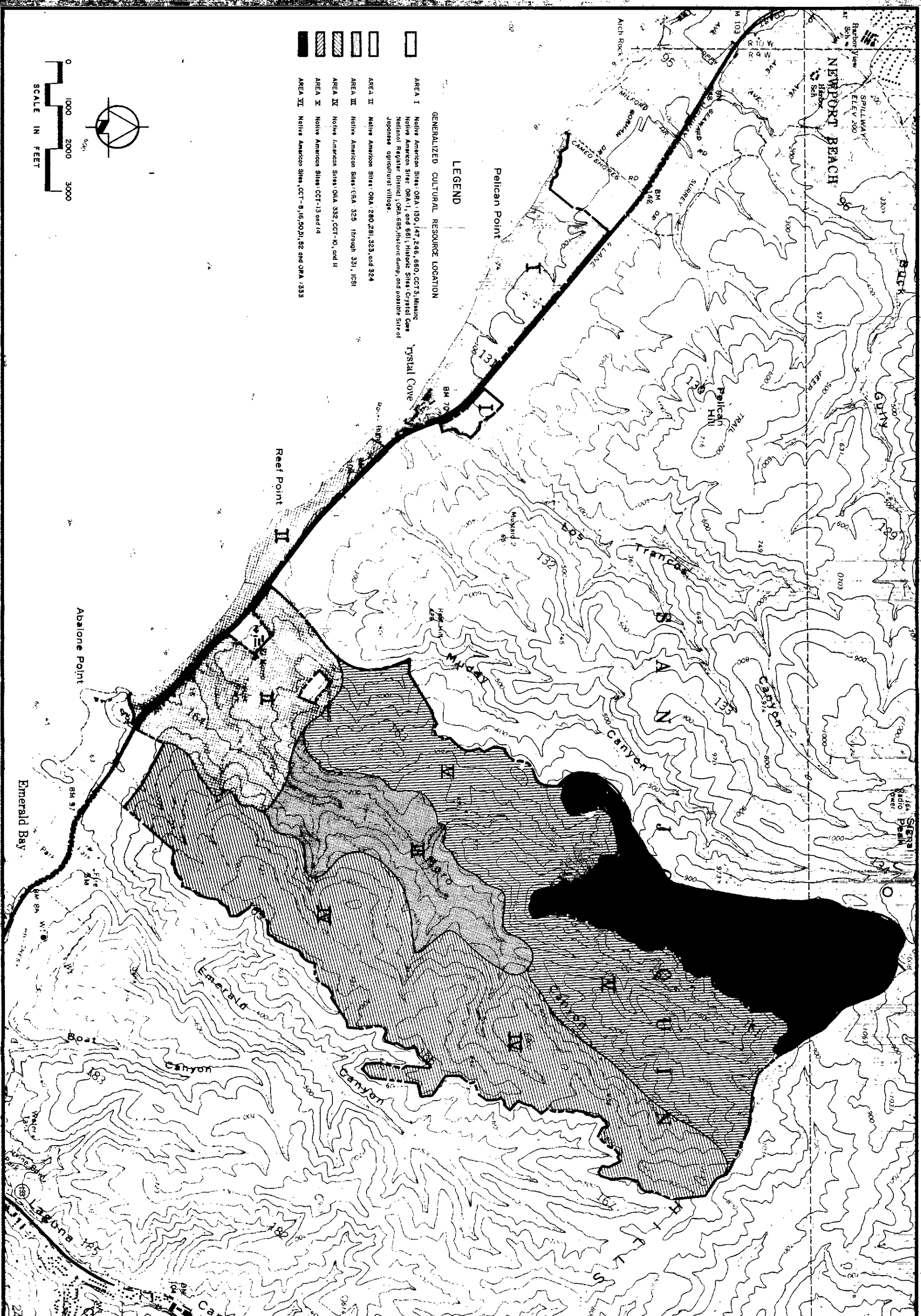


INTERIM FACILITIES









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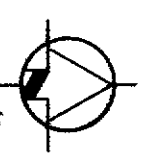
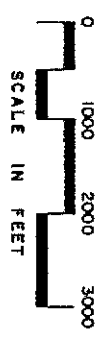




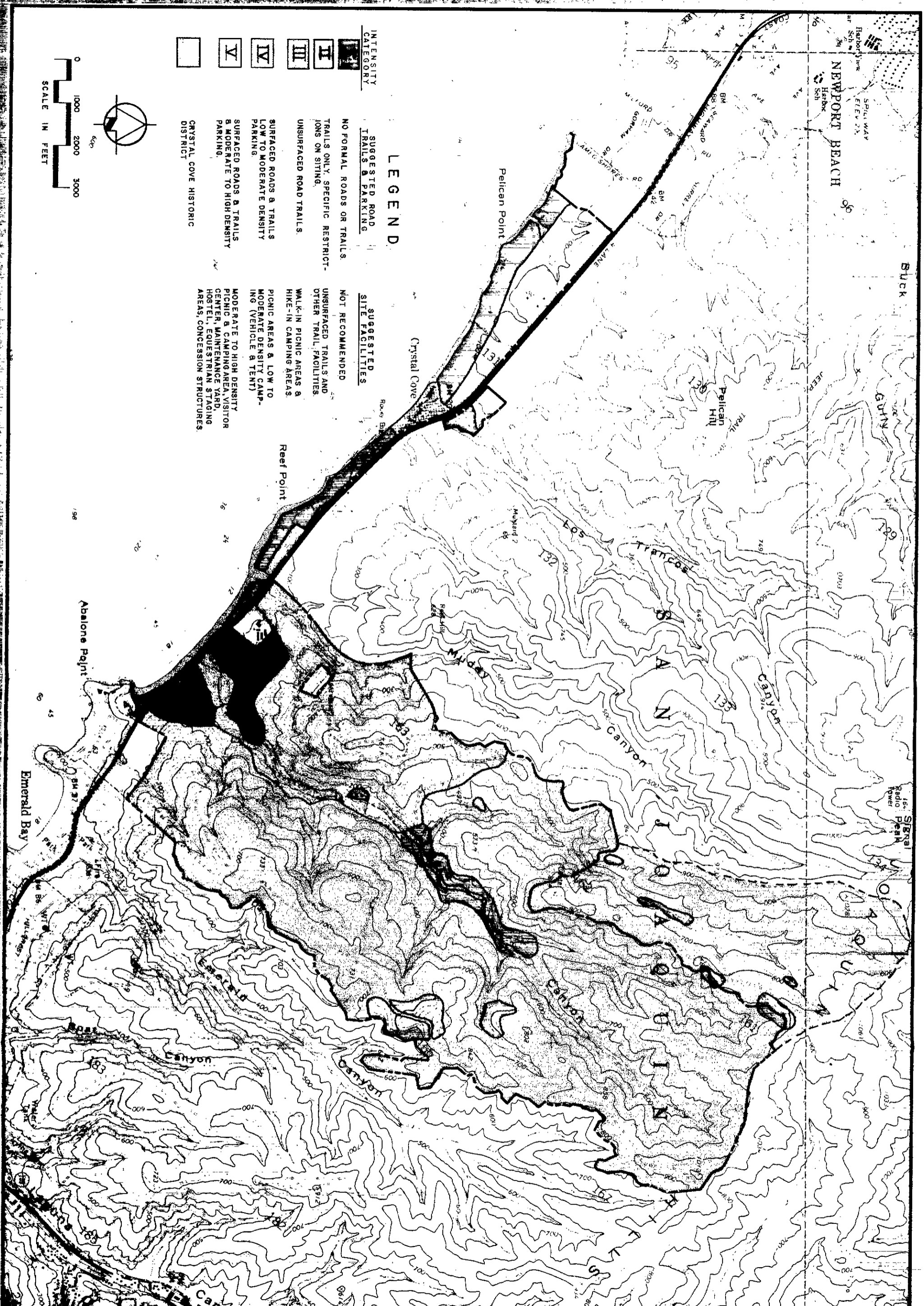
LEGEND

GENERALIZED CULTURAL RESOURCE LOCATION

-  AREA I
 Native American Sites: ORA: 130, 147, 246, 560, CCT-3, Missing Native American Sites: ORA: 1, and 681; Historic Sites: Crystal Cove National Register District: ORA: 685; historic dump, and possible Site of Japanese agricultural village.
-  AREA II
 Native American Sites: ORA: 280, 281, 323, and 324
-  AREA III
 Native American Sites: ORA: 325 through 331, ICSI
-  AREA IV
 Native American Sites: ORA: 332, CCT-10, and 11
-  AREA V
 Native American Sites: CCT-13 and 14
-  AREA VI
 Native American Sites: CCT-8, 16, 30, 31, 52 and ORA: 333



1 of 2	DRAWING NO. 17834	CRYSTAL COVE STATE PARK RESOURCE ELEMENT GENERALIZED CULTURAL RESOURCE LOCATION	RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION APPROVED: <i>[Signature]</i> DATE: <u>July 1, 1971</u>	REVISIONS DATE DESIGNED DRAWN CHECKED
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LEGEND

INTENSITY CATEGORY

I SUGGESTED ROAD TRAILS & PARKING

II NO FORMAL ROADS OR TRAILS TRAILS ONLY, SPECIFIC RESTRICTIONS ON SITING.

III UNSURFACED ROAD TRAILS.

IV SURFACED ROADS & TRAILS LOW TO MODERATE DENSITY PARKING.

V SURFACED ROADS & TRAILS MODERATE TO HIGH DENSITY PARKING.

VI CRYSTAL COVE HISTORIC DISTRICT

SUGGESTED SITE FACILITIES

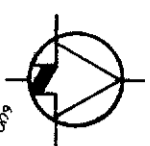
NOT RECOMMENDED

UNURFACED TRAILS AND OTHER TRAIL FACILITIES.

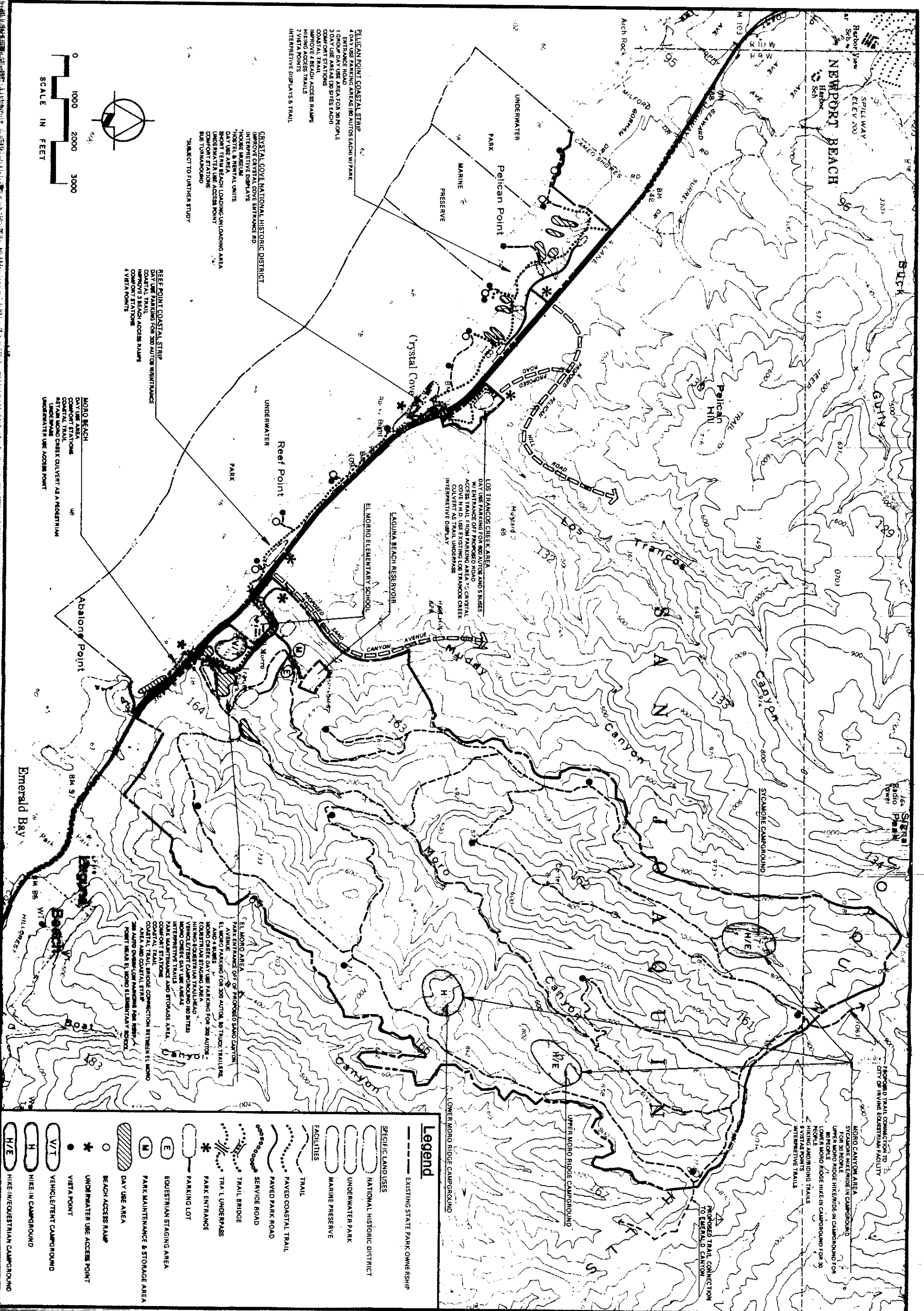
WALK-IN PICNIC AREAS & HIKE-IN CAMPING AREAS.

PICNIC AREAS & LOW TO MODERATE DENSITY CAMPING (VEHICLE & TENT).

MODERATE TO HIGH DENSITY PICNIC & CAMPING AREA, VISITOR CENTER, MAINTENANCE YARD, HOSTEL, EQUESTRIAN STAGING AREAS, CONCESSION STRUCTURES.



SHEET NO. 2 OF 2	PROJECT NO. 17834	CRYSTAL COVE STATE PARK RESOURCE ELEMENT ALLOWABLE USE INTENSITY	RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION APPROVED: <i>P. P. ...</i> DATE: <i>5/1/51</i>	REVISIONS DATE DESIGNED DRAWN CHECKED
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PELICAN POINT COASTAL STRIP
 4 DAY USE PARKING AREAS (NO AUTOS EACH W/ PARK
 ENTRANCE ROAD
 1 GROUP DAY USE AREA FOR 30 PEOPLE
 1 DAY USE AREA (30 SITES EACH)
 COASTAL TRAIL
 MARINE PRESERVE
 HIKING ACCESS RAMPS
 HIKING ACCESS TRAILS
 7 VISTA POINTS
 INTERPRETIVE DISPLAYS & TRAIL

CRYSTAL COVE NATIONAL HISTORIC DISTRICT
 IMPROVE CRYSTAL COVE ENTRANCE RD
 IMPROVE TRAILS
 HOTEL & RESTAURANT
 DAY USE AREA
 SHORT TERM BEACH LOADING/UNLOADING AREA
 UNDERWATER USE ACCESS POINT
 COMFORT STATIONS
 RESTROOMS
 SUBJECT TO FURTHER STUDY

REEF POINT COASTAL STRIP
 DAY USE PARKING FOR 300 AUTOS W/ ENTRANCE
 COASTAL TRAIL
 IMPROVE 3 BEACH ACCESS RAMPS
 COMFORT STATIONS
 4 VISTA POINTS

MORO BEACH
 DAY USE AREA
 COMFORT STATIONS
 COASTAL TRAIL
 UNDERWATER USE ACCESS POINT

LOS TRANCOS CREEK AREA
 DAY USE PARKING FOR 800 AUTOS AND 5 BUSES
 W/ ENTRANCE OFF PROPOSED ROAD
 ACCESS TRAIL FROM PARKING AREA TO CRYSTAL
 COVE M.H.D. USE EXISTING LOS TRANCOS CREEK
 CULVERT AS TRAIL UNDERPASS
 INTERPRETIVE DISPLAY

EL MORO AREA
 PARK ENTRANCE OFF OF PROPOSED SAND CANYON
 AVENUE
 EL MORO PARKING FOR 300 AUTOS, 50 TRUCK TRAILERS,
 AND 4 BUSES
 MORGON CREEK DAY USE PARKING FOR 200 AUTOS
 EQUESTRIAN STAGING AREA
 EQUESTRIAN TRAIL
 VISITOR CENTER CAMPING AND 100 SITES
 MORGON CREEK DAY USE AREA
 INTERPRETIVE TRAILS
 PARK MAINTENANCE AND STORAGE AREA
 COMFORT STATIONS
 COASTAL TRAIL
 COASTAL TRAIL BRIDGE CONNECTION BETWEEN EL MORO
 AND MORGON CREEK
 PORT WALKER EL MORO ELEMENTARY SCHOOL

MORO CANYON AREA
 STYCAMORE HIKE/MIDRIDGE CAMPGROUND
 FOR 30 PEOPLE
 UPPER MORO RIDGE HIKE/MIDRIDGE IN CAMPGROUND FOR
 100 PEOPLE
 LOWER MORO RIDGE HIKE IN CAMPGROUND FOR 30
 PEOPLE
 HIKING AND RIDING TRAILS
 VISTA POINTS
 INTERPRETIVE TRAILS

Legend

- EXISTING STATE PARK OWNERSHIP
- NATIONAL HISTORIC DISTRICT
- UNDERWATER PARK
- MARINE PRESERVE
- TRAIL
- PAVED COASTAL TRAIL
- PAVED PARK ROAD
- SERVICE ROAD
- TRAIL BRIDGE
- TRAIL UNDERPASS
- PARK ENTRANCE
- PARKING LOT
- EQUESTRIAN STAGING AREA
- PARK MAINTENANCE & STORAGE AREA
- DAY USE AREA
- BEACH ACCESS RAMP
- UNDERWATER USE ACCESS POINT
- VISTA POINT
- VEHICLE/TENT CAMPGROUND
- HIKE-IN CAMPGROUND
- HIKE/INQUESTRIAN CAMPGROUND

CRYSTAL COVE STATE PARK
GENERAL PLAN
LAND USE AND FACILITIES

RESOURCES AGENCY OF CALIFORNIA
 DEPARTMENT OF PARKS AND RECREATION

APPROVED *[Signature]* DATE July 2, 1982

REVISIONS	DATE	DESIGNED
△ ADDED TRAIL	6-1-82	
		DRAWN AUG. 1981
		CHECKED

DRAWING NO.
18142

SHEET NO.
 07



CRYSTAL COVE STATE PARK GENERAL PLAN
DRAFT PRELIMINARY, INCLUDING A DRAFT
ENVIRONMENTAL IMPACT ELEMENT (REPORT)
SCH 81072350

Copies of the Crystal Cove State Park General Plan Draft, including a Draft Environmental Impact Element (Report), were sent to the following forty-five (45) individuals, organizations, and agencies on November 9, 1981:

State Clearinghouse (10 copies)

Honorable Terry Goggin, Member of the Assembly

Honorable Jerry M. Patterson, House of Representatives

Honorable John Schmitz, Member of the Senate

Honorable Marian Bergeson, Member of the Assembly

Mr. George Hilton

Ms. Cathy Pleines

California Recreational Trails Committee

California Department of Parks and Recreation (Orange Coast Area)
(2 copies)

California Department of Parks and Recreation (Southern Region)
(2 copies)

California Coastal Commission

South Coast Regional Coastal Commission

Orange County Environmental Management Agency

Laguna Beach City Planning Department

Costa Mesa City Planning Department

Southern California Association of Governments

Ms. Pam Davis

Ms. Rebecca C. Nelson

Dr. Robert Mark (Sierra Club Task Force)

Mr. Murray Rosenthal (Sierra Club Task Force)

City of Newport Beach Planning Department

Native American Heritage Commission

Juaneno Band of Mission Indians

Orange County Planning Commission

Mr. Russ Makely

Ms. Sherry Loofbourrow

Mr. John Brand

Mr. Omar Wood

Ms. Virginia McKinney

Mr. Richard Cermak

Ms. Fern Pinkle

Ms. Evelyn Gayman

Orange County Library, Costa Mesa (2 copies)

Newport Beach City Library (2 copies)

Orange County Library, Laguna Beach Branch (2 copies)

California Department of Parks and Recreation (Office of Historic Preservation)

California Department of Transportation (District 7)

California Department of Fish and Game

Department of Transportation Federal Highway Administration

California Department of Boating and Waterways

California Department of Health Services

California Department of General Services

California Department of Fish and Game (Sacramento)

Ms. Joan Kus

Mr. James Tieman

Newspaper ads were placed in the following newspapers: (see attached example).

Los Angeles Times

Santa Ana Register

NOTICE

STATE OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION

The California Department of Parks and Recreation has prepared a General Plan, including Draft Environmental Impact Element (Report) in conformance with the requirements of the California Environmental Quality Act for Crystal Cove State Park, Orange County, California.

Copies of the document are available for public review at the following locations:

California Department of
Parks and Recreation
Southern Region
2505 Congress Street
San Diego, CA 92110

California Department of
Parks and Recreation
Orange Coast Area
13331 Enterprise Lane
Huntington Beach, CA 92648

Orange County Library
566 West Center
Costa Mesa, CA 92627

Newport Beach City Library
Carona Del Mar Branch
420 Marigold Avenue
Carona Del Mar, CA 92625

Orange County Library
363 Glenneyre
Laguna Beach, CA 92651

Any written comments or questions on the Crystal Cove State Park General Plan, including Draft Environmental Impact Element (Report) must be sent to James M. Doyle, Supervisor, Environmental Review Section, California Department of Parks and Recreation, P.O. Box 2390, Sacramento, CA 95811 and received prior to 1981 DEC 25. Please telephone (916) 322-2481 for additional information.

DEPARTMENT OF PARKS AND RECREATION

P.O. BOX 2390
SACRAMENTO 95811

(916) 322-2481

Dear

The Department of Parks and Recreation has received your comments on the Crystal Cove State Park Preliminary General Plan, including Environmental Impact Element (Report), SCH 81072350.

We appreciate your taking the time and effort to review the Plan and to prepare comments. However, we regret to inform you that your comments were received after December 24, the close of the review period, and will not be included in the Final Environmental Impact Report, although they will be used as part of the data base for future planning and will be presented along with the Preliminary Draft Environmental Impact Report to the State Park and Recreation Commission for their consideration at their March 12, 1982 meeting. The meeting will be held at:

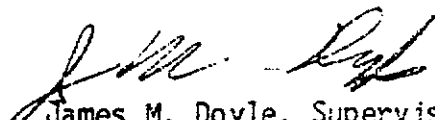
City Hall Police Annex Auditorium
23 Civic Center Plaza
Santa Ana, CA 92701
Meeting begins at 8:00 a.m.
Public Hearing begins at 9:00 a.m.

People wishing to participate in the public hearing and comment on the Plan are invited to do so at that time.

A copy of the Final Environmental Impact Report will be sent to you when it has been completed.

Thank you for your interest.

Sincerely,


James M. Doyle, Supervisor
Environmental Review Section

0-0176R

Comments were received from the following agencies, organizations, and individuals:

<u>NAME</u>	<u>DATE RECEIVED</u>
1. Ronald Kenney	12-29-81
2. City of Newport Beach	12-24-81*
3. Juaneno Band of Mission Indians	12-24-81*
4. Orange County Transit District	12-9-81*
5. Desomount Club	1-1-82
6. City of Laguna Beach	12-24-81*
7. Department of Boating and Waterways	12-24-81*
8. Native American Heritage Commission	12-24-81*
9. Thomas F. Riley, Supervisor, 5th District	1-15-82
10. California Coastal Commission	12-24-81*
11. County of Orange (EMA)	12-31-81
12. Laguna Greenbelt	12-29-81
13. Friends of Irvine Coast	12-29-81
14. Irvine Ranch Water District	12-29-81
15. County of Orange (EMA)	1-4-82
16. Irvine Company	1-4-82
17. Mission Viejo Company	1-11-82
18. California State Horsemen's Association	1-11-82
19. Department of Boating and Waterways	12-24-81*
20. Irvine Coast Equestrian Planning Committee	12-15-81

* COMMENTS WERE RECEIVED PRIOR TO THE END OF THE REVIEW PERIOD.

The attached letter was sent to those individuals/agencies whose comments were received after the end of the Review Period. (see next page)

I-0179R



CITY OF NEWPORT BEACH

PLANNING DEPARTMENT
(714) 640-2197

December 22, 1981

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

Dear Mr. Doyle:

Thank you for the opportunity to review the General Plan/Environmental Impact Report for the Crystal Cove State Park. The City of Newport Beach reviewed the plan in detail and has a number of comments and questions. Major items of concern are:

(E-1) Limitation of Public Access. The plan proposes that Crystal Cove State Park be used primarily to protect resources and that access be limited both to the canyons and to the shoreline. This is contrary to the needs in Orange County which has a need for active recreational facilities. The restrictions on access to the beach and the limitations on available parking are particularly significant when considering the severely overcrowded beach conditions which are currently experienced by the surrounding communities of Laguna Beach, Newport Beach and Huntington Beach, and also by nearby State park beaches of Doheny Beach, Corona del Mar, Huntington Beach and Bolsa Chica Beach.

(E-2) The Crystal Cove Park plan provides for 1570 total parking spaces for 3.25 lineal miles of coastline. By comparison, Corona del Mar State Beach provides 488 parking spaces for 0.23 lineal miles of coastline. This is more significant when the 1570 parking spaces are to serve the entire 2,731 acres.

(E-3) 2) Participation of Surrounding Communities. It is the position of the City of Newport Beach that this plan should be reviewed formally by the adjacent communities of Laguna Beach, Irvine, and Newport Beach, and also by the County of Orange. Additional review time should be allocated in order that public hearing on the plan may be scheduled before the legislative bodies of each of these jurisdictions.

E-4

- 3) Adequacy of Environmental Documentation. The Environmental Documentation is not adequate in the following areas:
- a) Cumulative and secondary impacts are not addressed.
 - b) The EIR does not statistically describe the proposed project versus what currently exists.
 - c) There is no description of the Regional/Local Setting.
 - d) The document does not contain the documentation of the Notice of Preparation.

Additionally, attached to this letter is a detailed list of comments and questions relative to each element of the Crystal Cove State Park General Plan. If you have any questions, please call me at the above number.

Very truly yours,

PLANNING DEPARTMENT
JAMES D. HEWICKER, Director

by


FRED TALARICO
Environmental Coordinator

FT/PT/kk

Summary

- E-5 1) Consistently Corona del Mar is referred to in the document as a separate community. Corona del Mar is part of the City of Newport Beach.
- E-6 2) The statement that the park contains some of the last remaining undeveloped coastal property in Southern California should be defined as being Orange County, Los Angeles County, San Diego County, etc.
- E-7 3) Are the offshore submerged lands that may be added to the park part of the plan?
- E-8 4) How large a region was considered for the regional planning considerations?
- E-9 5) Did the study include the Urban National Park concept?
- E-10 6) Are there any use intensity limits in the Crystal Cove Historic District?
- E-11 7) The listings for the picnic/day-use areas should all be given by capacity (number of people).
- E-12 8) Two of the overnight areas are listed as "ride-in." Are these for horses?
- E-13 9) The access to be provided for the elderly and handicapped should be listed.

Introduction

- E-14 1) Will future specific proposals be subject to CEQA?
- E-15 2) Is the Environmental Impact Element part of the plan?
- E-16 3) If this General Plan serves as the Environmental Impact Report, it does not meet all the requirements of CEQA (see additional comments on the Environmental Impact Element).
- E-17 4) To what does the "Southwest Mountain and Valley Landscape Provinces" refer?
- E-18 5) The plan states that an extensive arterial highway and free-way system serves this region but does not address the adequacy of the system.
- E-19 6) How do the proposed dedications of the Local Coastal Program and the preservation efforts of the Laguna Belt, Aliso Greenbelt and Urban National Park proponents fit into the project description? Are they part of the plan?
- E-20 7) Why are resource descriptions included in the project descriptions.
- E-21 8) The section describing public involvement should include the location of and attendance at the meetings.
- E-22 9) How broad was the survey of needs? Was it a scientific sample?

Resource Element

- (E-23) 1) New acquisitions for Crystal Cove State Park should require an amendment to the General Plan.
- (E-24) 2) What are the constraints on activity on the coastal terraces?
- (E-25) 3) Is there any difference in climate between the coastal and canyon portions of the park?
- (E-26) 4) The plan states that the major source of beach sand originates in and near the park. Is this the major source for the park? Newport Beach? Laguna Beach? Orange County?
- (E-27) 5) The plan states that changes in land use or modifications to the existing landscape may affect beach sand supply. What is the source of information? Do all changes result in a negative effect? Are there any changes which could result in a more beneficial situation?
- (E-28) 6) To what extent do slope failure and earthquake damage limit recreational development?
- (E-29) 7) The magnitude of bluff erosion should be quantified. What part does bluff erosion play in beach replenishment.
- (E-30) 8) What is the extent of each plant community? Do any of these limit recreational development, and if so, why?
- (E-31) 9) To what extent are the two rare plant species found in the park and in adjacent undeveloped areas?
- (E-32) 10) Where is the California Least Tern found near the project area? Does the park contain any areas considered to be critical habitat for the Least Tern?
- (E-33) 11) The section on Marine Life should include a discussion of the Outer Continental Shelf development and the State Tidelands Act.
- (E-34) 12) The plan states that the park is located amidst dense urban development. What is the definition of dense? Laguna Beach and Newport Beach are predominantly low-density residential in character.
- (E-35) 13) How many people reside within 1, 5, 10 and 20 miles of the site? How many will reside at buildout?
- (E-36) 14) The Resource Section does not delineate needs.
- (E-37) 15) What type of authority or what kind of influence does the State have in the "Zone of Primary Interest."
- (E-38) 16) Do the existing reservoirs provide a resource for active recreational uses?

- (E-39) 17) Please map the areas to be included in the bluff protection zone. Please provide the supporting documentation for placement of these areas in this very restrictive designation. Will there be any access or permitted uses in these areas?
- (E-40) 18) What effect will the policy on allowing grasslands to revert to scrub or chaparral have on fire suppression needs?
- (E-41) 19) Since the plant resources' policies lead in the direction of increased fire hazard, will the State be able to provide total fire protection or will cost be incurred by nearby localities expected to participate in fire planning programs.
- (E-42) 20) The protection from wildfires' policies should be coordinated with all adjacent jurisdictions during implementation of the General Plan.
- (E-43) 21) Do any of the surface water areas within the park have any vector control problems?
- (E-44) 22) Will the marine life resources area be managed differently than similar areas in Newport Beach and Laguna Beach?
- (E-45) 23) A policy regarding off-shore oil drilling would be appropriate in the Marine Life Resources Section.
- (E-46) 24) Describe the types of measures which may be taken to ameliorate the impacts of the equestrian facility.
- (E-47) 25) The criteria used in developing allowable use categories and the supporting data on resource constraints and sensitivity should be included in the documentation in that they are the primary justification for the limited use proposed in the park plan.
- (E-48) 26) The statement that "the purpose of Crystal Cove State Park make available to the people for their enjoyment...a significant open space area..." is very important and should be at the beginning of this document.

Land Use and Facilities Element

- E-49 1) Discussion of the regional setting is inadequate.
- E-50 2) There is a conflict between the recreational needs outlined and the proposed plan for a minimum of recreational development.
- E-51 3) How many regional day-use visitors can be expected and how does this compare to the adjacent cities of Laguna Beach and Newport Beach?
- E-52 4) An objective of the plan is to support and encourage proposals for increased use of alternative transportation. There does not appear to be any monetary or planning support for this concept other than a severe restriction on available parking facilities.
- E-53 5) Placement of a significant portion of parking facilities on the inland side of Pacific Coast Highway conflicts with the plan objective of safe and convenient access to sandy swimming beach areas.
- E-54 6) Will there be parking provided in the Historic District?
- E-55 7) The plan concentrates intensive developments in two locations: Crystal Cove and Moro Cove. Why can't these facilities be spread out if the whole coastal shelf is disturbed?
- E-56 8) The primary design concept for the park is for extensive trail development. Won't most visitors drive to the park, and isn't the major demand for swimming/sunbathing?
- E-57 9) What provisions for marine safety will be made for the Marine Ecological Preserve and the Underwater Park Area.
- E-58 10) What parking is proposed for beach visitors? Is it located conveniently for families with small children and elderly people?
- E-59 11) How accessible is the Pelican Point Coastal Strip, since it is a quality recreational and educational area?
- E-60 12) How much of four sixty-car areas for trail access are for day use?
- E-61 13) How important is Sand Canyon Road (proposed) to the functioning of the park? Should development of the park be phased with roadway construction and improvements?
- E-62 14) How far will day-use visitors need to walk to get to the various destinations?
- E-63 15) What is the timing for construction of the group day-use and overnight campground facilities?

- E-64 16) Development of overnight camping on the El Morro Mobile Home site will put the RV's in a most visible location from the highway. A mitigation measure should be proposed addressing this impact.
- E-65 17) How does the campground intensity of six sites per acre compare to Newport Dunes, San Clemente, Doheny Beach and San Onofre.
- E-66 18) How many square feet of operational and administrative facilities are being proposed?
- E-67 19) Where is on-site staff housing to be provided? Where will the balance of the staff reside?
- E-68 20) What is the proposed park entrance fee?
- E-69 21) Are there any capacity or supply constraints on water, sewage, and power needs for the park?
- E-70 22) The General Plan should include details of services and locations for concession facilities.
- E-71 23) What is the justification for maintenance of the snack shack in its present location? It is not located in an area easily accessible to park visitors; it is only accessible to through traffic on Pacific Coast Highway.
- E-72 24) Given the location of the parking facilities, a park tram shuttle should be provided. Day use will be severely restricted if there is no tram system.
- E-73 25) Assuming the instantaneous capacity number of 7,480 visitors is appropriate, a minimum of 2,137 parking spaces should be provided (one parking space per 3.5 visitors). Are these provided?
- E-74 26) The plan gives a turnover rate of 2.0. Newport Beach experiences a turnover rate of 3.0+.
- E-75 27) How does the phasing of increased park operations relate to Pelican Hill Road and Sand Canyon Road?

Interpretive Element

- E-76 1) One interpretive theme is how ranching preserved the land from development. Isn't ranching a form of development?
- E-77 2) A sub-theme should be added addressing the relationship with the adjacent communities of Laguna Beach and Newport Beach.
- E-78 3) Has consideration been given to provision of an archaeological/paleontological museum and center in the Crystal Cove area?
- E-79 4) Since the area has great educational value, has consideration been given to additional educational facilities through cooperation with the University of California, Irvine and California State University, Fullerton?
- E-80 5) Why are no audiovisual programs proposed?
- E-81 6) How is access to Moro Canyon achieved?
- E-82 7) Why is the coastal terrace area only proposed for day use?
- E-83 8) How many day beach visitors are expected to use the interpretive facilities and trails? Aren't most people going to the beach simply to sunbath and swim?
- E-84 9) Why can't the inland Crystal Cove Area be more actively used?
- E-85 10) Where is the proposed point of origination for boat tours of the marine preserve.
- E-86 11) What is the definition of "environmental living"?

Operations Element

E-87

1) How many day-use visitors currently use the park per year and how much parking is currently provided?

E-88

2) The section on Administrative Needs should discuss numbers of employees and necessary housing in detail.

E-89

3) What basic services are provided at similar coastal park units. Compare what is to be provided at Crystal Cove with Huntington State Beach, Bolsa Chica State Beach, Doheny State Beach, etc.

Environmental Impact Element

- E-90 1) Will EIR's be prepared for subsequent specific projects and improvements.
- E-91 2) On what specifically will the two million dollars for interim facilities be spent.
- E-92 3) The Element does not follow the State EIR Guidelines.
- E-93 4) Document does not contain the documentation of the Notice of Preparation.
- E-94 5) The land immediately adjacent to the park is not commercial, residential and industrial; it is vacant.
- E-95 6) The document states that the creation of the Orange Coast National Urban Park adjacent to Crystal Cove State Park is not actively being pursued; this is not true.
- E-96 7) The population section should show population within the 15, 30 minute 1, 2 hour travel time frame and the 5, 10, 30, 60 mile radius frame.
- E-97 8) EIR does not address secondary cumulative impacts on adjacent beach areas resulting from the restricted access proposed in the plan.
- E-98 9) What affect will erosion control and drainage structures have on the sand supply necessary for beach replenishment.
- E-99 10) Mitigation measure regarding runoff from Reef Point, Crystal Cove and Pelican Point parking areas' runoff is not adequate. Construction and operational phases' mitigation measures are needed now or in subsequent environmental documents.
- E-100 11) Mitigation measures regarding surface water runoff are inadequate. Additional mitigation measures addressing pollution controls (e.g., vacuum sweeping of parking lots, etc.) will need to be addressed now or in subsequent environmental documents.
- E-101 12) All mitigation measures should be numbered for easy reference.
- E-102 13) The mitigation measures do not specifically delineate the actions which are to be taken as part of the proposed project.
- E-103 14) If a controlled burn program is instituted by the Department of Parks and Recreation for the Crystal Cove Park, a fire protection should also be completed prior to commencement of said program.

- E-104 15) There is no mitigation measure which addresses vehicle miles traveled.
- E-105 16) The mitigation measure addressing the air quality impacts of construction does not adequately address the impact in that the acceptable level of mitigation is not quantified.
- E-106 17) The noise effects of the vehicle miles traveled on the highway from Laguna Beach to Newport Beach are not addressed and no mitigation measures are proposed.
- E-107 18) Mitigation measures should be included in the noise section addressing limits on construction during weekends and also limiting the hours of construction to specific hours of the day.
- E-108 19) The Land Use Section does not address the cumulative and secondary impacts the plan will have on land use and recreational facilities in the adjacent communities.
- E-109 20) The plan states that the people living in the trailer park and Crystal Cove will be relocated to Laguna Beach or Newport Beach. Is this possible considering the housing costs found in these communities? The plan also states that the Park Ranger and maintenance staff will also live in Newport Beach or Laguna Beach. The same question regarding housing costs applies.
- E-110 21) How does the mitigation regarding relocation assistance to qualified persons per California Government Code Section 7260 relate to the relocation of the equestrian center?
- E-111 22) Mitigation measures for the effects of fire hazard should include development of a program to be adopted and approved by the County of Orange and all adjacent jurisdictions for cooperative fire-fighting agreements and plans.
- E-112 23) The locations of fire and paramedic services should be discussed in the plan.
- E-113 24) It is proposed that parking areas not be lighted. Why can't the beach be used after dark for such activities as cook-outs, etc.?
- E-114 25) The section on Public Services should address the response times for Orange County Sheriff and Fire Department and be compared to those of adjacent jurisdictions.
- E-115 26) Mitigation measures for transportation include additional signals on Pacific Coast Highway as well as widening. Who would pay for such improvements and how would they be phased with park development? Also, the development of Sand Canyon and Pelican Hill Roads should provide additional access to the park. Shouldn't these roads be constructed prior to any further improvements on Pacific Coast Highway.

- E-116 27) It appears that a total of 670 parking spaces is to be added to the existing total of 900 spaces. Is this correct? The cumulative and secondary impacts on adjacent communities is not discussed. The number of parking spaces on Coast Highway to be removed is not discussed.
- E-117 28) Does the number of vehicle trips generated, shown on Table 2, include those who park on Pacific Coast Highway?
- E-118 29) There is no discussion of the capacity of Pacific Coast Highway in adjacent communities.
- E-119 30) Mitigation measure for transportation should include needed signals, highway widening and the construction of Pelican Hill and Sand Canyon Roads.
- E-120 31) The discussion of alternatives to the proposed project is inadequate in the following areas:
- a) There is no documentation for the statements made in the Increased Intensity of Development Section.
 - b) The statement that the decreased intensity of development alternative would not allow maximum public access appears to be inconsistent since the proposed project limits public access.
 - c) The alternative for camping on the coastal shelf states that the LCP for the area calls for small-scale development oriented to day-use visitors, yet the proposed project calls for little additional facilities and the elimination of some existing facilities. This does not appear to meet the needs of either the day-use visitor or the overnight visitor.
- E-121 32) The discussion of growth-inducing impacts of the proposed project does not address the impacts on the adjacent communities.
- E-122 33) There is no discussion of secondary or cumulative impacts.

COMMENTS FROM JUANE0 BAND OF MISSION INDIANS

F-1.

There are not enough protective measures for archeological sites.

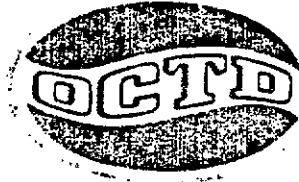
F-2.

The Department should conduct another cultural resource survey of the unit. Any Native American artifacts found should be returned to the Juaneo Band of Mission Indians.

F-3.

All human burial remains found within the unit should be returned to the Juaneo Band of Mission Indians for ceremonial reburials.

Received December 23, 1981 from Gary Spaulding



DA 12-9-81

ORANGE COUNTY TRANSIT DISTRICT

December 7, 1981

Mr. Dave Allen
Project Manager
State of California
Department of Parks and Recreation
P.O. Box 2390
Sacramento, CA 95811

Dear Mr. Allen:

SUBJECT: CRYSTAL COVE STATE PARK GENERAL PLAN/DRAFT EIR

District staff have reviewed this document and appreciate the opportunity to comment on these plans early in the planning process.

In the DEIR (p. 87) transit is identified as a potential mitigation measure to reduce transportation impacts associated with the General Plan. We believe that providing bus parking spaces in the auto lots will encourage use of these recreation facilities by tour groups and other high occupancy vehicles. However, local transit should also be accommodated at these facilities in order to maximize accessibility for patrons using local buses. OCTD currently provides daily service from Long Beach to San Clemente via Pacific Coast Highway in both directions on a 30-minute frequency. There are four existing on-street bus stops within the boundaries of Crystal Cove State Park (see map).

As the park facilities are expanded and improved, OCTD could consider adding five additional stops at locations shown on the attached map to better serve the State Park. In order to safely provide these bus stops, however, we would like to ask you to consider the following:

A-1

- wherever possible, bus turnouts should be provided for on-street bus stops along both sides of Pacific Coast Highway.
- where bus turnouts are not possible, bus stops should be located in right turn lanes into park facilities, or in the acceleration lane at park exits.
- stops should be located as close as possible to recreational facilities and to underpasses through Pacific Coast Highway.
- bus stops should include passenger loading and unloading areas and pedestrian paths.

11222 ACACIA PARKWAY • P.O. BOX 3005 • GARDEN GROVE, CALIFORNIA 92642 • PHONE (714) 971-6200

REC'D DEC 8 1

Mr. Dave Allen
December 7, 1981
Page Two

We hope these recommendations are consistent with the objectives of your department and the California Coastal Act in promoting public access by transit. I am enclosing a copy of the District's Design Guidelines for Bus Facilities to assist you in incorporating local transit in the development of this Park. If I can provide any further information, please contact me or Christine Huard-Spencer at (714) 971-6419.

Sincerely,



Dick Hsu
Environmental Coordinator

DH:VL

cc Nancy Lucast, California Coastal Commission
Tom Miller, Department of Parks and Recreation, Orange Coast
Area



December 21, 1981

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

Dear Mr. Doyle:

The City of Laguna Beach has reviewed the Crystal Cove State Park General Plan, including the Draft Environmental Impact Element. The purpose of this correspondence is to indicate our comments on that document. The comments relate to four areas:

- B-1. On page 47 and page 75 there is a discussion of existing sewer service facilities. There is an indication that the Aliso Water Management Agency is responsible for sewage collection and treatment south of Muddy Canyon. That is not correct. The City of Laguna Beach is responsible for such service. We will be contracting with the Aliso Water Management Agency to treat our sewage when that facility becomes operational in approximately one to two years. The closest sewer trunk line is in Pacific Coast Highway near the Irvine Cove neighborhood. The City's facilities currently serve the existing area of Irvine Cove and will serve the inland expansion of Irvine Cove. There is capacity in that trunk line for additional hookups.
- B-2. On pages 84 and 95 there are statements to the effect that people who will be relocated and park employees will probably move to Laguna Beach, Corona del Mar, or Newport Beach. That is probably unlikely inasmuch as housing prices and rental rates in those three communities are extremely high. It is much more likely that people who are relocated will have to move out of the area entirely and that State employees working at the park may have to commute from inland areas.
- B-3. At several places in the report, such as pages 82, 85, 86, and 21, there are statements which seem to indicate that there will be a program of fuel management using prescribed burning. Before such a program is instituted, it is extremely important that air quality aspects and the safety of surrounding communities be seriously considered. We have serious reservations about the prescribed burning policy for those reasons.

RECEIVED

DEC 24 1981
RPI

B-4.

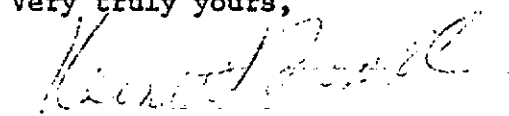
Page 51 of the report indicates that only 14,960 visitors could be accommodated at the park on a peak day. This seems incredibly low. My guess is that the beaches at Laguna Beach and Newport Beach accommodate many times that number of people on a per acre basis. This plan needs to be modified to reflect the reality of a much higher demand for the beach facilities than is projected in the document at this time. Also, there should be a discussion of the impact of the hotel facilities which would be developed on Irvine Company property adjacent to the park and the impact of people staying in those facilities on the park usage. For example, how many people will be staying in those resort facilities, and what percentage of the peak visitor capacity will be used by those facilities? It does not appear that there will be much of an opportunity for people who are not staying in the hotels to use the State park.

B-5.

The City of Laguna Beach is extremely concerned about the additional traffic that will be generated on Coast Highway. The City Council has adopted a policy requesting the State to consider having access to the inland portions of the park come from inland areas rather than using Coast Highway. Additional consideration needs to be given to developing inland access to Morro Canyon so as to reduce the level of traffic congestion on Coast Highway.

We appreciate the opportunity to comment on the draft general plan document.

Very truly yours,



Kenneth Frank
City Manager

cc: Members of City Council
Director of Community Development
Director of Recreation & Social Services

Memorandum

To : (1) Jim Burns, Projects Coordinator
The Resources Agency

(2) Department of Parks and Recreation
P. O. Box 2390
Sacramento, CA 95811

Date : DEC 15 1981

Subject: SCH#81072350: Crystal
Cove State Park General
Plan

Attn: James Doyle


From : Department of Boating and Waterways

Cal Boating has reviewed the Draft Environmental Impact Report for subject project and would like to offer the following comment:

D-1

The Final EIR should address the impact of boating/sailing on the park and indicate whether additional boating regulations and/or waterway markers will be needed.

Thank you for the opportunity to review this document.


MARTY MERCADO
Director



State of California
 Governor's Office
 Native American Heritage
 Commission

December 23, 1981

Commissioners
 Ed Castillo
 Cananea
 Patricia E. Duro
 Lugo
 William J. Franklin
 St. John
 Jay J. Johnson
 Mirach Palute
 Milton M. Marks
 Yank
 Marcel M. May
 Pines
 Ning Inen Taylor
 Palute
 Jane K. Fenn
 Wanda K. Calhoun
 Talbot M. Wilson
 Pt. River

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

Dear Mr. Doyle:

Subject: Crystal Cove State Park General Plan
 SCH 81072350

The Native American Heritage Commission appreciates the opportunity of reviewing the Draft EIR for Crystal Cove General Plan. Overall, the plan appears to have been developed in the best interests of the community at large, and will fill diverse recreational needs.

G-1

At the same time, we would recommend that the Interpretive Element deserves some reconsideration. The structuralist conception of history, i.e., the period concept, tends to overshadow the real flow of change and concentrate attention on major events and figures. The Juaneno history is a case in point. If, today, as you mention, "The Juaneno are actively working toward recognition of their people and heritage," this type of interpretation is at least partially responsible.

G-2

The Juaneno could benefit from at least brief mention of their participation in the Rancho San Joaquin and Irvine Ranch. Both these "periods" were dependent upon a labor force that deserves some mention, and would demonstrate both change and continuity through time. Not only would a "flow" interpretation of history benefit the general public, but it would allow the Juaneno people to actively teach their children a proud cultural heritage at Crystal Cove.

If we can be of further assistance, please contact the staff office.

Sincerely,

Nancy A. Evans

Nancy H. Evans, Ph.D.
 Sacred Lands Study

NHE:js

cc: State Clearinghouse -

State of California, Department of Parks and Recreation
California Coastal Commission
631 Howard Street, 4th floor
San Francisco, California 94105
(415) 543-8555

December 22, 1981

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

Dear Mr. Doyle:

We would like to commend your planning efforts on the Crystal Cove State Park General Plan. There are no major conflicts with the Local Coastal Plan for the Irvine Coast. The development of this park unit is a key factor in the implementation of the Coastal Act policies for this important coastal area.

The efforts of both our agencies to provide coastal access to the public in an expedited, cost-effective manner has been furthered by your plan. On May 5, 1981, the Coastal Commission approved the development of 12 environmental campsites in Crystal Cove. A condition of that permit 100V-81 required the Department of Parks and Recreation to open day-use facilities in the unit prior to, or concurrently with, the campsites. Upon submission of site plans for the campsites and/or the interim facilities and CEQA compliance, we will issue the permit. It is our understanding that these projects are funded this fiscal year although environmental campsites locations are not included in the plan. We are encouraged by this interagency cooperation and would like to see the development occur as soon as possible.

Longer range planning considerations for the unit could be approved by the Commission as a Public Works Plan if the Department so desires. Our basic environmental and Coastal Act issues can be resolved if, as the plan proposes, facilities be concentrated in already developed areas and alternatives to private automobile use be explored.

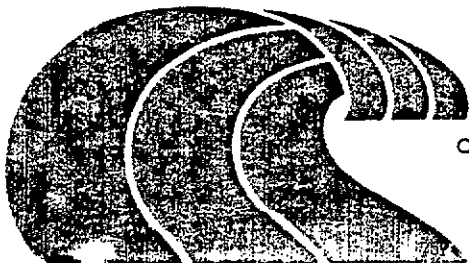
We look forward to the rapid completion of the interim public use facilities and the ultimate development of an important state park. Please let us know if there is anything we can do to expedite this project.

Sincerely,

Bob Lagle

ROBERT B. LAGLE
Special Assistant to the
Executive Director

cc: Pete Dangermond
Ross Henry
Nancy Lucast



RECEIVED

DEC 22 1981

RPI

1-8834

RESPONSE TO COMMENTS

A. ORANGE COUNTY TRANSIT DISTRICT

1. Your suggestions will be considered in future planning.

B. CITY OF LAGUNA BEACH

1. The Final Plan and Final Environmental Impact Element (Report) (FEIR) will reflect the correction.
2. Comment noted.
3. Please refer to pp. 82 and 85 of the Plan.
4. Please refer to pages 27 to 29 of the Resource Element for discussion of guidelines used to determine instantaneous capacity. Comments regarding proposals for development of adjacent lands should be offered in connection with the Irvine Coast Local Coastal Program (LCP), prepared by Orange County Environmental Management Agency (EMA).
5. The plan for Crystal Cove State Park reflects the concept that inland areas of the park should be designated primarily as natural areas, permitting low intensity uses with trail access only. Please refer to the Resource Element for discussion of resource findings and management policy.

C. CALIFORNIA COASTAL COMMISSION

1. Environmental camping is proposed for the 1982/83 fiscal year, the Final Plan and FEIR will reflect the change.

D. DEPARTMENT OF BOATING AND WATERWAYS

1. The impact of boating/sailing will not be significant. Improved boat access points for hand launch are part of the proposed plan. The Department will work with the Department of Boating and Waterways to determine future waterway marking needs. The FEIR will reflect this.

E. CITY OF NEWPORT BEACH

1. The capacity of Crystal Cove State Park, especially the beach, is limited in comparison with large strand beaches such as Huntington Beach and Bolsa Chica Beach. Please see page 8, paragraph 2. The Plan proposes levels of use considered to be in balance with the resource values of the park. Please see page 33, paragraph 3.

E. CITY OF NEWPORT BEACH (continued)

2. Table III, page 90, shows a total of 1,970 parking spaces for the park. Your figure of 1,570 spaces should be corrected. Recommended parking capacity reflects established policy in the Irvine Coast LCP and the DPR policy regarding development in the State Parks (See page 16).
3. The review period for the DEIR was 45 days as mandated by the State EIR Guidelines. Additional review time for the document is not necessary. The Plan and DEIR will be heard by the California State Park and Recreation Commission on Friday, March 12, 1982 at:

City Hall Police Annex Auditorium
23 Civic Center Plaza
Santa Ana, California 92701
Meeting begins 8:00 A.M.
Hearing begins 9:00 A.M.

People wishing to participate in the public hearing and comment on the Plan are invited to do so at that time.

4. a. The following Cumulative Impact Section will be added to the Final Environmental Impact Report. (See attachment)
- b. The following table will be added to the Final EIR to clarify the relationship of existing and proposed facilities. (See attachment).
- c. The following section will be included in the Final EIR, "A description of the Local/Regional Setting is found on page 1 and page 2."
- d. The "State EIR Guidelines" do not require that a copy of the Notice of Preparation be included in the Draft Environmental Impact Report. Information regarding the Notice of Preparation is found on page 69 of the Preliminary Draft General Plan.
5. The Final Plan and FEIR will reflect the change.
6. Please refer to page 1.
7. Please refer to page 37 of the Preliminary Draft General Plan (PDGP).
8. Please refer to page 2 of the PDGP.
9. Please see response E 8.

E. CITY OF NEWPORT BEACH (continued)

10. Use intensity limits in the Historic District have not been determined because the DPR is unable to complete its evaluation of the area due to current legal proceedings.
11. The Table on page ii will be changed to include numbers of people. (See attachment).
12. Yes, the Final Plan will be clarified by replacing "ride-in" with "horse" on page 45.
13. The Final General Plan will be clarified, see pp. 40 and 42.
14. Please refer to pp. i and 69.
15. Please refer to response E-14.
16. Please see responses to comments E-90 through E-122.
17. The State is divided into 9 landscape providences each displaying either a geographic unity or a unity based upon natural features other than geography. More information can be obtained from reading: The Scenic, Scientific, and Educational Values of the Natural Landscape of California, Department of Parks and Recreation, June 1970.
18. Please refer to pp. 75-77 of PDGP.
19. The proposed dedication is a planning consideration and is within the DPR's area of interest, but is not a part of the General Plan for the park.
20. The resources are a significant and important part of the project, and must be included.
21. Attendance information is on file and available for public inspection at 1416 Ninth Street, Sacramento, California 95814.
22. The recreation survey was not a scientific sample. It was the sampling of potential user groups in the local area.
23. Yes, we agree.
24. Please refer to the Allowable Use Intensity Map and page 28 of the General Plan.

E. CITY OF NEWPORT BEACH (continued)

25. Yes, the coastal areas have a slightly different climate than the inland portions of the canyons.
26. Yes, the Irvine Coast littoral cell is dependent upon buff erosion and drainages within the park as a source of sand replenishment. Coastal sand is essential within a closed cell from Newport Harbor to Abalone Point with the main sand movement being an onshore-offshore movement.
27. Not all changes in land use or modifications to the existing landscape result in a negative effect. Increased runoff could produce increased amounts of materials available for beach replenishment. However, increased erosion is not desirable for the onshore portion of the park.
28. Please refer to page 18 of the General Plan.
29. Cliff erosion in the Irvine Coastal Area from Pelican Point to Abalone Point yields an average of about 1,500 cubic yards of sand to the beaches each year. The bluff retreats less than 2 inches a year.
30. Plant communities have not been mapped, so the extent of each is not accurately known. Coastal sage scrub is the most widespread community. Yes. Southern riparian woodland is particularly sensitive to recreational development due to loss of surface litter and herbaceous vegetation, compaction and any other impacts which would accelerate erosion and cause undercutting of large trees.
31. Turkish rugging is found extensively along the bluffs of the park. Many-stemmed dudleya has been found in the bluff area although no specific information is known about its extent in the park. We do not know what its extent may be on undeveloped lands outside the park.
32. The Least Tern migrates along the coast of California and maybe seen in the project area during the migration as adults moving north to breeding area or as adults and fledgelings at the end of the breeding season. The breeding areas south of Crystal Cove are Santa Margarita River and Buena Vista Lagoon, both in San Diego County and Upper Newport Bay and Huntington Beach in Orange County to the north. The park does not contain any critical habitat for this species there are no suitable areas for breeding and foraging. Lagoons or waterways containing small fish are necessary for critical habitat and these are not present at Crystal Cove.

E. CITY OF NEWPORT BEACH (continued)

33. The unit ends at the high tide and although the marine world is an important element of the unit, we can not address all activities around the unit that might affect it. The marine life section is a brief statement of living marine resources and not state and federal policy regarding mineral resources.
34. The definition of urban density used in the Local Coastal Program. Irvine Coastal Planning Unit, was used by this Department. Please refer to the following pages of the LCP IV, 12, 13, 29, 30, and 31.
35. According to the April 1980 Census, two (2) census tracts, with an approximate population of 7,967, are within a one (1) mile radius of Crystal Cove State Park. Twelve (12) census tracts, with an approximate population of 53,453, are within a five (5) mile radius from the State Park. Seventy-seven (77) census tracts are within a ten (10) mile radius of the State Park.

The population within 1, 5, 10, and 20 mile radii of Crystal Cove State Park is 7,967, 53,453, 398,224 and 1,931,570 respectively.
36. The needs are broadly stated in the Resource Policy Section. (See pages 16-28).
37. Please refer to page 17 of the General Plan, the Department does not have any legal authority over lands which are not owned by this Department.
38. No, the reservoirs were used in the past for livestock watering.
39. Please refer to the Allowable Use Intensity Map and Land Use and Facilities Map, and pages 28 and 29 of the General Plan. As stated on page 28, paragraph 2, the materials are available for public inspection and can be seen at 1220 K Street Mall, Sacramento, CA 95811.
40. When this policy is used in conjunction with a prescribed burn program, fire suppression needs are usually reduced.
41. Plant resources policies do not lead in the direction of increased fire hazard. The use of prescribed burns reduces fire hazards.

E. CITY OF NEWPORT BEACH (continued)

42. Please refer to page 85 for information regarding coordination with adjacent jurisdictions.
43. Yes, mosquitos and ground squirrels. The Department will be working with the Orange County Health Department to control these vectors.
44. Management of the marine resources is the responsibility of the Department of Fish and Game. This Department is proposing a complete invertebrate closure within the unit, however, final action is subject to action by the Fish and Game Commission and/or the State Legislature.
45. The State Park and Recreation Commission has adopted general policies regarding offshore and gas leasing (one for Northern California and one for Southern California). However, we are discussing marine resources, not mineral leasing policies or activities. If leasing activities are having a significant adverse impact on other marine resources then the management authority of the State Park System and general protection statements will be used to protect the resources.
46. Please refer to pages 41 and 81 of the General Plan.
47. Please refer to page 29 of the General Plan.
48. Comment noted.
49. Please refer to response E-4 (c).
50. Please refer to page 33, paragraphs 3 and 4.
51. The Marine Department of the City of Newport Beach was contacted regarding visitor attendance and origin data. The visitor attendance at Newport City Beaches in 1980 and 1981 was 10,839,000 and 12,210,700 respectively. The Marine Department did not have any information regarding visitor origin, therefore no comparison of the numbers of regional day-use visitors is possible. Once the State Park is in operation, visitor origin and attendance data can be obtained and a comparison can then be made.
52. Please refer to response A-1. Monetary support would be determined in a later Budget Planning phase.

E. CITY OF NEWPORT BEACH (continued)

53. The plan proposes pedestrian access under Highway 1 at two locations, which the Department believes will be safe and convenient. The Irvine Coast LCP policy regarding location of parking was used as a guide.
54. Please refer to pages 40-43 for discussion on parking.
55. The Irvine Coast LCP policy on minimum development on the coastal terraces was followed. The plan attempts to limit and confine development in order to protect park resources.
56. Yes, we agree.
57. The area will be delineated and use will be regulated according to the policies, rules, regulations, and orders of the State Park and Recreation Commission, and Title 14 of the California Administrative Code.
58. Please see page 51 (Shuttle System).
59. The access proposed in the plan is, in our opinion, appropriate and compatible with the resource values of this area.
60. All proposed parking in the Pelican Point Area is to be day-use.
61. Please refer to Irvine Coast LCP for discussion of Sand Canyon Avenue and pages 43, 53, and 87, paragraphs 1, 2, and 3 of the General Plan.
62. See Land Use and Facilities map.
63. Please see pages 52 and 53.
64. The Final Environmental Impact Report (FEIR) will include the following Mitigation Measure, "Vegetative screening will be used where required to screen areas visible from the highway."
65. Campsite density at San Clemente State Beach is approximately 8.5 sites per acre; at Doheny State Beach approximately 15 sites per acre; at San Onofre State Beach approximately 8.25 sites per acre. Please note that the above units are classified State Beaches; Crystal Cove's classification is State Park. Scope and intensity of use is dependent on the classification of the unit.

E. CITY OF NEWPORT BEACH (continued)

66. The size of the administration facilities will be determined at the development planning phase. See page 69, paragraph 5.
67. The majority of the State Park staff will live outside the park, however, 2-3 mobile home pads will be developed at the operations and administrative area. See page 46.
68. The entrance, or day-use fee currently charged at units in Southern California is \$3.00 per vehicle.
69. Local utility companies indicate that there will be no significant capacity constraints.
70. Concession feasibility studies will be conducted by the Department of Parks and Recreation at a later date. Please see page 49.
71. Please refer to page 48 for a discussion of and the rationale for the snack stand. This building is within the Crystal Cove National Historic District. Please also refer to page 25.
72. Please refer to page 51 for a discussion of the shuttle system.
73. The total day-use parking proposed in the plan is 1,890 spaces which will accommodate approximately 90 percent of the expected instantaneous capacity. The remaining 10 percent are expected to travel to the park via public transit, bicycle, horseback, or on foot.
74. The turnover rate for Crystal Cove State Park was determined by examining similar State Park System units in the region.
75. Please refer to pages 43, 53, and 87 of the plan.
76. The development referred to in this theme is urbanization which involves large excavations for building sites, road grading and paving, removal of the native vegetation, etc.
77. Subtheme IB (page 57) addresses the theme of the lack of urbanization in the park, and will also include a contrast with the development of the communities surrounding it and the reason for such a pattern.

E. CITY OF NEWPORT BEACH (continued)

78. A center of this type is one of the options under consideration for the buildings in the Crystal Cove Historic District. However, until a thorough interior and exterior evaluation of all the buildings can be conducted no recommendations can be made on their adaptive use.
79. Pending the outcome of the evaluation of the building in Crystal Cove, such a facility would be among the potential uses of that area.
80. A location has not been selected for a facility that could include an audio visual program, hence the buildings' size and capabilities are unknown and the type of equipment that could be housed cannot be determined. The Interpretive Element includes proposals and recommendations that are suitable for the park as it is today; an audio visual program is a possibility that will be considered when a facility is located.
81. Interpretive access to Moro Canyon is obtained by the routes outlined in the development plan for equestrian and hiking trails.
82. The coastal terrace has been designated as a day-use only area following extensive public meetings, public questionnaires, and research of the carrying capacity of the land. The results of these investigations showed that the terrace was most suitable for the lower impact uses that do not involve overnight use and that the public polled agreed with the designation. This decision is further explained in the Resource Element and the Land Use and Facilities Element of the General Plan.
83. Yes, many persons will go to the beach for sunbathing and swimming. The interpretive facilities located in the day use areas will be seen by visitors as they walk to the beaches, by the picnickers, and by those persons passing through the area who wish to walk out onto the bluffs to see the view. This area receives a great deal of school group use, which is expected to increase when the park facilities are made available, and the interpretive facilities will be valuable to their understanding of the area.

E. CITY OF NEWPORT BEACH (continued)

84. The inland areas contain sensitive erosion and vegetation areas. Additional trails and roadways are not planned for the area because of these restrictions, and for the same reasons additional interpretive development is not proposed. Further explanation of the use restrictions can be found in the Resources Element and the Land Use and Facilities Element.
85. As proposed on page 62, the boat tours are an option that should be considered for the interpretation of the marine preserve. If funding becomes available in the future for boat tours, the most likely departure points would be Crystal Cove and Moro Cove. Both sites would require further study to determine their suitability and whether tours should be operated by park staff or a concessionaire.
86. Environmental Living Programs (ELPs) are usually structured for school children in the fifth and sixth grades. The children learn about the lifestyle of the people who lived in a particular area, what they ate, where they came from, what types of homes they had, the crafts they engaged in, etc., and then visit the Park System unit for an overnight stay. While they are there, they: cook on outdoor fires; make candles; bake bread; grind corn; or whatever activities the people they are portraying would have engaged in during a normal day; participate in nature activities; and sleep overnight at the site in the buildings the historic residents used (if they are available), or sleep on the ground in sleeping bags. The purpose of an ELP is to help the children understand what life was like in the past and the problems those people had to deal with.
87. The City of Laguna Beach lifeguards who work the beach area of Crystal Cove State Park estimate the visitor attendance for June 6, 1981 to September 12, 1981 to be 100,000 (approximately 1,200 persons/day). More detailed information on rescues, etc. is available at 1220 K Street Mall, Sacramento, CA 95814. For the number of parking spaces, see page 90 of the General Plan.
88. We disagree. Detailed discussions of this kind are inappropriate at the General Plan level and are normally determined during the budget planning phase. The General Plan should provide broad guidelines only.

E. CITY OF NEWPORT BEACH (continued)

89. Basic services are determined on a unit-by-unit basis. depending upon expected level of use and development. Comparison of State Park System units of different classifications is inappropriate.
90. Please refer to pages 1 and 69 of the General Plan.
91. Please see page 52 of the General Plan.
92. All of the elements required by Section 150143 of the "State EIR Guidelines" are now included. A Local/Regional Setting and Cumulative Impact Section have been added and the Table of Contents is clarified and will be included in the Final General Plan and Final Environmental Impact Element. (See Attachment)
93. Please refer to response E-4 (d).
94. The Final General Plan and Final Environmental Impact Element will be changed to reflect this.
95. No comment necessary.
96. See response E-35 for population information.
97. For information regarding Cumulative Impacts, please refer to response E-4 (a).
98. It is anticipated that the erosion and runoff rates will not significantly exceed the natural rate, which will assure sand replenishment for the Irvine Coast littoral cell.
99. The mitigation measures on page 79 are standard accepted measures to handle surface water runoff. If it is determined that additional measures are necessary, they will be utilized.
100. Please refer to page 80 of the General Plan and the response to comment E-99. Only portions of the parking facilities are expected to be paved. Detailed designs will be done in later planning phases.
101. The existing format is adequate, the numbering of the mitigation measures would be redundant.
102. The relationship between the proposed project and mitigation measures is quite clear.
103. Please refer to response B-3 for information on the controlled burn program.

E. CITY OF NEWPORT BEACH (continued)

104. No mitigation measures are necessary. Visitor origin and distance traveled by the State Park visitors is beyond our control.
105. The impacts on air quality are not considered significant. The mitigation measures proposed will reduce the impacts to an even lower level. Regulation IV, Rules 401, 402, 403, and 404 of the South Coast Air Quality Management Board will be followed.
106. The following statement will be included in the Final Plan and Final Environmental Impact Element, "Any increase in noise due to park visitor traffic is not considered significant." This will be added to page 83.
107. The Final Environmental Impact Element will reflect the following addition, "Construction will be limited to weekdays and daylight hours." The Effects of Noise Section will be changed accordingly.
108. Please refer to response E-4 (a).
109. This Department has no control as to where people will relocate or where park personnel living outside of the State Park will live.
110. The Department of General Services should be contacted regarding relocation. They can be reached at:

Department of General Services
Real Estate Services Division
650 Howe Avenue
Sacramento, CA 95825
(916) 920-6262

111. Please refer to response B-3.
112. As suggested, the following section on Police, Fire and Paramedic Services will be added to the Final Environmental Impact Element under Public Services.

"The City of Newport Beach has an agreement with Orange County to provide paramedic and fire services to the northern portion of Crystal Cove State Park down to Crystal Cove. Response time for fire units is four (4) min. and paramedic service response time is seven (7) minutes. Response time from Orange County's Fire Station 11 (Emerald Bay) is 3-4 minutes, and paramedic response time (Paramedic no. 6 (South Laguna) is 5-6 minutes."

E. CITY OF NEWPORT BEACH (continued)

113. Night-time use at Southern California beaches involves an element of use that requires extensive night patrol activity, resulting in excessive enforcement costs. The present restriction to day use only will continue until economic and operational factors have been evaluated.

114. Please refer to response E-112.

115. Currently there are no plans by the Department of Transportation (CALTRANS) to widen the Pacific Coast Highway (PCH) through Crystal Cove State Park. There is no tie between specific phases of park development the widening of the PCH. Signalizing the intersections would most likely occur before widening PCH.

It is anticipated that the construction of Sand Canyon and Pelican Hill Roads will occur prior to any widening of the PCH by CALTRANS. It is possible that, with construction of Sand Canyon and Pelican Hill Roads, widening of PCH by CALTRANS would not be necessary.

116. Please refer to response E-2; the timing and number of parking spaces to be removed is not known at this time. The removal of parking along Pacific Coast Highway requires approval and action from Orange County. There is no current proposal from Orange County to remove parking from the Pacific Coast Highway in the vicinity of Crystal Cove State Park.

117. The following explanation will be added to Table 2, "Turnover Rate of 2=4x880 = 3,620 vehicle trips/day.

118. The traffic on the Pacific Coast Highway through the cities of Newport Beach and Laguna Beach generally does experience considerable congestion during hours of peak flows. During the winter peak flows the level of service is at "D". However, during summer peak flows the level of service drops to level "E". It is at this level that the highway is at its capacity.

119. Please refer to page 87 of the General Plan.

E. CITY OF NEWPORT BEACH (continued)

120. a) The proposed scope of development was selected in accordance with the allowable use intensity analysis on pages 28 and 29, which provided the guidelines for determining the type, location, and intensity of development.

The expansion of facilities (increased intensity of development) beyond the proposed scope, would require the modification of additional open space with resulting increased impacts to State Park System resources. Any substantial increase in development intensity would exceed the "Allowable Use Intensity" and is, therefore, unacceptable to this Department.

- b) For resource protection, health and safety reasons it is not wise nor practical to have unlimited access to any facility whether it be operated by a city, county, regional or state entity. The proposed project does limit public access, as it is supposed to. The proposed level of development is consistent with the allowable use intensity as required by Section 5019.5 of the Public Resources Code. A decreased intensity of development would limit even further the number of persons to be accommodated by the State Park.

The term " maximum public access " refers to the maximum number of people permitted within the Allowable Use Intensity as discussed on pages 27 and 28 of the Preliminary Draft General Plan.

- c) The purpose of the State Park is to meet some of the needs. It is not the purpose of the State Park to meet all of the recreational demand. Please refer to page 33 of the General Plan for a discussion of the recreational needs of the region.

121. Please refer to response E-4 (a).

122. Please refer to the previous response E-121.

F. JUANENO BAND OF MISSION INDIANS

1. The Department, through its Resource Management Directives, Public Resources Code and Policy, Rules, Regulations and Orders of the State Park and Recreation Commission and the Department of Parks and Recreation will protect the archeological sites within Crystal Cove State Park. The policies outlined in the General Plan, pages 23-26 offer detailed measures to protect the archeological resources. Park rangers patrolling the park will protect the archeological sites as well as the other resources of the unit. Individuals apprehended disturbing archeological sites are subject to prosecution.
2. As has been the practice in the past, all artifacts that are discovered on State Park System lands will continue to be housed in State facilities for security reasons.

A resurvey of Crystal Cove State Park is not necessary. Site specific surveys and mitigation measures will be conducted in conjunction with specific development projects.

3. The Department's policy on handling human remains is currently being revised. The Department's policy is being revised in consultation with the Native American Heritage Commission and other interested groups.

G. NATIVE AMERICAN HERITAGE COMMISSION

1. This Department has long been committed to the flow of history/change concept in interpretation of California history and will use this concept at Crystal Cove.
2. Since the Juanenos were part of the labor force at the ranches, they will be interpreted along with the other workers in the story of life on the ranches. As the research and planning of the interpretation at Crystal Cove State Park continues, the Native American Heritage Commission and the local representatives of the Juaneno will be kept informed and consulted.

ATTACHMENTS

CUMULATIVE IMPACTS

I. RELATED PAST, PRESENT, AND FUTURE PROJECTS

As of this writing the only major development proposed within the Irvine Coast Planning Unit is the Irvine Company Project (ICP). The proposed ICP will be located on land adjacent to Crystal Cove State Park (CCSP). The ICP can be divided into four (4) major areas (1) residential, (2) tourist/recreational/commercial (TRC), (3) open space/park, and (4) road development.

The ICP will include approximately 9,400 acres and at build out will contain 2,667 dwelling units with an estimated population of 8,800. Four (4) TRC areas will be developed on 160 acres and will contain 2,000 hotel units and 335,000 square feet of speciality retail and commercial property. The open space area will be Los Trancos Canyon Park which will contain 560 acres and be managed by a homeowners association. The road development will contain residential streets and the construction of Pelican Hill and Sand Canyon roads.

Some environmental documentation has been prepared as part of the Irvine Coast Local Coastal Plan. Additional environmental assessments will have to be prepared for all aspects of the ICP.

II. SUMMARY OF EXPECTED ENVIRONMENTAL EFFECTS

The following potentially significant cumulative impacts are expected to be produced:

1. Circulation
2. Erosion
3. Surface Water Runoff
4. Esthetics
5. Impacts on Local Communities
 - a. Physical
 - b. Economic
6. Water Quality

Additional information on the Irvine Company Project can be obtained from the Orange County Environmental Management Agency, located at 811 North Broadway, Santa Ana, CA 92702.

III. ANALYSIS OF THE CUMULATIVE IMPACTS OF THE RELEVANT PROJECTS

It is anticipated that the two projects, ICP and CCSP, will impact almost every aspect of the environment to some degree. The impacts

associated with the two projects are not necessarily all negative, and not all of the impacts will be severe enough to be considered significant. Some of the impacts that have the potential to be significant can, however, through proper mitigation be reduced to levels of non-significance.

Due to the difference in magnitude between the ICP and CCSP; the ICP has the greatest potential of producing significant impacts on the environment. For example, the entire area of CCSP contains 2,791 acres with less than 75 acres proposed for development, as opposed to the ICP which proposes 3,570 acres of residential development, 160 acres of TRC and 5,640 acres in open space, for a total of 9,370 acres. The ICP will generate approximately 57,764 vehicle trips per day, whereas CCSP will generate approximately 11,500 vehicle trips a day.

Whether or not the cumulative impacts of both projects are significant is dependent upon the ability of the ICP to identify the significant impacts and mitigate them to acceptable levels.

The Environmental Impact Report for CCSP has identified significant impacts and mitigation measures that will be used to reduce those impacts to nonsignificant levels.

When the environmental assessments are prepared for the different aspects of the ICP, the significant impacts will be identified and mitigation measures will be proposed to lessen the impacts to non-significant levels, or a statement(s) of overriding consideration may be prepared. It is the responsibility of the Lead Agency (Orange County) to assure the adequacy of the impact identification and mitigation measures, and lastly to certify the entire environmental assessment as adequate.

FACILITIES COMPARISON

<u>Facility</u>	<u>Existing 1981</u>	<u>Interim Dev.</u>	<u>1999</u>
Parking Spaces	1,415	1,410	1,970
Trails (mi.)	0	2.5	21
Dwelling Units	340	340	2-3**
Underwater Park (ac.)	0	0	1,083 ac.
Picnic Sites	0	15	66
Group Day-Use Areas	0	0	2
Ride/hike (Campsites)	0	0	30
Developed (Campsites)	0	0	60

** 2-3 Employee trailer pads are planned for development

Response to comment E-11.

Picnic/Day-Use Areas

Pelican Point/Crystal Cove	3 areas	-	360	People
Crystal Cove Historic District	1 area		40	People
Pelican Point Group Area			30	People
El Moro Area	1 area		168	People
Moro Canyon Group Area			30	People
Moro Cove Area	1 area		120	People

ENVIRONMENTAL IMPACT ELEMENT.....	69
Description of the Project.....	70
Description of the Environmental Setting.....	70
Local/Regional Setting.....	70
Environmental Impacts of the Proposed Project.....	78
Significant Environmental Effects and Mitigation Measures Proposed to Eliminate or Minimize Effects....	78
Unavoidable Environmental Effects.....	93
Alternatives to the Proposed Project.....	93
The Relationship Between Local Short-Term Use of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity.....	94
Irreversible Environmental Changes and Irretrievable Commitments of Resources Should the Proposed Project Be Implemented.....	94
Growth Inducing Impact of the Proposed Project.....	95
Cumulative Impacts.....	95
Persons/Agencies Consulted in the Preparation of the Environmental Report.....	96

PERSONS AND AGENCIES CONSULTED DURING PREPARATION OF THE ENVIRONMENTAL
IMPACT REPORT

Allan, David, Landscape Architect, Department of Parks and Recreation, telephone conversation. July-August 1981.

Amos, H. J., California Department of Transportation, personal conversation. August 1981.

Balvant, William, California Department of Finance, person conversation. January 1982.

Boyer, Charles, California Department of Transportation, personal conversation. January 1982.

Brown, Robert, California Department of Transportation, personal conversation. August 1981.

Cermack, Richard, Manager, Advanced Planning, Irvine Company, telephone conversation. January 1982.

Cola, Sprin, Orange County Fire Department. Telephone conversation. January 1982.

Dietrich, William, Chief, Subdivision Section, Orange County, telephone conversation. January 1982.

Freeman, Gibson, California Department of Transportation, Sacramento, personal conversation. August-September 1981.

Frickie, Dan, Environmental Management Agency, Orange County, telephone conversation.

Gothard, Nancy, City of Newport Beach, Marine Department. Telephone conversation. January 1982.

Green, Robert, Orange County Planning Commission, telephone conversation. July 1981.

Hood, Joe, State Park Historican, California Department of Parks and Recreation, personal conversation. August-September 1981.

Jones, Donald, Newport Beach Fire Department, telephone conversation. January 1982.

Kelly, Randolph, State Park Marine Biologist, California Department of Parks and Recreation, personal conversation. September 1981.

Kurmod, Richard, California Department of Transportation, District 7, telephone conversation. August 1981.

Lewinger, Keith, Irvine Coast Water District, telephone conversation. July 1981.

Lutz, Ronald, City of Laguna Beach, Recreation Department, telephone conversation. January 1982.

Moscowitz, Richard, Deputy Sheriff, Orange County Sheriff's Department, personal conversation. August 1981.

Orange County Fire Department, telephone conversation. August 1981.

Orange County Sheriff's Department, Captain Ferlanto, telephone conversation. January 1982.

Riddell, Francis, Archeologist, California Department of Parks and Recreation, personal conversation. September 1981.

Rooney, Frederick, Traffic Engineer, California Department of Transportation, personal conversation. September 1981.

Schaub, David, State Park Resource Ecologist, California Department of Parks and Recreation, personal conversation. September 1981.

Smith, Larry, Land Agent, California Department of General Services, telephone conversation. November 1981.

Tang, Allan, Landscape Architect, California Department of Parks and Recreation, personal conversation. July-September 1981.

Thompson, Bob, California Department of Transportation, personal conversation. January 1982.

Trumbly, James, State Park Resource Ecologist, California Department of Parks and Recreation, personal conversation. September 1981.

COMMENTS RECEIVED AFTER
END OF REVIEW PERIOD

December 22, 1981

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

RE: Crystal Cove E.I.R.

Attn: Mike Doyle

Gentlemen:

Acquiring the lands for Crystal Cove State Park and your desire to put in place an excellent public park is appreciated. The following comments come from using this area and reviewing E.I.R.'s for the City of Newport Beach through my appointment to C.E.Q.A.C. (Citizens Environmental Quality Advisory Committee).

I hope these reflections will be read with a positive long range view.

The reflections and comments are as follows:

HYDROLOGY:

Water quality discharge from Non-Point sources:

Page 5, Paragraph 7 (e) (d) These objectives should be supported with information from: Publication areas of special biological significance dated July 1976, California State Water Resource Control Board. Resolution #74-28; and September 24, 1970 Section XI Miscellaneous (Rev. 7-9/1/72).

Regarding - discharge of waste from non-point source, including, but not limited to, storm water runoff, silt, and urban runoff, etc.....

Page 9, Paragraph 1 talks of eight coastal water sheds which are located in the park.

What are the possible potential hazards to park and beach users from human chemical pollutants. At present the Irvine Company and the County's E.I.R. and developmental plans call out funneling waste water to natural canyons through the park on to the beaches and to the ocean. What will the accumulative buildup be on coastal water sheds, beach sand and ocean?

Page 17, Paragraph 4 Zone of Primary Interest:

Add Los Trancos Canyon drainage from Pelican Hill hotels, homes and Pelican Hill road. This is the area of major development concerns for the park.

Page 19, Paragraph 5. Again no discussion given to up-stream watershed, increases due to hotels, gas stations, restaurants, housing, and major road surface areas, which will drain into the park with Irvine development plans.

Page 22, Paragraph 6. This is a good point. The State should require this be added to Irvine Coast Development Implementation or ask the Coastal Commission to put in as part of implementation zoning which is underway now. Do not have details of what County and Irvine Company are doing.

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DEC 29 1981

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1-8861

Page 59, Paragraph 3. Moro Canyon is a yearly flow - it does not stop in the summer. Talked with trailer owners who live there.

Page 12, Paragraph 4. Add osprey eagle which roosts at Crystal Cove on telephone poles at west end of the Cove.

Page 27, Paragraph 1. Removal of unnatural features - power lines and main K.V.

A detailed discussion of when the State started negotiations to buy this Canyon and the inspection by the State will show that the power poles were put in after these dates. This is a fraud to the park concept by the Irvine Company. They should pay for the pole removal. This fact is known to early participants. Part of the power carried by the poles is designed for their development projects. Your Dave Allan has more details on this.

Page 38, Paragraph 8. Equestrian/Hiking Trails - a general discussion of compatibility of horse use with hiking and camping in the same areas is not evaluated. What of danger to hikers if a horse throws it's rider and runs wild down a hiking and riding trail. How much plant damage due to horses grazing as they walk along trails?

Is Elmore Canyon to become the horse commercial riding area - chewed up and not safe for children to walk in alone?

Page 31, Paragraph 4. Why is \$500,000 plus dollars being spent to relocate a horse facility which did not have a long term lease? What are their financial damages?

Page 41, Paragraph 3. Who are the local public officials lobbying for the State to pay for the moving of private horses? If this is a State owned equestrian facility as stated, who will own it when the State pays to move this equestrian facility?

Page 45, Paragraph 2. Two of the three hike-in camp sites for horse use also. What are the provisions for feeding, clean-up, flies, and general scenic degradation. People on foot and horse-back riders do not mix in such a small trail area.

Page 32, Paragraph 4. Concessions for public use, private profit.

I find no guidelines as to what can be allowed. Electric games, McDonalds, horse facility if a need is shown. Is this to be a passive park or an amusement park?

Page 75, Paragraph 7, and Page 73, Paragraph 2. Traffic volume of Pacific Coast Highway in 1995 of 52,000 ADT is guesswork at best. This is based on the assumption San Joaquin Hills Transportation Corridor is in operation. To date, it is not in the State Highway System planning or funded.

Please refer to appendix A. My letter of October 27, 1981 to Governor Brown regarding decisions made falsely on a paper road. The State Park and Irvine Company developments should be held up until this major traffic corridor is made real. What are traffic and noise projections without a corridor?

With the two planned developments, Park and Irvine Co. project, and no corridor, Laguna and Corona Del Mar will be hostages to paid lobbyists and their persuasive efforts to date.

Page 62, Paragraph 3. Adaptive uses for cottages, other than continuation of their present use as residences. We were first told cottages and trailers at Elmore had 20 years, with vacating at that time and no cost to the State. Less fees would be raised and the funds collected used in developing Crystal Cove State Park.

Regarding relocation fees and possible litigation costs. Where is the decision on potential costs to the State for forcing out the cottage users? Do you plan to provide a new facility for them as you do for the equestrian users?

Page 91, Paragraph 8. Leave status quo for next 20 years solves this for now. This should be stated.

Page 84, Paragraph 7. A list of businesses subject to State relocation or buy-out should be given. Cost for part of horse relocation given but does not read complete.

Page 87, Paragraph 2. Sand Canyon for traffic mitigation - explain this. What is Park mitigation for projected damages?

Page 67, Paragraph 3. Future operation.

How many patrol trips along beach per day on sand? What do you think is this effect on grunion eggs, beach sea shells, visual quality and enjoyment of the beach? At present, it is like the Korean DMZ with shot guns and man hunters. A poor passive park so far.

Page 17, Paragraph 7. These reservoirs do have value wild life, migrating birds, and close water source for wildfire suppression and visual pleasure of wind on the water.

Page 74, Paragraph 4. States Newport Beach to grow due to Irvine hotels and homes development. Annexation requires L.A.F.C.O. approval of Crystal Cove voters and Newport has a policy of city-wide vote first. What is background to this fact?

Again, these statements are to help draw out more facts to this draft E.I.R. and to give us all more information to see that we do develop a park of high quality for all times.

Sincerely,



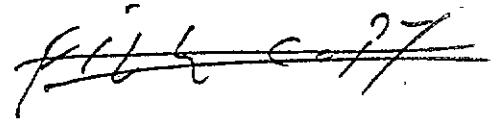
Ronald Kennedy
550 Hazel Drive
Corona Del Mar, California, 92625
(714) 640-7177

October 27, 1981

APPENDIX A

Ronald Kennedy
550 Hazel Drive
Corona del Mar, California, 92625

Governor Edmund G. Brown, Jr.
State Capitol
Sacramento, California, 95814



Dear Governor Brown:

Who are the public advocates to insure the mandate, by vote, of the electorate in regards to the Coastal Act?

It surely can not be the Coastal Commission's Commissioners who are politically appointed, not environmentally appointed.

As I read the Coastal Act, it is an environmental protection document - not a political action document for broad brush interpretation and self destruction.

The Irvine Coast Local Coastal Plan (L.C.P.), conditionally certified on July 20, 1981 by the Commissioners, is a subject of examination and future judication. Their own commission staff recomen ded denial on five points, they understood the environmental short falls. But, the politically appointed commissioners failed to understand. A few of the statements made prior to voting on the open microphone showed their lack of being correctly informed as to facts, which was the concern of their own staff when they recommended denial.

On attending the annual meeting of the Friends of the Irvine Coast on Sunday, October 25, 1981, I heard a presentation made by Al Hollinden from the University of California at Irvine Institute of Transportation Studies. A new fact was revealed to me during the question and answer period which ties back into the failure of the Irvine Coasts E.I.R. The San Joaquin Hills Transportation Corridor is not a part of the State Highway System.

On examining the Irvine Coast's L.C.P. dated May 6, 1981, page IV-30, it talks of road phasing with development as found in Appendix C. On reading Appendix C, found in the Irvine Coast Local Coastal Plan Circulation Study, we are told of seven computer runs of traffic assignments for the Irvine Coast Local Coastal Plan.

I feel these seven alternatives are misleading and incorrect. In all seven alternatives, the San Joaquin Hills Transportation Corridor is shown and is outside the Coastal Boundary. However, the computer runs show this quarter carrying approximately 90,000 to 100,000 average daily trips in a north to southeast direction.

This traffic load should have been computed using the San Diego Freeway and Pacific Coast Highway. Pacific Coast Highway, being in the Coastal Zone, should show the traffic impacts on merchants and residential communities in both Newport Beach (Corona del Mar) and Laguna Beach. When the San Joaquin Hills Transportation Corridor is funded, then computer models showing it's traffic carrying capacity would be legitimate.

Additionally, a California Coastal Commission document dated October 8, 1981 entitled, "To: Commissioners and Interested Persons, Subject: Recommendations and Findings: Irvine Coast L.C.P. Segment Land Use Plan, County of Orange (For the Commission meeting of October 20-23, 1981) (Adoption of Findings)" further shows two letters: (1) California Department of Transportation Planning letter dated January 2, 1981 to M. Fischer from Ann Barkley and, (2) Memorandum to David Allan, California Department of Parks and Recreation from the Department of Transportation - Division of Transportation Planning, Gibson W. Fairman, dated April 2, 1981, File #2.3.1.

Both letters show the San Joaquin Hills Transportation Corridor carrying thru traffic. How can this paper quarter, not part of the State Highway System, or funded, be used in decision making?

High rise convention hotels and office buildings (10 stories high) along this pristine coast line, between two residential communities, is a joke as to the Coastal Commission's balancing act.

The State of California spent 30 million plus dollars to buy the Irvine Coast from the Irvine Company as the first move in the creation of a National Urban Park, which now is being legislated into the Irvine Development's green belt, complete with Irvine Company beach parking structures.

This is a poor plan in many other ways and damaging to the State Park System.

Sincerely,



Ronald Kennedy

- CC: California Coastal Commission
Michael L. Fisher, Executive Director
- CC: Huey Johnson, Secretary of Resources
- CC: Senator Alan Cranston
- CC: Senator S. I. Hayakawa
- CC: Marion Bergeson
- CC: Orange County Board of Supervisors
- CC: Al Hollinden, UCI Institute of Transportation

Desomount Club

Director Office
5009
12-30-1981

Nature Study

Conservation

Appreciation

1260 Cliff Dr., Laguna Beach, Ca. 92651
December 30, 1981

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West Covina, CA 91791

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Pasadena, CA 91105

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Director Peter Dangermond, Jr.
California State Parks
P.O. Box 2390
Sacramento, CA. 95811

SUBJECT

Crystal Cove State Park

Dear Director Dangermond :

The plans which your department has made for promptly meeting the recreational needs of the public are to be highly commended. Your provision for public participation in the planning process is resulting in a highly desirable people-oriented park.

The beach ramps, the pedestrian and bicycle trails, the horse and hiking trails along Moro Ridge, the vista points provided, the showers and fish cleaning stations, the use of solar energy, the marine preserve, the family and group picnic sites, the relocation of the stables, the provision for interpretative facilities all point to a recognition and use of the variety of recreational resources found in Crystal Cove State Park. Provision for natural seacoast landscaping has not been mentioned in the publicized information, but I presume has been taken under consideration.

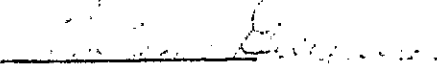
One feature in the planned development I question : the overemphasis on parking; the failure to take into consideration the existing bus service that is available. Eight buses an hour pass any given point in the park. It is highly probably that, should there be a demand, more buses could be added to the schedule. The traffic on our Pacific Coast Highway is already excessive. The parking lot provisions will only augment the problem.

The erection of simple, attractive bus loading stations (perhaps of cement blocks) which affords seats protected from sun, rain or wind; stations manned by seasonal employees, with minimum landscaping, rest rooms, open air showers, display boards calling attention to some of the natural resources of the park or safety precautions needed would make access to the park via the OCTD very attractive. Lockers provided here, or at adjoining rest rooms nearer the beach, could serve temporary storage demands for the vistors luggage.

Bus access to the park can provide economical transportation for those who cannot afford to drive, who no longer do drive, or for those who do not have a car. It can effect a real saving of fossil fuels which are becoming more scarce, more expensive.

Thank you for taking these factors under consideration.

Respectfully yours,


Evelyn Gayman
Conservation Chairman

SUPERVISOR, FIFTH DISTRICT

THOMAS F. RILEY

ORANGE COUNTY BOARD OF SUPERVISORS

ORANGE COUNTY HALL OF ADMINISTRATION

10 CIVIC CENTER PLAZA, P. O. BOX 687, SANTA ANA, CALIFORNIA 92702

PHONE: 834-3550 (AREA CODE 714)



January 11, 1982

Mr. James M. Doyle, Supervisor
Environmental Review Section
California Department of Parks
and Recreation
Post Office Box 2390
Sacramento, California 95811

Dear Mr. Doyle:

Thank you for the opportunity to review the preliminary draft of the Crystal Cove State Park General Plan. As the park is a very major focus of attention within my district, I appreciate the courtesy of advance review and a chance to comment.

In general, the plan looks exciting and provides a good use of the land, preserving the natural beauty, which is important, but encouraging public access, which is mandatory, in my view. We can agree that the park will be of little value unless the public is invited to use the land through an extensive trail system.

I note, however, that the plan does not discuss alternate locations for equestrian centers, in light of your determination to remove the present facility from the coastal terrace. I am very well aware, as I know your own department is, that a substantial segment of the coastal population is interested in relocating the present equestrian center somewhere else along the coast. We are well along with an update to our master plan of riding and hiking trails, and the coastal property is well connected with trails that will take riders throughout the county.

We propose several other locations for equestrian facilities, and together with a coastal site, we believe we will develop a complete system that can stand the test of financial viability. Personally, I think the relocation site might be somewhat smaller than the present coastal site. Nevertheless,

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JAN 15 1982

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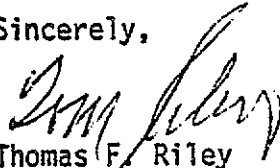
2-211

Mr. James M. Doyle
January 11, 1982
Page Two

I believe your draft document is incomplete unless it discusses the need for an equestrian facility, and locates a potential site within the inland sector of the state park.

Thank you for the opportunity to comment on the draft preliminary plan.

Sincerely,

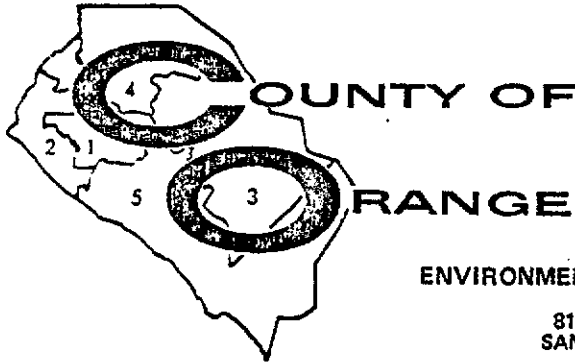


Thomas F. Riley
Supervisor, Fifth District

TFR:pht

cc: Mr. Murray Storm
Ms. Martha Wetzel
Ms. Rebecca Nelson
Mr. Gale Harmon

MURRAY STORM
DIRECTOR



MAILING ADDRESS:
P.O. BOX 4048
SANTA ANA, CA 92702

ENVIRONMENTAL MANAGEMENT AGENCY

811 NORTH BROADWAY
SANTA ANA, CALIFORNIA
(714) 834-2306

FILE GSRLR027

December 29, 1981

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

SUBJECT: General Plan, Crystal Cove State Park

Dear Mr. Doyle:

The Environmental Management Agency has reviewed the subject document and has the following comments to relate:

Air Quality

- o The air quality section should address vehicular emissions, specifically it should compare emissions without the project to emissions with the project.

Circulation

- o A problem with pedestrian safety may be created as a result of the park. The report should address this possibility.

In addition, the comments contained in the letter dated September 2, 1981 remain appropriate for this document. A copy of the letter is enclosed.

Thank you for the opportunity to respond to this environmental document. Please forward a copy of the final document when it becomes available.

Very truly yours,

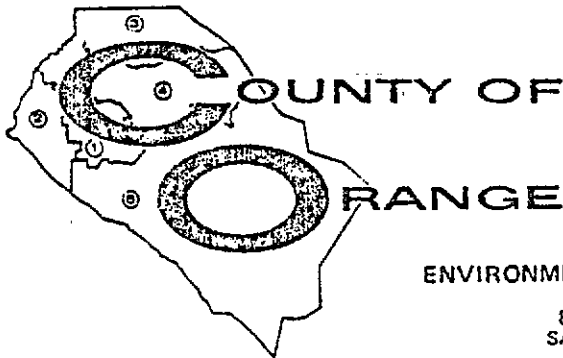
Kenneth E. Smith, Manager
Environmental Analysis Division

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DEC 31 1981

RPI
PF:crn

1-8897

MURRAY STORM
DIRECTOR



MAILING ADDRESS
P.O. BOX 4048
SANTA ANA, CA 92702

ENVIRONMENTAL MANAGEMENT AGENCY

811 NORTH BROADWAY
SANTA ANA, CALIFORNIA
(714) 834 2306

FILE GSRI027

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

Subject: Preliminary General Plan, Crystal Cove State Park

Dear Mr. Doyle:

The Environmental Management Agency has reviewed the subject document and has the following comments to relate:

1. The County is currently processing an EIR for a dedication and development (DDA) for the Irvine coastal property of which this proposal is a part. Close coordination between State and County offices and the Irvine Company is a must to insure internal consistency between the various documents. The county's EIR contact person is Dan Fricke who can be reached at 714-834-3686.
2. The County is also processing area plans for residential and commercial developments across Pacific Coast Highway from and adjacent to the proposed Pelican Point use area. Also being evaluated is an EIR for the alignment and construction of Pelican Hill Road. The interface between these developments and their effect on local and regional circulation should be discussed. The County's EIR contact person for Pelican Hill Road is Dan Fricke who can be reached at 714-834-3686.
3. In regards to the issue of users of the state park, the EIR should address the question of how many "new" park users are expected as opposed to those currently using the unimproved beach and parking facilities.
4. Trail linkage - that park trails will provide continuous linkage with existing and proposed county and State Parks Foundation trails.
5. Visual impact - that the visual impact of cars and structures will be minimized to the greatest extent possible, utilizing berming and landscaping as necessary.
6. Landforms - that landforms will be disturbed only when unavoidably necessary and re-contoured and landscaped in a naturalistic fashion.

Mr. James M. Doyle, Supervisor

Page 2

7. Marine Terrace - that all caution will be used in use of the marine terrace and that accessways will be designed to encourage their use by the public to minimize damage to bluff faces.
8. Wildlife and marine life - that trail, camping and picnic facilities will be designed to minimize impact on wildlife and that protection will be given to any marine life accessible to the public.
9. Restoration and enhancement - that efforts will be made to restore lands badly damaged by previous domestic grazing and equestrian activity and that the park will be enhanced by planting native and historically significant tree species around its perimeter, along denuded stream beds, and in selected groves.

Particular emphasis should be placed on riparian reforestation of Moro and Crystal Creeks utilizing California Sycamores (Platanus racemosa) and Encinas (Quercus agrifolia).

Park perimeter plantings should take the form of drip irrigated linear forests, where deployment of historically significant species such as Tasmanian Blue Gum (Eucalyptus globulus) or Sugar Gum (Eucalyptus cladocalyx) are indicated.

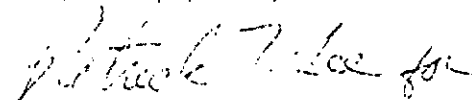
Marine terrace forestation in the form of occasional pocket groves is suggested utilizing historically significant species such as Monterey Cypress (Cupressus macrocarpa), Torrey Pine (Pinus torreyana) and Canary Island Date Palm (Phoenix canariensis).

The entire forestation effort should be aimed at creating shaded areas, largely unavailable at this time, to enhance the recreational utility of the park.

10. Coordination - that the State Department of Parks and Recreation, the California Coastal Conservancy, the County of Orange Environmental Management Agency, and the Orange County Harbors, Beaches and Parks District will continue to communicate and cooperate in matters affecting Crystal Cove State Park and its impact upon the region.

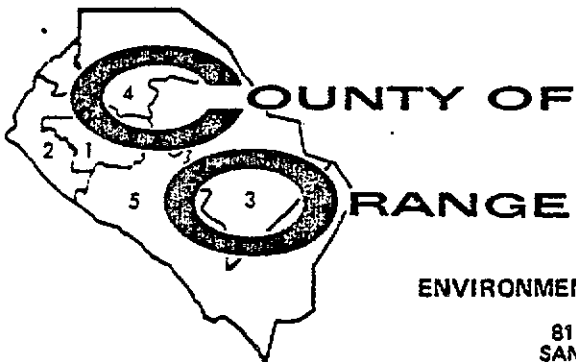
Thank you for the opportunity to respond to this environmental document. Please forward a copy of the draft EIR when it becomes available.

Very truly yours,


Kenneth E. Smith, Manager
Environmental Analysis Division

AVZ:mg

MURRAY STORM
DIRECTOR



MAILING ADDRESS:
P.O. BOX 6048
SANTA ANA, CA 92702

ENVIRONMENTAL MANAGEMENT AGENCY

811 NORTH BROADWAY
SANTA ANA, CALIFORNIA
(714) 834-2306

FILE GSRLR027

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

SUBJECT: General Plan, Crystal Cove State Park

Dear Mr. Doyle:

Subsequent to the letter dated December 29, 1981, the Environmental Analysis Division received the following comments from the Orange County Open Space/Recreation/Special Districts Program Office. Enclosed is a copy of this information for your consideration.

If you have any questions, please contact Patricia Flores at 834-6246.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Kenneth E. Smith".

Kenneth E. Smith, Manager
Environmental Analysis Division

PF:abv

Enclosure

RECEIVED

4 1982

RPI

DATE: DEC 30 1981

TO: Ken E. Smith, Manager
Attn: Dan Fricke/Pat Flores DEPT/DIST: EMA-EAD

FROM: R. F. Wingard, Program Manager OS/Rec/Special Districts Program Office

SUBJECT: Crystal Cove State Park General Development Plan/DEIR

Program staff has reviewed subject plan/DEIR and our comments are as follows:

1. The Master Plan of Riding and Hiking Trails within the Recreation Element of the Orange County General Plan is currently being updated. As such, preliminary trail alignments for the Irvine Coastal Trail have been established linking Upper Newport Bay to Wood Canyon, with trail segments proposed immediately adjacent to the eastern boundaries of Crystal Cove State Park site and Emerald Canyon. Therefore, the subject plan/EIR should provide a discussion and graphic portrayal of said trail alignments and indicate proposed trail connections to link the park with this major proposed County trail. DPR staff involved in the preparation of subject report is encouraged to contact Mr. Ron Tippets, EMA-Program Planning, at (714) 834-5394 for more information regarding said trail.
2. Subject plan/EIR should include an enhancement program for restoration and reforestation of open space and riparian areas damaged through past domestic grazing and equestrian activities. Said program should involve the use of plant and tree species native to the area (e.g., Coast Live Oak, California Sycamore, etc.) and historically significant exotic tree species (e.g., Monterey Cypress, Torrey Pine, Eucalyptus spp. etc.) long since a part of the local area. This is for the purpose of restoring denuded riparian areas, providing development buffer areas to create transitional zones between developed and natural areas, and creating selected groves to soften development proposed within the park and to provide needed shade areas and ambiance within the State Park.
3. As indicated in the September 1, 1981 memorandum (N.O.P Crystal Cove State Park), particular emphasis should be placed on riparian reforestation of Moro and Crystal Creeks utilizing California Sycamores (*Platanus racemosa*) and Encinas (*Quercus agrifolia*) for the purpose of restoring the biological resources within these drainages and wildlife circulation on which breeding, nesting and feeding success depends. It should be noted that improvements along these drainages in terms of roads, fences, bridges, etc. could create artificial barriers to wildlife circulation and effectively weaken the continuity and viability of natural biological communities, and in turn decrease the natural resource value and function of the proposed state park.
4. Development proposals surrounding the park should include provisions to preserve the integrity of the park area to assure its future recreational and natural resource experience. In an effort to mitigate (to the greatest extent possible) the potential impacts of development occurring immediately adjacent to or within the viewshed of the park, as well as limited development within the park itself in terms of grading operations, structural development and general urbanization, the following mitigation measures are recommended:
 - a. Park perimeter planting treatment should take the form of drip-irrigated linear forests deploying historically significant tree species such as Tasmanian Blue Gum (*Eucalyptus globulus*) or Sugar Gum (*Eucalyptus cladocalyx*).

- b. All manufactured slopes created as a result of development within the park as well as private development proposals surrounding and/or within the viewshed of the park should be landscaped utilizing mature plant materials consistent with the area as follows:

Trees:

Quercus agrifolia	Coast Live Oak
Platanus racemosa	California Sycamore
Schinus molle	California Pepper
Eucalyptus (specified above)	Eucalyptus spp.
Cupressus macrocarpa	Monterey Cypress
Pinus Torreyana	Torrey Pine
Phoenix canariensis	Date Palm

Shrubs:

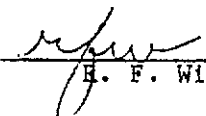
Rhus integrifolia	Lemonade Berry
Sambucus caerulea	Elderberry
Heteromeles arbutifolia	Toyon
Quercus dumosa	Scrub Oak
Lotus scoparius	Deerweed
Salvia mellifera	Black Sage
Salvia Apiana	White Sage
Rosa Californica	California Rose
Ceanothus spp.	California Lilac
Encelia californica	Bush Daisy
Eriogonum fasciculatum	California Buckwheat

Ground Covers:

Eschscholizia californica	California Poppy
Coastal Strand Plant	Coastal Strand Plant
Community Species	Community Species

- c. Marine terrace forestation in the form of occasional pocket groves is suggested utilizing historically significant species such as those indicated above.
- d. Surrounding development proposals should incorporate landscape materials which constitute an expansion of the distribution of riparian tree species as well as exotic species long since a part of the local area. As such, surrounding development should take on much of the parkland character to create effective transition zones and soften urbanization of the area.
- e. Contour grading for the purpose of eliminating hard edges at intersections of graded slope plains should be required of all developments surrounding the park site.

Thank you for the opportunity to comment on subject DEIR. If you have any questions, please contact Mr. Gary, A. Medeiros at Ext. 3148.


H. F. Wingard, Program Manager



Cover:

THE LAGUNA GREENBELT, INC.

a non-profit corporation

Box 860, Laguna Beach, California 92652

Mr. Peter Dangermond, Director.
California State Department of Parks and Recreation.
P.O. Box 2390
Sacramento, Calif.

James M. Doyle, Supervisor
Environmental Review Section.

Dear Gentlemen,

We have examined the Draft Environmental Impact Report in both general and specific detail. We find it a good report.

In general the report should more closely examine the impact of the Irvine Coast LCP. The goals of the two projects seem incompatible. High rise, traffic, crowding etc. have the potential to ruin Crystal Cove State Park. We would urge you to take a vigorous stand on this issue at every juncture.

The Greenbelt concurs with the Friends of the Irvine Coast analysis of the document.

The following pages contain the specific analysis of the document by;

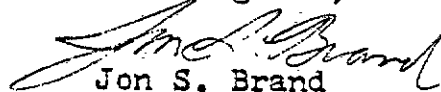
John Wilkerson,
Summer Ranger Naturalist, Olympic National Park.

Fred Lang, Landscape Architect, Advisor Sunset Magazine.

Terry Timmins, Prof. Orange Coast College.

Jon Brand, President, Laguna Greenbelt.

Best Regards,


Jon S. Brand

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DEC 29 1981

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Box 860, Laguna Beach, California 92652

Page 8. Some feel the climate is \rightarrow Koppen System BS Steppe, not Mediterranean.

Santa Anas blow in the fall and winter, most frequently in the month of December.

Page 9. Will Irvine development deplete C.C. State Park Beach sand supply.

Page 10. Faulting does cut through the lower and middle reaches of Moro Canyon.

Page 11. This conflicts with your fire management plan mentioned on Page 21. Why does a fire management plan include "preventive measures" and "fuel management"? Is it necessary to suppress fire in a "fire-type" ecological community?

Page 17. In May of 1981 a killdeer nest with four eggs was observed only 20 feet from the shoreline of the lower reservoir. It is a native bird. Removal of the reservoirs will impact native and exotic plants and animals.

Page 20. It would be wise to collect the seed of the *Dudleya multicaulis* and *Chorizanthe staticoides*.

Page 21. Extreme care needs to be taken in this sensitive area with any fire management program. Serious attention needs to be given to the effects of the Dec. 11 and 12 1979 fire which burned Emerald Bay and Boat Canyons next to CCSP. It could be asked what good came from that fire ecologically?

Page 22. Rattlesnake concentrations need to be located before trails are established to protect both the people and the snakes.

Page 26. ~~Was the~~ Japanese located north of Crystal Cove? Perhaps it was south and east.

Page 27. (last paragraph). Snake and large mammal dens, coyotes, foxes, etc. need to be located immediately and monitored throughout the park's life.



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Page 28. Trails should be closed to horses after significant rainfall to prevent deep entrenchment of the trails.

Page 38. Perhaps equestrian use should be limited to the ridgelines and should not compete with the more pristine uses of the interior canyons with their delicate flora and fauna. Moro Canyon above the lower reservoir can not tolerate the kind of damage horses can generate. We do not see the hiking trails and equestrian hiking trails differentiated on your land use and facilities map as you did in the text on page 38.

Page 61. What will be the impact of the Sand Canyon Roadway on the proposed "environmental living program" centered in Moro Canyon.

Page 61. Last paragraph. Excellent ! This is the place to talk about and guide the thinking of our park visitors towards the lives of basically the same mollusks living along the shoreline today as "fossil" forms which inhabited the more inland Moro Canyon.

Page 64. Points 3 and 4. Vandalism will be high especially in the high use coastal areas. I would suggest that you study current interpretive sign impact at such places as Bolsa Chica State Ecological Reserve before final sign design and placement plans are completed.

Page 65. Point 5. How about a high school group (Laguna Beach High) getting school credit for enrollment in an Regional Occupation Program, ROP, class devoted to on and off site management and maintenance of public parks? We could not only expose these youngsters to environmental education but get them involved in physical work. What an excellent way helping to direct students towards employment opportunities throughout all of our parks--city, county, state and national.

If interested contact; John Wilkerson
Laguna Beach High School.
625 Park Ave.
Laguna Beach, Calif.
92651



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Box 860, Laguna Beach, California 92652

Page 71 Hydrology-- The specific significant impacts to the park from the proposed Irvine Company development along Muddy and Los Trancos Canyons should be identified and mitigated.

Flora. One of the five specimens of oak found in Moro Canyon may be an McDonalds Oak.

Page 74. More recent county median income figures can be obtained. The figure is now over \$20,000.

Page 82, Fauna--Certain types of habitats are regionally very limited and are, therefore, already occupied for example, cavity nesters, including cliffs and tree snags, used for reptile and large mammal dens, would be overwhelmed. Great care must be taken to be sure that limited habitats are not destroyed. This problem should be mitigated.



FRIENDS OF THE IRVINE COAST
POST OFFICE BOX 71
CORONA DEL MAR
CALIFORNIA 92625

→ Dec.
re. Planning
4993
1981

December 23, 1981

Mr. Peter Dangermond, Jr., Director
California State Department of Parks and Recreation
P.O. Box 2390
Sacramento,
California
95811

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DEC 30 1981
PLANNING

Dear Mr. Dangermond:

The Friends of the Irvine Coast and the Laguna Greenbelt Inc., have a consistent record of participation in the planning and hearing processes regarding the Irvine Coast since 1976. The two organizations, representing 2000 members, were at the forefront of efforts to acquire the Coast for the public use and enjoyment through the establishment of state and national parks. While the unique open space opportunity provided by the Irvine Coast doubtless warrants preservation in its entirety, the Friends and the Greenbelt are on record in support of a reasonable intensity and type of development for the area surrounding Crystal Cove State Park. In the interests of pursuing our objective; that the Irvine Coast be developed in a manner consistent with the intent of the Coastal Act and respective of the existing fragile resources there, we submit the following joint comments on the Draft Crystal Cove State Park General Plan and Environmental Impact Report (EIR). The Laguna Greenbelt concurs with this report and will be submitting additional comments.

The purchase of 2791 acres of the Irvine Coast by the people of California was a tremendous victory. However, the type and intensity of land uses proposed for adjacent Irvine Company lands left unchecked, poses a threat to the viability of Crystal Cove State Park. The Draft Crystal Cove State Park Plan and the EIR do not fully recognize the extent of this threat. If development plans recently approved by the County of Orange and the Coastal Commission are implemented at proposed intensities, we fear the Park will be merely a greenbelt to enhance property values and provide residents, employees and conventioners with visual relief and recreation space. The following specific comments fall under the overall concern that the document does not adequately acknowledge or discuss the impacts of surrounding proposed land uses.

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1.0 The Draft Crystal Cove State Park General Plan and accompanying EIR do not adequately address the impacts of surrounding proposed land use. This issue should appropriately be discussed under the mandatory section of the EIR regarding cumulative impacts. Discussions are also appropriate under specific sections including: Scenic, Recreational, Archaeological, Marine and other resources as well as under Population, Transportation and Land Use.

1.1 Cumulative Impacts: A section addressing cumulative impacts should be included in the EIR. The State EIR Guidelines mandate such a discussion. Projects which must be included are those underway or scheduled for the "foreseeable" future. Adjacent Irvine Company lands fit such a description.

A tremendous population will be residing and working on the Irvine Coast as a result of the implementation of the Local Coastal Program Land Use Plan recently approved by the State Coastal Commission. In addition, types, intensities and heights of proposed buildings may interfere with the visual resource value of the Coast as well as activities and the perception by visitors of the "park experience". Traffic, air quality, scenic and recreational resources, biota, the offshore preserve and ASBS area all are issues which warrant a discussion of cumulative impacts.

1.2 Scenic Resources: The plan states, "Crystal Cove State Park's outstanding visual qualities provide a dramatic contrast to the increasing urban character of this coastal region". Further, the plan notes the visual disturbances created by manmade features such as power poles, equestrian facilities and fences. Yet, no mention is made of the impacts associated with 4 and 10 story buildings located on immediately adjacent parcels.

1.3 Recreational Resources: The plan identifies the number of people that could be accommodated at the Park on a peak day; 14,960, assuming a turnover of approximately 2.0. There is no discussion in the plan or the EIR of the population that will result from the development of adjacent Irvine Company lands. Conservatively this population will exceed the 14,960 person capacity of the Park. The table below identifies the sources of anticipated residents, employees and visitors along the Irvine Coast exclusive of Park-generated visitors.

TABLE 1
IRVINE COAST
PROJECTED POPULATION OF IRVINE COMPANY LANDS

<u>LAND USE</u>	<u>INTENSITY</u>	<u>POPULATION</u>
Residential Uses	2000 Market Rate Units	6625 residents
	500 Affordable Units	600 residents
	4000 Guest/Caretaker Units	4000 residents
Commercial Uses	200,000 s.f. Offices	1000+ employees
	1750 Hotel Rooms	1750 employees
	125,000 s.f. visitor serving	2625 guests
	100,000 s.f. resident serving	600 employees
	50,000 s.f. conference center	500 employees
TOTAL		17,700 people

Source: Irvine Coast LCP; Friends of the Irvine Coast Position Paper, 1981.

In this same vein, neither the plan nor the EIR discuss the ramifications of adjacent development upon the carrying capacity analysis (page 27). The cumulative population of the Irvine Coast would seem relevant to visitor perceptions and attitudes as well as to wildlife and resource management.

1.4 Marine Ecological Preserve and Underwater Park Area: Just off the coast of Crystal Cove State Park is the Irvine Coast Marine Life Refuge established by the California Department of Fish and Game and the Irvine Coast Marine Life Refuge Area of Special Biological Significance. Further, the Department of Fish and Game is being requested by the Parks Department to designate an ecological reserve off of Pelican Point pursuant to the recommendations of the Advisory Board on Underwater Parks and Reserves. Discussion regarding the implications of runoff in these areas, not only from projects within the Park but from development on adjacent lands is warranted. Mitigation measures specified lack sufficient specificity.

The plan alludes to the fact that "sediments carried by coastal streams and erosion of ocean bluffs provide particles for beach sand replenishment. This process is especially significant during periods of heavy precipitation or hightides and storm surf, and is an important component in the seasonal cycle of beach erosion and accretion." (page 9) Further explanation of how this process benefits sand replenishment rather than jeopardizes the viability of off-shore kelp beds and other marine life is required in the EIR.

1.5 Cultural and Archaeological Resources: Discussion under allowable use intensity (page 27) indicates that the "most important component in determining allowable use intensity involves an analysis of the natural, cultural and esthetic resources to determine the areas physical limitations for development of facilities and the ability of the ecosystem to withstand human impacts. (ecological sensitivity)." Yet there is no discussion or reference to adjacent land uses and induced population and their impacts upon these resources. While population is to be controlled in sensitive resource areas, there is no overall population or capacity control mechanism.

1.6 Transportation: The EIR states that the traffic forecast for the Pacific Coast Highway near Sand Canyon Road is 46,000 to 52,000 average daily trips in 1995 and that this is at or above its design capacity causing many hours of congestion. There is insufficient discussion of traffic as an impact and no mitigation measures linked directly to this issue. Coupled with the sheer numbers of residents and employees occupying adjacent lands, the accessibility of the Park to the general public may be extremely limited. The completion of the San Joaquin Hills Transportation Corridor is also highly in question. According to the Orange County Transportation Commission it will not be funded or completed in the foreseeable future. Dependence of the plan upon the completion of the Corridor should be addressed.

A shuttle bus is briefly mentioned, however, an explanation of its use by conventioners, residents and employees is missing. Their numbers may preclude others from utilizing the shuttle. It is of the greatest importance that an adequate shuttle system serving Newport Center, the Airport

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and the State Park be implemented. This is essential to solving the existing and future traffic problem in the area.

2.0 General Concerns: The following are general concerns and questions regarding minor components of the plan.

2.1 Combined Hiking and Riding Trails: Are combination hiking and riding trails appropriate in areas of highly concentrated use such as the Irvine Coast? The possibility of accidents involving hikers and riders is a concern. While recognizing numerous wilderness areas in existence where the two are combined, evidence that they are compatible uses is missing from the plan.

2.2 Beach Patrols: The frequency of jeep patrols on the beaches tends to reduce their desirability for recreational use and threatens fragile resources. Is the number of patrols by different agencies necessary, or could adequate control be achieved by foot patrols and lifeguard stations with an infrequent pass by an emergency vehicle?

3.0 Conclusion: The plan has a number of outstanding components; the docent program, visitor facilities, trail systems and so forth. The Friends and the Greenbelt focus their concerns on the likelihood that all of the Park amenities available will not insure the success of the Park experience in such close proximity to high rise hotels and office towers. Even of greater concern is the threat of habitat destruction, cultural, archaeological and other resource despoilation at the fault of urban development ramifications such as run-off, traffic, noise and trampling. Crystal Cove State Park can be a great place for people from all over the state to come and enjoy a peaceful shoreline park. Or it can be a greenbelt for a selected few residents, employees and hotel guests. While there is little the State Parks and Recreation Department can do to change the Local Coastal Land Use Program for the Irvine Coast, it can acknowledge the true impacts promulgated by the proposed types and intensities of land use. Perhaps someone will be in a position to use the information to a better end for the Irvine Coast.

We appreciate the efforts that the Parks Department has made and commend you on including the public in your planning process. Thankyou for your continued support.

Yours Very Truly,

Terry Watt

Terry Watt

Environmental Planning Consultant

On Behalf of the Friends of the Irvine Coast and Laguna Greenbelt Inc.



IRVINE RANCH WATER DISTRICT

P.O. Box D-1 • 201 Campus Drive • Irvine, Calif. 92716 • (714) 833-1223

December 24, 1981

0354KLL12/81
OR 1.14.1

Mr. James M. Doyle,
Superintendent of Environmental
Review Section
Department of Parks and Recreation
Sacramento, California 95811

SUBJECT: CRYSTAL COVE STATE PARK

Dear Mr. Doyle:

The Irvine Ranch Water District (IRWD) has reviewed the Crystal Cove State Park General Plan (Draft of Preliminary) dated November 1981 and offers the following comments regarding water and sewer service to the park for your consideration.

Almost all of Crystal Cove State Park presently lies within the boundaries of the IRWD, however, IRWD currently delivers no water to any customers within the park. It is our understanding that the existing facilities within the park have service. However, they are not served by a public agency and the existing service was subject to termination upon sale of the property to the State or as soon thereafter as transfer to a public agency could be arranged. The selection of the appropriate local public agency to provide water service to the park is complicated by both physical and institutional complexities beyond the scope of a letter response to a proposed general plan. IRWD would be pleased to assist the Park and Recreation staff in making this decision.

It is our understanding that the existing water main in Pacific Coast Highway is actually 33 inches in diameter, is 20 to 30 years old (may be near the end of its useful life), has suffered several major leaks recently and may be in need of major repairs or even replacement. IRWD does not own capacity in this pipeline, but we understand there is another owner in addition to the three named in your report - namely the South Coast County Water District.

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Selection of an appropriate local public agency annexation of park lands thereto (already within IRWD) and acquisition of capacity in the 33 inch pipeline are necessary steps to secure a water supply for the park. However, this may not be sufficient as it may also be necessary to obtain capacity in pipelines upstream of the coastal line.

It is our understanding that the determination that Muddy Canyon would be the line dividing responsibility for sewage collection and treatment was based on previous studies conducted when the Coastal Area was proposed to be mostly high density residential land use. This determination may no longer be appropriate for the currently proposed land uses. Since the park is not in immediate need of sewer service, we suggest that the planning of sewer service for the park be integrated with the plans for sewers to the private developments in the vicinity of the park.

It should be noted that in this area sewage collection and sewage treatment are handled by separate agencies. IRWD is one of several local agencies which could provide sewage collection while sewage treatment could be provided by OCSD #5 and/or AWMA. It should also be noted that when the State paid for their IRWD Assessment District No. 77-1 bonds outstanding against the park lands at the time of purchase, it acquired the right to use certain capacity in portions of the AWMA treatment facilities. It is our understanding that the subject property is not within Orange County Sanitation District #5, and would be required to annex to their system if service were to be provided.

At such time as the Parks and Recreation Department has developed its planning to the point where specific water and sewer service needs are known in terms of location and volumes, the Irvine Ranch Water District would be pleased to assist you in implementing such service for the Crystal Cove State Park.

Sincerely,

IRVINE RANCH WATER DISTRICT

Keith Lewinger

Keith L. Lewinger
Planning Section Head

KLL:jf



THE IRVINE COMPANY

550 Newport Center Drive, P.O. Box 1
Newport Beach, California 92663
(714) 644-3011

December 23, 1981

Mr. James M. Doyle, Supervisor
Environmental Review Section
California Dept. of Parks & Recreation
P. O. Box 2390
Sacramento, CA 95811

Subject: Crystal Cove State Park General Plan and EIR SCH 81072350

Dear Mr. Doyle:

We have reviewed the subject plan and find it generally consistent with the Irvine Coast Land Use Plan (LUP) adopted by Orange County and Coastal Commission. However, there are two observations concerning the policy content of the plan which deserves your attention.

LCP Consistency

Although all policies appear consistent with the adopted LUP, a good number of the environmental policies are less specific than those in the LUP. In order to avoid confusion, we suggest that all applicable LUP policies be identified or referenced in the state park plan.

PCH Improvements

The Irvine Coast LUP designates Pacific Coast Highway as a major, six-lane arterial highway. Since the developer of property adjacent to arterial highways is, as a matter of County policy, required to dedicate right-of-way and construct arterial highway improvements, the General Plan should address the implementation of such actions relative to the phasing of state park development.

Thank you for this opportunity to comment.

Very truly yours,

Thomas H. Nielsen
Senior Vice President
Community Development Division

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MISSION VIEJO COMPANY

January 5, 1982

Mr. James M. Doyle, Supervisor
Environmental Review Section
California Department of Parks
and Recreation
Post Office Box 2390
Sacramento, California 95811

Dear Mr. Doyle:

We have reviewed the preliminary draft of the Crystal Cove State Park General Plan. We are pleased that the State will be developing the park to facilitate public access and use; however, the draft plan is deficient in its handling of equestrian facilities.

One of the dominant issues during public discussion of park development has been the future of the equestrian center presently located on the coastal shelf at Pelican Point. Although the park plan states the stable will be relocated, there is no discussion of alternative sites. Neither the General Plan nor the Environmental Impact Section adequately explores the issue of relocating the equestrian center. This is a major weakness of the plan.

The desire to restrict "non-coastal-related" uses and attempts to provide "high intensity" activities off the coastal terrace provide justification for removing the equestrian center from the present site, but attention should be given in the plan to alternative sites within the park itself. The Environmental Impact Section should at least evaluate the impacts of relocating the present facility east of Pacific Coast Highway in the inland segment of the park. The plan documents the strong interest in horseback riding and provides for a staging area and an extensive trail system within the park. The opportunity to include horse rentals has been left open, but such a service will probably not be economically feasible without boarding facilities.

If the existing site is to be eliminated from consideration because the equestrian center activities conflict with plan objectives and values for the coastal terrace, it would logically follow that other locations within the park, away from the coastline and beach related day-use activities, should be thoroughly analyzed before a decision

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CALIFORNIA 92691 • [714] 837-6050

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Mr. James M. Doyle
January 5, 1982
Page two

is made to relocate the stable off-site. A site inside the park would be easily accessible by existing tenants or users from the beach cities via Pacific Coast Highway and from inland communities via the San Joaquin Hills Transportation Corridor and Sand Canyon Road.

Only if the evaluation of sites inside the park reveals extensive negative impacts should off-site locations be assessed. Relocating the stables to an off-site location at some distance from the park and its proposed trail system may result in adverse environmental impacts that would not occur if both boarding and rental facilities were provided inland of Pacific Coast Highway, within the existing park itself.

We appreciate the opportunity to comment on the draft of the plan for Crystal Cove State Park and expect to see the plan strengthened by a complete evaluation of possible alternative sites for the equestrian center.

Sincerely,

MISSION VIEJO COMPANY



Van Stevens
Vice President

VS/d

cc: Peter Herman
Executive Assistant to Supervisor Riley
Martha Wetzel
Irvine Equestrian Committee
Rebecca Nelson
Irvine Coastal Trail Committee

DAVID A DAVIS
36 BLAZING STAR
IRVINE CA 92714

WESTERN UNION Mailgram

4-036098S358003 12/24/81 ICS IPMRNCZ CSP SACB
2 7145513148 MGM TDRN IRVINE CA 12-24 0241P EST

V JAMES M DOYLE
SUPERVISOR ENVIRONMENTAL REVIEW SECTION
CALIFORNIA DEPT OF PARKS AND RECREATION
PO BOX 2390
SACRAMENTO CA 95811

THIS IS A CONFIRMATION COPY OF A TELEGRAM ADDRESSED TO YOU
CALIFORNIA STATE HORSEMEN'S ASSOCIATION WOULD LIKE TO RESPOND TO
CRYSTAL COVE STATE PARK GENERAL PLAN INCLUDING DRAFT ENVIRONMENTAL
IMPACT ELEMENT REPORT S.C.H. 81072350. PLEASE CONSIDER THIS TELEGRAM
OUR COMMUNICATION TO YOU PRIOR TO DECEMBER 25, 1981 AS PER STATE
E.I.R. GUIDELINES. DETAILED COMMENTS WILL FOLLOW VIA MAIL.
SINCERELY,

MS PAM DAVIS
CALIFORNIA STATE HORSEMEN'S ASSOCIATION
36 BLAZING STAR
IRVINE CA 92714

14:41 EST

MGMCOMP MGM

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DEC 28 1981

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TO REPLY BY MAILGRAM, SEE REVERSE SIDE FOR WESTERN UNION'S TOLL-FREE PHONE NUMBERS

1-8841



The CALIFORNIA STATE HORSEMEN'S ASSOCIATION

897 THIRD STREET • P.O. BOX 1179 • SANTA ROSA, CALIF. 95402 • PHONE (707) 544-2250

Mrs. Pam Davis, Trail Representative
36 Blazing Star, Irvine, CA 92714

January 4, 1982

James M. Doyle, Supervisor
Environmental Review Section
P.O. Box 2390
Sacramento, CA 95811

RE: Crystal Cove State Park General Plan, Including
Draft Environmental Impact Element (Report)
SC# 81072350

Dear Mr. Doyle,

Thank you for including the California State Horsemen's Association (CSHA) in the review process for the above General Plan. This letter constitutes the detailed comments via mail mentioned in my December 24, 1981 telegram to you.

Crystal Cove promises to be an exciting addition to the State Park system. The Department of Parks and Recreation is to be congratulated for perceptively combining recreational uses with the character of this last major open space on the Orange Coast.

PROPOSED FACILITIES

From the horsemen's perspective, several points in the plan are appreciated. To wit:

- the equestrian staging area with sanitation facilities, holding corral/hitch racks, watering troughs and picnic tables;
- the hike-in/ride-in campgrounds with portable comfort stations, hitching racks, watering troughs and camp stoves;
- the expanded numbers of trail miles, ride-in campsites and equestrian staging vehicle spaces from previous plans;
- self-guided equestrian interpretive trail; and
- recognition and provision for connection of Park trails to those of adjacent jurisdictions and communities. (On this point, the planning team may wish to look at the proposed open space dedications lying between the Park and Laguna Canyon Road in order to effect possible trail linkages to Laurel/Wood canyons, Sycamore Hills and then on to the major trail system being developed by the County of Orange in the Aliso Greenbelt.)

Additionally, CSHA supports the Department's suggestion for the possibility of horse rentals within the Park. The interior of the parkland offers beauty and rugged grace. However, not everyone visiting Crystal Cove has the stamina or even the able-bodiedness to

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hike up to enjoy these distant vistas. A horse rental operation would allow visitors with less than strong legs to substitute the four sturdy legs of a horse for their own and thereby gain access to the upper inland areas. In fact at one time, East Bay Regional Park District conducted interpretive trail rides on one of their park horse rental strings. Food for thought.

COASTAL ACCESS

CSHA would like to address one final point. Our comment is in the form of a request. The request is that the Department leave open, as you have with the horse rental, the issue of equestrian access to the beach during non-summer months. Support for this request comes from the following:

Land Use Plan, Irvine Coast Planning Unit, Local Coastal Program (LCP): The Coastal Access section specifically calls out hiking and equestrian trails as allowed in Site 1, which is the land sea-ward of Highway 1. To quote, the LCP says, " Principle permitted uses include ... hiking and equestrian trails ... , (as one of eleven uses listed along with surfing, swimming and sunbathing) ". Therefore, an equestrian trail to the beach is consistent with the approved LCP.

State policy, as stated in the Public Resources Code, Section 5019.53 discusses allowed uses in a state park with mention of improvements "...otherwise available to the public within a reasonable distance outside the park...". A horseback ride along the tideline is a most enjoyable experience, and one that is not available to the public anywhere in this part of California.

Swimming and sunbathing along the sandy beach is very popular during the warm summer months. The winter months, however, bring cooler water and air temperatures with the result that the beaches become virtually deserted. Further, the beach strip itself becomes narrow and rocky in some places due to winter storm action. While this discourages warm weather visitors, equestrians do not find these conditions of any concern.

Historically, beach riding was available to horsemen in this area. The Department has the opportunity to restore this recreation on a part time basis in the Park. Winter access to the beach by equestrians would dovetail very nicely into the yearround management plans for the shoreline. In-place undercrossings for summer beach goers could become wintertime dismount passages to move horses from inland staging areas to the beach. As another point, security personnel for public agencies have in the past indicated that an underused facility can become a public safety hazard. By allowing horseback riding on the beach during slack winter months, several advantages could be realized: 1) the public enjoys expanded recreational use of the shore in the winter; 2) what might become the security problem of an empty beach is now penetrated by park

visitors on horseback; and 3) beach trails would offer the equestrian an alternative during Santa Ana Winds and the possible closure of inland trails that could occur in the late Fall and early Spring.

EROSION

The issue of erosion will likely be part of your consideration of the request for equestrian beach access. The LCP, Resource Conservation and Management section addresses this matter: "The Irvine coast littoral cell is extremely limited and heavily dependent on the local watershed for sand replenishment." In other words, some erosion must make its way to the shore, or the beaches would become permanently rocky and bare of sand. Further from the LCP: "c. Erosion Standards (1.) Erosion shall be allowed to continue at rates approximating the natural or existing level before development."

The Park Plan under review states, "Both natural and human-caused erosion are now occurring along the bluffs. The actual magnitude of erosion is unknown." (page 10). "Soil erosion has been greatly accelerated in the park by heavy grazing, road building, horseback riding, and other uses." (page 19).

It would be inequitable to compare erosion caused by heavy grazing, road building as well as horseback riding from a 300 horse on-site stable to potential erosion from trailered-in horses who may have access to the site for 6 to 7 months of the year.

SUMMARY

The Coastal Act of 1976 states that maximum coastal access and recreational opportunities are to be offered. Also that ocean-front land suitable for recreational use to be protected for that use unless demand is already met by existing development. (Note: Beach riding is not allowed for the public in this part of the State. The County of Santa Barbara is in the process of developing a beach-side trail, but that is quite a distance to trailer a horse for an afternoon outing.)

The Local Coastal Program (LCP), Irvine Unit specifically allows equestrian trails on the bluffs and beach.

The Resource Element of Crystal Cove State Park General Plan admits that the "magnitude of erosion is unknown." Also that erosion is due to many factors, including grazing and a stable. Both are activities which will not be included in the developed Park.

CONCLUSION

Based on the above discussion, CSPA requests that the Department not preclude completely the possibility of equestrian access to

James M. Doyle
January 4, 1982
Page 4

the beach. We ask that the General Plan be modified to include a section specifically addressing the possibility of such an equestrian trail. This would be an allowed, in fact encouraged, use under the regulatory documents of the State and of the County of Orange over the Irvine Coast.

Many eagerly await development of the interim facilities of Crystal Cove State Park and look forward to enjoyment of the beaches, trails and campsites. Especially exciting are the plans outlined for the proposed interpretive programs. This is an example of how we, the people, can further rejoice in the beauty and history of our fine State.

California State Horsemen's Association appreciates the opportunity to review this General Plan and will send a representative to the public meeting in March 1982.

Sincerely,

Pam Davis

Pam Davis, Trail Representative
California State Horsemen's Association

cc: Peter Dangermond, Jr.; Director, Department of Parks and Recreation
Dave Allen; Crystal Cove State Park Planning Team
Ralph Goodson; Chairman, State Recreational Trails Committee



IRVINE COAST EQUESTRIAN PLANNING COMMITTEE

P.O. BOX # 429- CORONA DEL MAR, CA.
92625



RECEIVED

JAN 15 P.M.

Development Division

January 5, 1981

Dave Allen, project director
Crystal Cove State Park
California Department of Parks
and Recreation
P.O. BOX # 2390
Sacramento, CA. 95811

Dear Dave,

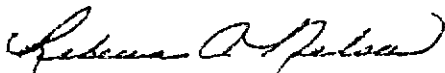
Martha Wentzel of the Irvine Coastal Trail Committee was kind enough to pass along your interest in acquiring some specific information regarding your relocation plans for the Irvine Equestrian Center located in Crystal Cove State Park.

Please be advised that the Irvine that the Irvine Coast Equestrian Planning Committee will continue to represent some of the equestrian interests and the public purpose of this issue. Your specific questions should be addressed to myself for the I.C.E.P.C., and Mr. Dan Spratt of Tri-Starco Inc. at the addresses below. As we discussed during and after the meeting of interested parties you called last August, we can not proceed with possible sites without further clarification of the California Department of Parks and Recreation intentions and responsibilities. We are not aware or have not been informed of any new information since that time.

I have attached copies of two letters which may not have passed your desk as they were sent to Mr. James J. Doyle, Supervisor of the Environmental Review Section. This committee had nothing new to add in critical remarks in reviewing the preliminary draft of the Crystal Cove State Park General Plan that were not included in former remarks or our lengthy report to the Director of July 3rd 1980. We are very disappointed that none of our input appears to be reflected in the draft, with responsible explanations or findings for actions taken or opinions formed by the State Department of Parks and Recreation. I believe that the feelings expressed by Mr. Van Stevens of the Mission Viejo Company will most probably continue to prevail in the County where demand for this recreation is on the increase while the available land and the political climate is not favorable.

As always we are available to assist you when requested.

Sincerely;


Rebecca C. Nelson, I.C.E.P.C.
770 Hillcrest, Pyne Castle # 3
Laguna Beach, CA. 92651

Mr. Dan Spratt
c/o Tri-Starco Inc.
P.O. BOX # 7066, Newport Beach, CA

RCN:dk

Memorandum

Date : November 9, 1981

To : Department of General Services
1015 L Street
Sacramento, CA 95814

125 1014
st

Mike Doyle
Parks & Rec
1220 K Street
Sac 70

From : Department of Parks and Recreation

Subject: Crystal Cove State Park General Plan,
including Environmental Impact Element (Report)
SCH 81072350

Enclosed is a copy of the Crystal Cove State Park General Plan, including Draft Environmental Impact Element (Report).

Any comments or questions should be directed to the attention of James H. Doyle, Supervisor, Environmental Review Section, California Department of Parks and Recreation, P.O. Box 2390, Sacramento, CA 95811 and must be received prior to December 25, 1981. If we do not receive your comments by this date, we assume you have none.

James M. Doyle, Supervisor
Environmental Review Section

Enclosure

Mike -
Read this document and
think that the format used for
the Environmental Impact Element
is very good. I like it better than
the material. We have no comments
thanks for the opportunity to see
your plan.
4-0209

RECEIVED

NOV 13 1981

This General Plan was prepared by:

David L. Allan, Associate Landscape Architect
Alan K. Tang, Assistant Landscape Architect
Court Tanouye, Associate Landscape Architect
Eileen Hook, State Park Interpreter
John Kelly, State Archeologist II
John McAleer, State Historian II
James M. Trumbly, State Park Resource Ecologist
Clark W. Woy, Park and Recreation Specialist
Larry Martz, Research Writer
Gary Caplener, Graphic Artist

Under the supervision of:

Les McCargo, Chief, Development Division
Maurice H. Getty, Chief, Resource Protection Division
Dr. P. E. Nesbitt, Supervisor, Cultural Heritage Planning Unit
Jack L. Hiehle, Supervisor, Natural Heritage Section
H. Lee Warren, Supervising Landscape Architect
James M. Doyle, Staff Park and Recreation Specialist

With the assistance of:

Thomas Miller and staff, Orange Coast Area
Nancy Firchow, volunteer student intern, University of California at Davis,
Summer 1981
Beverly Penney, volunteer student intern, University of California at Davis,
Summer 1981