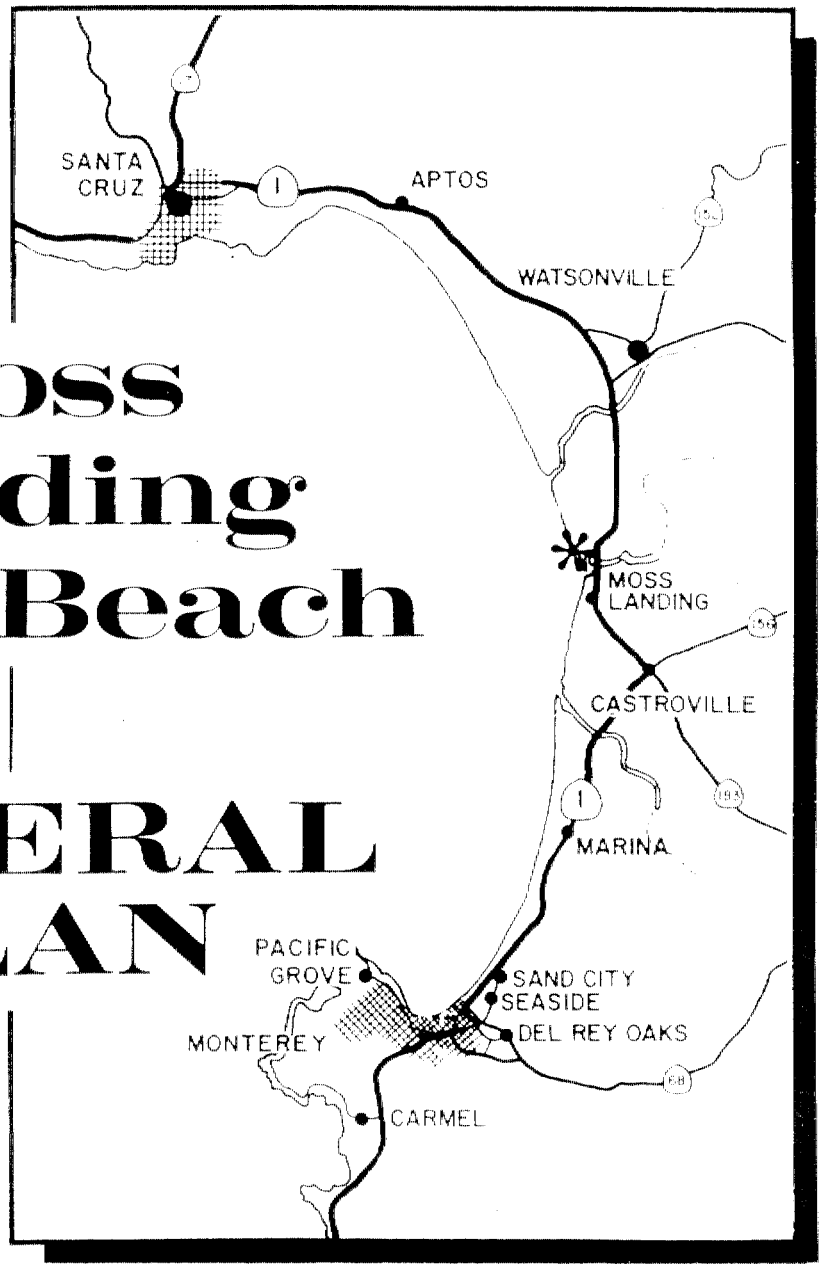
Moss Landing State Beach

GENERAL PLAN



George Deukmejian, Governor
Gordon Van Vleck, Secretary for Resources
Henry R. Agonia, Director

State of California — The Resources Agency
Department of Parks and Recreation

State Parks and Recreation Commission Approval — August 1987

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STATE OF CALIFORNIA—RESOURCES AGENCY GEORGE DEUKMEJIAN, *Governor*

DEPARTMENT OF PARKS AND RECREATION
STATE PARK AND RECREATION COMMISSION
P. O. BOX 2390, SACRAMENTO 95811

Resolution 53-87
adopted by the
CALIFORNIA STATE PARK AND RECREATION COMMISSION
at its regular meeting in Pacific Grove on
August 14, 1987

WHEREAS, the Director of the Department of Parks and Recreation has presented to this Commission for approval the proposed General Plan for Moss Landing State Beach; and

WHEREAS, this reflects long-range development plans to provide for 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 Preliminary General Plan for Moss Landing State Beach, dated May 1987, subject to such environmental changes as the Director of Parks and Recreation shall determine advisable and necessary to implement the provisions and objectives of said plan.

MOSS LANDING STATE BEACH
GENERAL PLAN
SEPTEMBER 1990

George M. Deukmejian
Governor

Gordon K. Van Vleck
Secretary for Resources

Henry R. Agonia, Director
Department of Parks and Recreation

State of California - The Resources Agency
Department of Parks and Recreation
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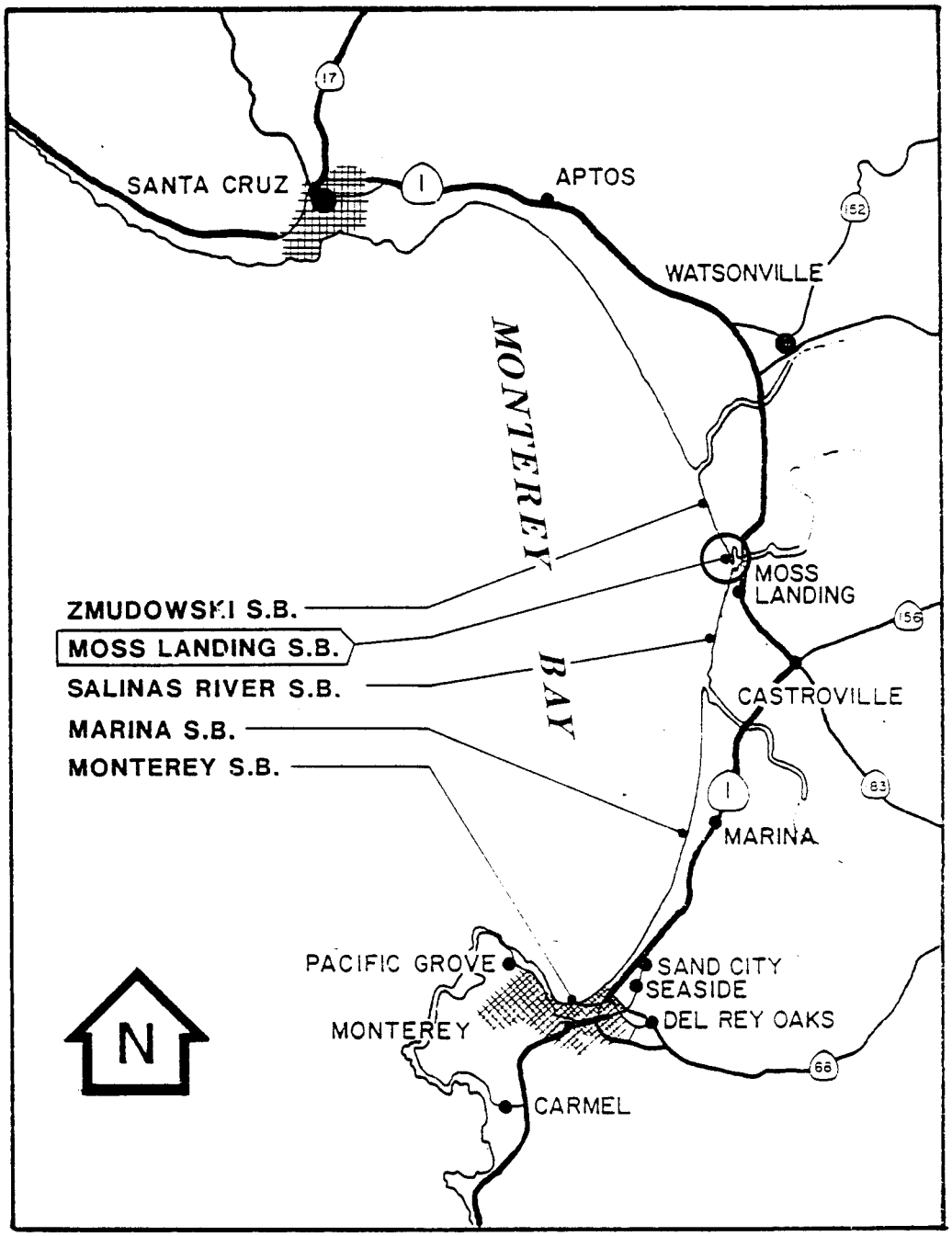


MOSS LANDING STATE BEACH.

Unit Data

STATISTICS
Size: 55 Acres
Ocean Frontage: 4,730 Linear Feet.
Existing Facilities:
-unpaved parking for 65-70 cars
- recent construction of vehicle barriers, dune access and revegetation program
Visitation: 350,000 visitors

VISITOR USE
Primary Recreation activities included:
- Fishing
- Surfing
- Beachcombing
- Bird watching
- Horseback riding

RESOURCES
-Sandy beach
-Coastal salt marsh
-Active coastal dunes
- Rock Jetty

ISSUES AND CONCERNS
-Dune stabilization and revegetation
-Salt marsh and estuary mangement
-Day use parking, restrooms, and beach access.
-Visitor use compatability with resource protection
-Coordinated land use, development, and resource management efforts with Moss Landing Harbor District, and other local, state, and federal agencies.

MOSS LANDING STATE BEACH GENERAL PLAN

SUMMARY

This General Plan for Moss Landing State Beach was prepared as part of an overall general planning process for five state beaches in the northern portion of Monterey County. The others are Marina, Monterey, Salinas River, and Zmudowski State Beaches.

A separate General Plan has been developed for each unit so as to clearly present the material, and more importantly to aid in the future implementation of this plan.

The plans have been developed through extensive coordination within the various departmental divisions and offices, a series of public meetings and user questionnaires, and interaction with local agencies.

All five of these state beaches are similar in that they consist of a stretch of ocean beach backed by coastal dunes. Each is unique, however, in respect to dune heights, vegetation, human disturbance, and recreation opportunities. The beaches themselves are the primary recreation resource, providing opportunities for jogging, fishing, swimming, surfing, horseback riding, and a wide variety of other uses.

This collection of beaches serves visitors both from the adjacent communities and statewide. With the exception of Monterey State Beach, these units present a rural and somewhat isolated experience for visitors. (The City of Monterey and its collection of cultural and recreational resources draw visitors statewide. The proposals of the Monterey State Beach General Plan reflect that relationship.)

Collectively these General Plans provide a wide array of uses; however, individually they will provide only those recreational uses and development that are compatible with the resource values of the unit.

Moss Landing State Beach is located in Monterey County off Highway 1 near Moss Landing Harbor, a busy commercial fishing center 16 miles north of Monterey. The access road into this unit crosses over an inlet and along a peninsula on the inland side of the sand dunes. It has a sandy beach with low sand dunes and the Elkhorn Slough on its south side. The sand dunes support a very sparse coastal strand community.

Indiscriminate access has deleted the slope-retaining vegetation and dune blowouts have occurred with sand moving over the roadway and into the harbor. A dune revegetation project stabilized some sand movement and provided two boardwalks for beach access.

Moss Landing State Beach is popular due to its visibility and easy accessibility from Highway 1, and its fishing and surfing opportunities. Moss Landing State Beach accounts for over 50% of the attendance in these north county state beaches.

A 65-car graveled parking area, chemical toilets, trash containers, and boardwalks are the only facilities provided. A gate and traffic barriers restrict vehicle access beyond the parking lot to the jetty and beach. A temporary kiosk is located along the entrance road for visitor contact and fee collection during peak visitor use.

Most of the proposals as described in the plan will ameliorate existing adverse conditions at the state beach and should be a long-term solution to the needs of the public for circulation, parking, equestrian trails, beach access, improved maintenance, esthetics, and visitor protection. In addition, the natural resources will be better protected.

Key recommendations of the plan include:

- Beach replenishment shall receive serious consideration, and destabilized areas within the dunes shall be revegetated with native plants.

- Beach access and trail connections will continue from the Jetty Road on two existing boardwalks. Additional boardwalks may be provided. A beach and surf observation platform will also be included.

- Head-in and parallel parking will be improved along the ocean side of Jetty Road.

- The existing parking lot should be redesigned to increase capacity and accommodate vehicle access and turnaround at the jetty.

- Trails will be designated for equestrians and beach recreationists.

- Limited-term parking will be provided for disabled persons and for loading and unloading surfing equipment or horses from trailered vehicles.

- A designated picnic area at the jetty will include disabled access to restrooms and a proposed fishing platform.

- Permanent restroom facilities are proposed near the main parking area at the end of Jetty Road with sewer connections made near the highway.

- A joint agency coordination between our department and the Moss Landing Harbor District should be undertaken to improve access from the main parking area to the north harbor to accommodate water-oriented activities such as wind surfing, fishing, and clamming.

INTRODUCTION

MOSS LANDING STATE BEACH GENERAL PLAN

INTRODUCTION

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 for future park management and use. Specific proposals will be further refined when specific items are funded for implementation.

This plan includes the following elements:

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

The Land Use and Facilities Element describes current and proposed land uses, and describes proposed facilities.

The Interpretive Element describes proposals and programs for public information and interpretation.

The Concessions Element describes the use of concessions in the unit.

The Operations Element describes operational guidelines for the unit.

The General Plan as a whole serves as the draft environmental impact report. Environmental impact information is presented in the Environmental Impact Element. Further environmental assessment will be performed when specific construction or management programs are 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.

1. Identify the unit's cultural and natural resources.

2. Identify existing and potential problems, and provide solutions.

3. Determine land use, development, and visitor activities that are compatible with the purpose of the unit 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 unit development.

7. Provide an information document for the public, the Legislature, department personnel, and other government agencies.

RESOURCE ELEMENT

MOSS LANDING STATE BEACH GENERAL PLAN

RESOURCE ELEMENT

This Resource Element was prepared to meet requirements set forth in Section 5002.2, Subsection (b) of Division 5, Chapter 1 of the Public Resources Code and Chapter 1, Section 4332 of Title 14 of the California Administrative Code. In compliance with this section of the Public Resources Code, the Resource Element sets forth long-range management objectives for the natural and cultural resources of the unit. Specific actions or limitations required to achieve these objectives are also set forth in this element; maintenance operations and details of resource management are left for inclusion in specific resource management programs that will be prepared at a later date.

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

Unit Description

Moss Landing State Beach (55 acres) is adjacent to the community of Moss Landing in northwest Monterey County. The unit is in the Coastal Strip Landscape Province. The closest State Park System units are Zmudowski State Beach, 1/2 mile north, and Salinas River State Beach, 1/2 mile south. Watsonville is 7 miles north, Prunedale is 7 miles east, and Castroville is 4 miles southeast.

The unit is bisected by Jetty Road, which provides the only access to the northern Moss Landing harbor breakwater. The unit is adjacent to Elkhorn Slough.

Resource Summary

Natural Resources

Topography

Moss Landing State Beach is located in Monterey County north of the mouth of Elkhorn Slough. The unit is west-facing. Terrain is moderate, with dunes rising to about 30 feet above sea level. Sand dunes are the prominent topographic feature within Moss Landing State Beach. The dunes form the sand spit that separates Moss Landing Harbor from the Pacific Ocean. Ocean frontage is 4,500 linear feet.

Meteorology

Northern California experiences a Mediterranean climate with cool, wet winters and warm, dry summers. The waters of the Pacific Ocean have a profound moderating effect on temperatures along the coast, producing a maritime temperature regime with mild temperatures year-round. Mean daily maximum temperatures for the months of May through November at Moss Landing State Beach are in the low to mid 60s and mean daily minimums are in the high 40s. For December through April, mean daily maximums are in the high 50s and mean

daily minimums are in the middle 40s. Mean annual precipitation is estimated at 18 inches. Most of this precipitation (83%) occurs during the months of November through March.

Windy conditions are the norm around Monterey Bay; the weather station in the City of Monterey reports wind speeds of 4 to 15 miles per hour about 75% of the time and strong winds, 16 to 31 miles per hour, 5% of the time. Calm winds, less than 4 miles per hour, are recorded about 20% of the time.

Fog, or fog-generated low clouds, occurs during all seasons, but is most common on summer mornings and evenings. The Monterey Bay area has fog 12% of the time during July through September. As a consequence of the foggy summers and frequent winter storms, this area only receives about 3,000 hours of sunshine (about 70% of the possible).

Microclimatic zones, areas that depart from the general climatic factors (e.g., insolation, temperature, or soil moisture), are generated at Moss Landing by the ocean, the prevailing breeze, the coastal fog, the sandy beach, and the sand dunes.

Water reflects only half as much solar insolation as land; hence, the ocean stores more energy during the day and releases more energy at night. However, because of its lower specific heat, the land warms up and cools down two to three times as fast as the ocean. These energy storage and temperature differences, together with the prevailing onshore breeze, moderate high and low temperatures near the coast. When the coastal fog moves inland, it enhances this moderating effect. At first, it produces a sudden chill which chases visitors from the beach; thereafter, it acts as a thermal blanket, keeping air and soil temperatures almost constant.

White beach sand and surf reflect about half the solar radiation. This extra half-dose of sunshine accounts for the unexpected sunburns of many inexperienced beach users.

The sand dunes at Moss Landing State Beach provide a very unusual habitat. The high reflectivity of dune sand and its low water-holding capacity create cool, arid conditions.

Hydrology

Moss Landing State Beach is located within the Bolsa Nueva Hydrologic Unit in the Central Coastal Hydrologic Basin. The unit is adjacent to Elkhorn Slough. Soils in the eastern portion of the unit are underlain, in part, by a high water table. A floodway and floodplain exists along Elkhorn Slough; flooding as a result of storm surges and tsunamis is also possible. Groundwater at Moss Landing State Beach has been contaminated by saltwater intrusion. Surface water is contaminated by coliform bacteria and pesticide residues.

Geology

Moss Landing State Beach is within the Salinian block of the southern Coast Ranges geomorphic province. The Salinian block is a wedge of continental material bounded on the northeast by the San Andreas fault zone (about 16 km northeast from Moss Landing State Beach) and on the southwest by the

Sur-Nacimiento fault zone. The continental basement rocks of the Salinian block are granitic and metamorphic in nature, and owe their origin to a distant time and place, having "ridden" northwest along the boundary between the Pacific and North American plates which juxtapose very different basement rocks. However, no bedrock is exposed at Moss Landing State Beach. Only a narrow band of remnant sand dunes and the sandy beach are exposed.

The dunes and beach at Moss Landing State Beach are highly erodible, as they submit to ocean wave attack and the network of volunteer foot and horse trails that honeycomb the formerly vegetated dunes. Comparison of historical aerial photos with modern coverage reveals that the beach has narrowed considerably and the bluff line of the dunes is retreating eastward as storm waves and high tides expend their energy on the yielding sand deposits. The construction of the jetties for the Moss Landing harbor has altered the erosion cycle at Moss Landing and downcoast. The upcoast jetty signifies the limit of the northern Monterey Bay littoral cell. Sand does not migrate downcoast from Moss Landing State Beach across the harbor mouth, and south to Salinas River State Beach. Rather, the jetty serves to dam up the sand along the upcoast side of the jetty and direct "excess" accumulated sand off the shelf and down the Monterey Canyon, which approaches the end of the jetty. The damming effect is limited, though, and several areas within the unit have succumbed to violent storms, high tides, and human use, resulting in narrowed beaches and active sand blowouts. South of the jetties, the beach is markedly narrowed.

Soils

Soil mapping units at Moss Landing State Beach are characterized primarily by coastal beaches and dune land, with a very small area of Alviso silty clay loam.

The coastal beach land type occurs on narrow sandy beaches and adjacent sand dunes and consists of sand, gravel, cobbles, or boulders, or a mixture of these. Coastal beaches are exposed during low tides and inundated at high tide. Drainage is very poor to excessive; erodibility is high.

Dune land is a miscellaneous category consisting of sloping to very steep terrain derived from wind-deposited sand. Drainage and permeability are very rapid. In areas where native vegetation has been removed, wind erosion hazard is high. Dune land is the principal soil mapping unit within Moss Landing State Beach.

Alviso silty clay loam is a nearly level soil that has formed in tidal basins and on tidal flats. The water table is at a depth of 6 to 12 inches. Water runs off very slowly and often ponds. Erosion hazard is minimal. The surface layer is gray to olive gray and neutral; the subsurface layer is light gray and mildly alkaline. A small area of Alviso silty clay occurs along the northeastern boundary of Moss Landing State Beach adjacent to Bennett Slough.

Plant Life

The vegetation at Moss Landing State Beach can be classified as foredune community of the coastal strand. The species diversity of this community is naturally low; however, disturbance and exotic species invasion have further

limited the flora. The most common species are sea fig and Hottentot fig (Carpobrotus aequilaterus and C. edulis), beach bur (Ambrosia chamissonis), sea rocket (Cakile maritima), and European dune grass (Ammophila arenaria).

Vehicular traffic, road construction, and heavy recreational use have taken a toll on the vegetation of the unit, resulting in denuded and blowout areas.

A population of Castilleja latifolia (Monterey paintbrush), a rare plant listed by the California Native Plant Society, is located at the unit. Vehicular and foot traffic endanger the perpetuation of the population.

The Moss Landing State Beach plant list shows 39% exotic species. One of the most aggressive and obnoxious of these is European dune grass, which forms dominant stands in the northern end of the unit.

Animal Life

Habitat diversity within Moss Landing State Beach is very limited. Principal biotic communities are coastal strand, coastal dune, and coastal salt marsh.

The beach and littoral zones, which comprise the coastal strand, are used by harbor seals as a place of rest. Gulls and shorebirds commonly rest on the beach between periods of foraging in the intertidal zone. These birds include California and Heermann's gulls, killdeer, marbled godwits, and sanderlings.

Heavy visitor use within the coastal foredune habitat at this unit has destroyed much of the low-growing herbaceous vegetation, destabilized the dunes, and greatly reduced the value of this biotic community to wildlife. Species which forage or live in this community include the brush rabbit, deer mouse, white-crowned sparrow, and song sparrow.

There is an extensive, well-developed coastal salt marsh bordering much of Moss Landing State Beach. However, only a small portion of this biotic community occurs within the boundaries of the unit. Situated within Moss Landing harbor, this marsh is open to tidal influence. This salt marsh and the adjacent Elkhorn Slough provide extensive habitat for numerous resident and migratory birds. Species of birds that occur in the area include lesser golden plover, snowy egret, ruddy turnstone, and American avocet.

Marine Life

Located within Monterey Bay, the marine environment off Moss Landing State Beach is within the Central California Seascape Province, a region of characteristic geological and biological features extending south from San Francisco Bay to Point Conception.

The marine ecosystem consists of two principal environments, benthic and pelagic. The pelagic habitat is the open water from the surface to the sea floor. Benthic habitats are on the ocean floor and are defined on the basis of depth, substrate, and tidal influences. There are two significant benthic habitats at Moss Landing, intertidal and subtidal.

Intertidal benthic habitat is the sandy beach area between high and low tides. This zone is limited in biological productivity due to the daily exposure to the atmosphere and the constantly shifting sand. Nevertheless, some species, primarily burrowing animals, occur here. The most common burrowing animals are blood worms and the mole crab. Scavangers are also present, primarily beach hoppers. When the tide is in, several fish, including surf perch, diamond turbot, and round stingray, utilize this habitat. When the tide is out, the major vertebrates are foraging shorebirds such as willets and sanderlings.

Subtidal benthic habitat extends from the lowest tide line to a depth of 30 feet and is primarily composed of unconsolidated sand. The dominant species that dwells within the substrate is the polychaete tube worm. Species that dwell on the substrate include dungeness crab and short-spined sea star. Fish that commonly occur in this zone are sanddabs, California halibut, and starry flounder.

The pelagic community is composed of floating and swimming organisms. Floating organisms include the phytoplankton, zooplankton, crustaceans, jellyfish, and copepods. Fish in this zone include surf perch, rockfish, and night smelt. Marine mammals occurring occasionally in this zone include harbor seals and California sea lions. A number of inshore seabirds such as western grebe, surf scoter, Caspian tern, and gulls also utilize this habitat.

The State-listed (threatened) Guadalupe fur seal may occasionally forage near Marina State Beach (a small male was found beached in Monterey Bay in 1977). The federally-listed (threatened) southern sea otter occurs in Monterey Bay and may occasionally be seen from the unit as it migrates between kelp beds, its preferred habitat. Many of the fish and birds that inhabit the marine environment off Moss Landing are of ecological, recreational, and commercial importance.

Ecology

Many small ecosystems occur in the coastal and marine environments of Monterey Bay. These small systems are interrelated by physical and biological elements.

Streams, bluffs, and cliffs contribute sediments to marine ecosystems, which are then redistributed by littoral and oceanic currents. As a result of the current pattern in Monterey Bay, the benthic marine environment at Moss Landing is sandy. Nutrients associated with these sediments are important to marine life in the nearshore zone. Upwelling of cold bottom waters, however, provides the greatest source of nutrients. These nutrients greatly enhance the biological productivity in nearshore marine ecosystems. Because of the upwelling, Monterey Bay is situated in one of the richest marine basins in California.

Moss Landing State Beach extends into part of a well-developed salt marsh and estuary on the inland side of the jetty. This estuary is adjacent to Bennett and Elkhorn Sloughs, one of California's most important coastal wetlands. Estuarine ecosystems develop in partially enclosed water bodies where marine and fresh waters mix such as lagoons, sloughs, river mouths, and protected bays. Estuaries can be considered a complex "edge effect" between terrestrial and aquatic systems and fresh and salt water environments, and are very productive biologically. Abiotic factors affecting the estuary are numerous

and include topography, type of substrate, fresh water inflow, tidal prism, and the resulting salinity and temperature regimes. Gradients often develop that greatly influence the distribution of organisms in the estuary. The gradients develop as a result of localized factors influenced by elevation, salinity, and tidal exposure.

With its dune system somewhat degraded by overuse, Moss Landing does not by itself offer outstanding natural values. However, with extensive land use encroachment in the coastal strip of California, the natural areas surrounding Moss Landing are becoming increasingly more important as vestiges of the natural condition, and as significant habitat for specific plants and animals. The Jetty Beach (Moss Landing) inlet has been identified as an important natural area by the California Natural Areas Coordination Council (CNACC). The open water and salt marsh immediately inland from the unit is of exceptional feeding and roosting value to marine birds. The CNACC also recognized the values of Bennett and Elkhorn Sloughs for the extensive salt, brackish, and freshwater marshes they support. In addition, there is enormous ecological value in the connected mudflats, beaches, dunes, salt ponds, and open water.

Cultural Resources

Archeological Sites

No prehistoric or historic archeological sites have been found in Moss Landing State Beach. A complete field survey and literature search was conducted in 1984.

Standing Structures

There are no standing historic structures in Moss Landing State Beach.

Ethnographic Background

The Indians who lived along the coast from San Francisco Bay to Monterey Bay are generally referred to as Costanoan, though the name Ohlone has become more popular in recent years among native descendents. The terms are an abstraction for a linguistic family of eight distinct languages. Three different languages were spoken on Monterey Bay: Awaswas from Aptos upcoast to Davenport, Mutsun in the Pajaro and lower Salinas River valleys, and Rumsen from about Marina downcoast to the Sur River.

Political organization was limited to a tribelet level consisting of one or more villages, served by a chief and council of elders. Each of the approximately 50 tribelets was like an autonomous nation. Tribelet territories were apparently well defined and defended, with warfare commonly mentioned in historical accounts. Marine resources provided items for trade to inland neighbors, primarily mussels, abalone shells, salt, and dried abalone. Pinon pine nuts and obsidian were obtained as imports.

Prayers, offerings, dreams, dances, and shamanism were important in Ohlone religious life. Musical instruments included whistles, flutes, rattles, and a musical bow. Several types of games and gambling were popular. Most houses were dome-shaped, using thatch to cover a pole framework, and large enough for

10 to 15 persons. Animal skins were used for robes (on cold days), blankets, and bedding, along with tule mats. Baskets were used for storing household items, and especially for collecting, processing, and storing food.

Acorns provided the bulk of the diet, supplemented by a variety of other nuts, seeds, berries, roots, and shoots. Animals were hunted, trapped, and fished, including most of the mammals and reptiles in the area, waterfowl and other birds, and insects. Extensive burning of brush and grasslands helped to improve the hunting and gathering potential of their lands while reducing the danger of wildfires. Beached whales, sea otters, and sea lions were roasted and eaten. Mussels and abalone were gathered, though this resource was probably never abundant along the sandy bay from Aptos to Monterey.

The seven missions in Ohlone territory had cataclysmic and devastating effects on the native population and traditional culture. The Indians living around Monterey Bay were drawn into missions at Santa Cruz, San Juan Bautista, and San Carlos.

Historic Background

Gaspar de Portola's 1769 expedition, and the Rivera-Palou and Hezeta and Palou expeditions of 1774 and 1775, initiated Spanish occupation and missionization of the Monterey Bay area. This missionization activity proved disastrous for the Native Americans. Mexican secularization of the mission system in 1834 further dispersed the remaining Costanoan peoples. Simultaneously with orders for mission secularization came requests for Mexican land grants. For the most part, however, the land encompassing the present-day beach units in Monterey County retained its status as the pueblo lands of Monterey prior to statehood.

Moss Landing State Beach, located just above the Elkhorn Slough/Old Salinas River harbor channel, was originally encompassed by the pueblo lands of Monterey. Shortly after statehood, on March 2, 1853, the corporate authorities of the City of Monterey filed claim for the Monterey pueblo lands before the California Land Commission. The U.S. Surveyor General surveyed the lands and approved the survey on January 5, 1869. Patent was not issued until 1891, however.

In the meantime, these lands were taken up by incoming settlers and entrepreneurs. In 1858, Paul Lazere, envisioning a town at the mouth of Elkhorn Slough, purchased a 300-acre parcel between the mouth of the Salinas River and Monterey Bay. Seven years later, in 1865, Captain Charles Moss obtained a 10-year lease on the land at the mouth of Elkhorn Slough and began construction of Moss Landing, which was located directly below present-day Moss Landing State Beach. He utilized his landing as an agent for Goodall, Perkins and Nelson Company, a shipping firm which had been operating on the inland end of Elkhorn Slough for several years.

In 1871, Lazere sold his holdings to Cato Vierra, who replaced the ferry with a toll bridge and added a wharf to Moss Landing, turning it into one of the most important shipping points on the Pacific Coast at that time. By 1875, however, the Southern Pacific Railroad completed its new line to Watsonville which greatly decreased Moss Landing's importance as a shipping point. Captain Moss let his lease lapse and moved his business to San Francisco, having made a $250,000 profit during his 10-year stay in Moss Landing.

The 1906 San Francisco earthquake drastically altered the Moss Landing tidal basin. The mouth of the Salinas River moved more than a mile south to its present-day location. The old mouth silted in, leaving Moss Landing a shallow lagoon. Four of Moss Landing's five warehouses were destroyed, and shipping at this landing came to a virtual standstill.

In 1908, the Army Corps of Engineers expressed interest in Moss Landing as a prospective harbor. Twenty-two years later, the first of a number of fish canning operations was started at Moss Landing, and in 1939 the Army Corps renewed its interest in a proposed harbor project at Moss Landing.

In 1946, work was finally started on the Moss Landing Harbor. The first cut through the dunes was made on September 11, and the Elkhorn Slough harbor channel was completed in 1947. PG&E chose Moss Landing as a site for a new steam generating plant which began operation in 1950.

In an effort to provide recreational open space in an increasingly industrialized area, the State of California acquired 54 acres (formerly known as the Jetty Beach Project) on January 5, 1972 from David H. Lypps, et ux., A. H. McColley, et ux., Marshall Ashcraft, and J. E. Sullivan, et ux.

Esthetic Resources

The natural scenic resources of Moss Landing State Beach are the views of Monterey Bay and the adjacent Bennett Slough. Other views include the adjacent congested small craft harbor, the community of Moss Landing, and the towering power plant. These features give Moss Landing State Beach an urban character that is in sharp contrast to the surrounding rural countryside.

Recreation Resources

The coastal area of Santa Cruz and Monterey counties is one of the major recreation destinations in California. This area was the destination for roughly one out of 20 recreation trips (4.6%) within the state by Californians in 1980. These trips brought 5,760,000 recreation visitors to the two counties, not including local residents and visitors from out of state. In addition to these "destination" visitors, this area is very popular with persons touring enroute to another destination.

Twenty major recreation activities currently occur at Moss Landing; of these, 10 are strongly dependent on the ocean or ocean beach and six are dependent on other natural resources of the unit. There are few coastal sand dunes in California, and recreation activities that are primarily dependent on the dunes are of outstanding statewide significance. Activities at Moss Landing State Beach include surfing, photography, painting, bird watching, other nature study, and esthetic appreciation. Activities that are primarily dependent on sandy beaches, and which would not heavily impact the adjacent sand dunes because they are typically a low density use at this unit, include sunbathing, beachcombing, clamming, and surf fishing.

There is relatively little Scuba and snorkel diving adjacent to this state beach because the uniform sandy substrate does not provide habitat for the diverse and colorful assemblages of marine plants and animals which attract recreational divers to other areas in the Monterey Bay region.

Resource Policy Formulation

Classification

Moss Landing State Beach has been a unit of the State Park System since 1972. The unit was classified as a state beach by the State Park and Recreation Commission in March 1974. The Public Resources Code defines a state beach as a type of state recreation unit as follows:

> 5019.56. State Recreation Units. State recreation units consist of areas selected, developed, and operated to provide outdoor recreational opportunities. Such units shall be designated by the Commission by naming, in accordance with the provisions of Article 1 (commencing with Section 5001) and this article relating to classification.
>
> In the planning of improvements to be undertaken within state recreation units, consideration shall be given to compatibility of design with the surrounding scenic and environmental characteristics.
>
> State recreation units may be established in the terrestrial or underwater environments of the state and shall be further classified as one of the following types: . . .
>
> (d) State beaches, consisting of areas with frontage on the ocean, or bays designed to provide swimming, boating, fishing, and other beach-oriented recreational activities. Coastal areas containing ecological, geological, scenic, or cultural resources of significant value shall be preserved within state wildernesses, state reserves, state parks, or natural or cultural preserves.

Declaration of Purpose

The purpose of Moss Landing State Beach is to protect, perpetuate, and make available to the people, for their benefit and enjoyment forever, the scenic, natural, cultural, and recreational resources of the ocean beach and the adjacent coastal dunes.

The function of the California Department of Parks and Recreation at Moss Landing State Beach shall be to preserve and protect the unit's resources and provide public opportunities for ocean beach-oriented recreation in a high quality environment.

Zone of Primary Interest

The zone of primary interest is that area outside the unit where land use changes could adversely affect the operation of Moss Landing State Beach. This zone includes the adjacent community of Moss Landing, the boat harbor, the shoreline of the harbor, the jetty, Bennett Slough, and the Elkhorn Slough

area. The department is also concerned about the operation of the Moss Landing power plant, the tanker port, and pipeline because of their potential effect on air, water, natural resources, recreation, and esthetic resources.

In addition, the department is interested in all lands no matter how far away that through their use and development adversely affect the unit's resources and features. Air pollution and acid rain are regional problems that affect the unit's resources and may be caused by changing land uses on distant lands. The damming of rivers and the building of breakwaters and other structures along the coast that disrupt littoral sand movement and may increase coastal erosion is another problem affecting the unit.

Resource Management Policies

Resource management in the State Park System in the Coastal Zone is governed by laws contained in the Public Resources Code and the California Administrative Code. Additional state agencies, such as the Coastal Commission, State Lands Commission, State Coastal Conservancy, Department of Fish and Game, and the Department of Boating and Waterways all have laws and regulations for resource management that must be considered in the development of State Park General Plans along the coast.

Specific departmental Resource Management Directives amplify the legal codes and provide clearer management guidelines. Directives that are especially pertinent to existing or potential problems related to the management of resources within Moss Landing State Beach are:

#15 State Recreation Units; protection of resources
#18 State Beaches; avoid using sandy beaches for secondary uses
#19 State Beaches; protection of resources
#33 Exotic Plant Species
#35 Wildlife Protection
#46 Environmental Quality
#58 Cultural Resource Protection
#70 Archeological Sites

Directives #18 and #19 are particularly relevant to planning issues for the state beaches along Monterey Bay:

> (18) Insofar as is possible in state beaches, the entire area of the sandy littorals will be available for recreation use and visual enjoyment. It is an objective of the department to avoid use of natural sandy beaches for parking or for other supportive or secondary uses.
>
> (19) The scenic, natural, and cultural values of state beaches, including the ecological relationships of the littoral, tidal, and nearshore areas will be identified, evaluated, and protected so the total quality of the recreation experience may be perpetuated and enhanced.

Following several years of significant storm damage in many coastal State Park System units, the department adopted a policy for coastal erosion on October 24, 1984. The intent of the policy is to avoid construction of new

permanent facilities in areas subject to coastal erosion, and to promote the use of expendable or movable facilities where the expected useful life is limited due to their location in erosion-prone areas. The policy reads as follows:

> The Department of Parks and Recreation shall avoid construction of new structures and coastal facilities in areas subject to ocean wave erosion, seacliff retreat, and unstable cliffs, unless specific determinations have been made that the risk of loss of the facility is clearly offset by the investment and need for the facility. Measures shall be taken to minimize human-induced erosion by reducing: concentrated surface runoff from use areas, elevated groundwater levels from irrigation and urbanization, and surface disturbance of blufftop soils. In recognition of California's actively eroding coastline, new structures and facilities located in areas known to be subject to ocean wave erosion, seacliff retreat, or unstable bluffs shall be expendable or movable. Structural protection and reprotection of developments shall be allowed only when the cost of protection is commensurate with the value (physical and intrinsic) of the development to be protected, and when it can be shown that the protection will not negatively affect the beach or the near-shore environment.

In addition to the policies, directives, and laws that apply statewide, the following resource policies have been developed for Moss Landing State Beach:

Monitoring Erosion and Sand Loss

Beach erosion and seacliff retreat have been recognized as serious threats to public facilities and use of coastal units of the State Park System. Better baseline information on erosion rates is needed to plan for appropriate land use, resource management, and visitor safety.

> Policy: The department shall develop and maintain a monitoring program at Moss Landing State Beach to document beach elevation and width. The monitoring program should include the comparison of recent and historical aerial photos, ground photos with explanations, and installation of permanent monuments, if necessary. The program should be coordinated with the U.S. Geological Survey (which has already begun a beach monitoring program), U.S. Army Corps of Engineers, California Department of Boating and Waterways, and the University of California at Santa Cruz.

Shoreline Protective Devices

A proposal could be made to employ structural protection devices at Moss Landing State Beach. Structural protection measures are not consistent with the general objectives for resource management within the State Park System. In certain circumstances, however, when the public facility is of greater necessity and importance than the natural and recreational resources that may be negatively affected, structural protective measures may be appropriate.

Policy: Structural protection measures shall be undertaken only if nonstructural measures (i.e., relocation of facility, setback, redesign, or beach replenishment) are not feasible. If a protective structure is constructed (i.e., riprap, rock revetment, seawall, etc.), the structure shall not:

1) Significantly reduce or restrict beach access
2) Adversely affect shoreline processes and sand supply
3) Significantly increase erosion on adjacent properties
4) Cause harmful impacts on vegetation, wildlife, or fish habitats
5) Be placed further than necessary from the development requiring protection or
6) Create a significant visual intrusion.

Sand Replenishment

The beach at Moss Landing State Beach has narrowed in recent years, as severe storms have removed some of the buffering sand wedge below the dunes, carrying the beach sand to deep water and possibly into the Monterey submarine canyon. The U.S. Army Corps of Engineers and the California Department of Boating and Waterways are embarking on a Monterey Bay erosion study, in cooperation with the Department of Parks and Recreation, U.C. Santa Cruz, and the U.S. Geological Survey. These studies are primarily data collection efforts; however, they will be oriented to developing solutions to perceived problems. One potentially beneficial solution to increased erosion and loss of land base and valuable structures would be to supplement the wave-buffering beach with appropriately-sized materials from offshore or inland sources.

Policy: The department shall coordinate with the various agencies studying storm damage and beach erosion problems of Monterey Bay to develop regional nonstructural solutions to the erosion problems. Beach replenishment shall receive serious consideration as an ongoing, nondestructive solution, that will also result in a more substantial recreational land base.

General Vegetation Management

It is the goal of the department to preserve and perpetuate representative examples of natural plant communities common to the unit and the region. The plant communities at Moss Landing State Beach have been influenced by road and sewer development, off-road parking, heavy recreational use, and invasion by exotic species. The net results of such impacts and alterations include the loss of vegetation and sand, unnatural community structures, alteration of the extent and distribution of many native species, and the invasion of exotics which create deleterious competition with native species.

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

Coastal Dune Management

The dune systems are composed of unconsolidated sand which has been transported from the beach environment by strong onshore winds. The dunes are stabilized with vegetation. Human activities in the dunes can destroy the vegetation and thereby destabilize the dunes. Typically, once vegetation is removed, a dune blowout forms where steady sand movement makes natural revegetation of the area very difficult. If human use of the blowout area continues, natural revegetation is virtually impossible.

Jetty Road runs through Moss Landing State Beach. Parking along the roadway and unregulated pedestrian traffic across the dunes have resulted in significant loss of vegetation and movement of sand onto the roadway. Horseback riding and illegal off-highway vehicle activity have also contributed to this problem. Moss Landing State Beach now has the highest percentage of bare actively moving dune land of any of the state beaches along Monterey Bay.

Coastal dunes provide important plant and animal habitats. Many species are endemic to this habitat type. The use of coastal areas for residential, agricultural, and industrial purposes has destroyed most of the native coastal dune habitat in California. Heavy recreational use has lowered the quality of the dune habitat in many areas. Along Monterey Bay, most of the remaining natural dune environment is within units of the State Park System. The continued existence of coastal dunes and the species dependent upon this habitat type depends on the effective stewardship of the coastal dune resource by the department.

> Policy: Human activities within the dunes shall be regulated to prevent destruction of the natural dune environment. Hiking, horseback riding, hang gliding, and other recreation uses shall be restricted to designated areas and routes. The destabilized areas within the dunes shall be revegetated. In order to maintain the genetic integrity and diversity of California native plants, revegetation efforts will utilize native plants from local populations.

Rare and Endangered Plants

The Monterey Bay area is rich in rare, endangered, and endemic species. Of 18 rare plant species known to occur in the bay's coastal strand and scrub habitats, seven have been confirmed to occur in State Park System units. *Castilleja latifolia* (Monterey paintbrush) is known to occur within Moss Landing State Beach.

Protection of rare and endangered species habitat is an important objective in the statewide management of the State Park System. Rare and endangered plants can be inadvertently destroyed by development of facilities, maintenance programs, visitor use, or other activities, especially when the exact population locations, habitat requirements, and tolerances are not known.

> Policy: Rare and endangered plants found within Moss Landing State Beach boundaries shall be protected and managed for their perpetuation.

Systematic surveys for rare and endangered plants shall be made throughout the unit. If any rare or endangered species is found, all populations shall be mapped and management plans developed for their protection and perpetuation.

Prior to any site-specific development or heavy use activities, additional surveys shall be made for rare or endangered plants in the areas that will be impacted.

Landscaping

Exotic species can detract from the natural appearance of the state beach, escape into the wild and displace native species, have less habitat value for native wildlife, be more prone to insect attack and disease, and require permanent irrigation and greater maintenance costs.

Policy: Landscaping in developed areas should consist of species indigenous to the state beach. If exotic species are used, these shall be species that are incapable of naturalizing in the wild and would not require a permanent irrigation system.

Allowable Use Intensity

The California Public Resources Code, Section 5019.5, requires that a land carrying capacity survey be made prior to the preparation of any development plan for any park or recreation area. Section 5001.96 further requires that attendance be held within limits so established. Allowable use intensity is a refinement of the land carrying capacity concept and is prepared as part of the Resource Element of the General Plan in fulfillment of the above code sections.

Allowable use intensity is just one of several factors considered in developing the Land Use Element of the General Plan. Other factors that may also be considered in determining land use for any unit of the State Park System are classification and purpose, recreation needs, design considerations, and social carrying capacity or the desired quality of the recreation experience.

Allowable use intensity determinations establish the limits of development and use an area can sustain without an unacceptable degree of deterioration in the character and value of the scenic, natural, and cultural resources. Determinations are based on analysis and integration of resource management and protection objectives, resource constraints, and resource sensitivities information.

Resource management objectives are defined by the Public Resources Code and other law, unit classifications and declarations of purpose, and by specific declarations of resource management policy presented in this Resource Element.

Resource constraints are factors that would make visitor use or facility development unsafe, economically impractical, or undesirable. They are determined by evaluating such factors as erodibility and compaction potential of soils, geologic hazards, slope stability and relief, hydrologic conditions, potential for pollution of surface waters, and flooding.

Sensitivities are conditions, locations, or values of resources that warrant restricted use or development to protect resources. Sensitivities are evaluated by considering such factors as the ability of the ecosystem to withstand human impact (ecological sensitivity), not only in the short term but also over a more extended time span; the fragility and significance of archeological and historical resources; vegetation characteristics such as durability, fragility, and regeneration rates; and wildlife considerations such as tolerance to human activity, population levels, and stability. Sensitivities may also include scenic resources; rare, threatened, or endangered plants, animals, and habitats; unique or scientifically important botanic features; and other resources of regional or statewide significance.

Based on the preceding factors, allowable use intensities for lands within Moss Landing State Beach were determined and are shown on the Allowable Use Intensity Map. Three use intensity categories have been developed: low, moderate, and high. The low intensity zone is the coastal salt marsh environment. The moderate intensity zone is the sandy beach where the environment can withstand heavy visitor use but is subject to ocean wave attack. The high intensity zone is characterized by high disturbed coastal dunes.

LAND USE AND FACILITIES ELEMENT

MOSS LANDING STATE BEACH GENERAL PLAN

LAND USE AND FACILITIES ELEMENT

The Land Use and Facilities Element describes the existing facilities and conditions affecting visitor use and activities at Moss Landing State Beach. Specific recommendations and proposals are included for unit access, circulation, and development of interpretive, operations, and public use facilities.

It is intended that the General Plan will serve as a long-range, flexible guide to future planning and development, consistent with our department's resource management policies and specific objectives established by this plan.

Area Recreation and Visitor Facilities

The natural recreation resources of the north Monterey County coastal area consist of a long stretch of shoreline beaches and dunes, an extensive estuary and tidal wetland system, the Pajaro and Salinas rivers, and the wooded hills and ridges inland from the coast. The man-made recreational resources are concentrated in the Moss Landing community area. They consist of docks and piers used for fishing, numerous antique shops, shoreline restaurants, and the Moss Landing Harbor. The outdoor recreational areas generally are undeveloped and offer few facilities. There are no campgrounds, motels, or hotels in the north Monterey County coastal zone. However, the coastal area of southern Santa Cruz County, south of Capitola, has public and private campsites in addition to motels off Highway One within 10 miles of Moss Landing. The community of Marina also includes RV parks and motels 7 miles to the south. These facilities potentially serve traveling visitors to the Monterey Bay coast.

The Elkhorn Slough and Salinas Wildlife Areas adjacent to Moss Landing State Beach are owned by the U.S. Fish and Wildlife Service and managed by the State Department of Fish and Game to provide wildlife habitat for research, education, and appropriate recreation.

Visitor Attendance

Visitor attendance at the state beaches in the north county has remained fairly level over the last few years. Moss Landing State Beach is most popular due to its visibility and easy accessibility from Highway One, and its fishing and surfing opportunities. Although Moss Landing State Beach contains 16% of the shoreline and 12% of the acreage of the north county state beaches, it accounts for over 50% of the attendance.

	FY 83/84	FY 84/85
Moss Landing SB	259,549	350,936
Salinas River SB	124,167	170,604
Zmudowski SB	111,894	92,526

These units receive heavy weekend and summertime use. Unauthorized camping and overnight use occurred along Jetty Road and parking areas prior to the installation of an entrance kiosk and gate at Moss Landing State Beach.

During periods when a user fee is collected at Moss Landing, an increase in beach use occurs at Zmudowski SB, a free beach to the north. Surfing and fishing are very popular recreational activities at Moss Landing, and though extensive fishing takes place along most of the Monterey Bay shoreline, the harbor jetties receive the highest use, accounting for about 45% of the fishing, along this coast.

Large numbers of people like to go clamming on the mudflats of the Moss Landing Harbor and Elkhorn Slough. Birdwatching and nature observation are also popular activities concentrated along the shores of the bay, estuaries, and rivers, and in wetlands and wooded areas.

Existing Land Use and Facilities

Moss Landing State Beach lies adjacent to the busy fishing harbor of Moss Landing. Unit access is from Highway 1 on Jetty Road, which crosses over an inlet and runs along a peninsula on the inland side of the sand dunes. The road terminates at a rock jetty and day-use parking lot. This beach and jetty is a popular fishing and surfing area, and the beach is used for horseback riding from Moss Landing through Zmudowski State Beach to the north. Birdwatching and nature observation are also popular activities, concentrated along the entrance road and adjacent wetlands.

The state beach property wraps around the north harbor at Moss Landing and provides access to the harbor for windsurfing, fishing, and clamming. However, berthing of recreational fishing boats is the primary use of the north harbor. General land use and recreational activities in this area require close coordination of operations between our department, Moss Landing Harbor District, and other local, state, and federal authorities.

This unit is used year round, and until recently was open to the public without fee. Vehicle control, resource protection, and visitor safety were operational problems complicated by the uncontrolled access conditions and increasing recreational use. In 1986, the county transferred ownership and control of Jetty Road to the Department of Parks and Recreation so that a gated controlled access could be developed.

Generally, the beach is undeveloped, and the parking area, chemical toilets, trash containers, boardwalks, and signs are the only facilities provided. An unpaved parking lot on state and harbor district property near the end of Jetty Road provides space for approximately 65 cars. A gate restricts vehicle access beyond this point to the jetty and beach.

The Moss Landing Community Plan for future harbor development makes specific recommendations for improvements to this state beach. Recommended facilities include restrooms, firepits, fish-cleaning facility, increased parking space, bus stop and shelter, and camping areas. Dune erosion and revegetation programs were strongly encouraged, with provisions for beach access and vehicle control.

Recently, our department accomplished a limited dune restoration project for this unit, which stabilized some sand blowouts and provided two boardwalks for beach access from Jetty Road. Vehicle barriers were constructed to prevent

vehicle entry into the sensitive dune and wetland areas. The parking area was leveled and its surface improved. Garbage cans were placed along Jetty Road in addition to a dumpster. Picnic tables and fire rings were also added. An entry kiosk is now situated along the entrance road for visitor contact and fee collection. Since these improvements were made, the unit's appearance has improved considerably and the jetty and beach continue to be a popular recreation area.

The Moss Landing Harbor District, Army Corps of Engineers, Monterey County, State Coastal Conservancy, State Lands Commission, Department of Boating and Waterways, Coastal Commission, and State Department of Fish and Game all have a responsible role in land and water management around Moss Landing State Beach.

Proposed Land Use and Facilities

Beach and Trail Access

Beach access will continue from the Jetty Road on two existing boardwalks. Additional boardwalks may be included as part of future dune restoration projects. These additional walks will include beach and surf observation platforms.

Joint agency planning and development should include improved vehicle access and turnaround at the jetty. Limited-term parking should be provided at this location for loading and unloading surfing equipment, or horses from trailered vehicles. Beach access and trail connections will be discouraged through the fragile dunes and adjacent wetlands, other than on designated boardwalks constructed for this purpose. The equestrian access to the beach will be accommodated near the jetty.

A joint agency coordination between DPR and the harbor district should be undertaken in order to improve access from the main parking area to the north harbor to accommodate water-oriented activities such as wind surfing, fishing, and clamming.

Day-Use Facilities

Parking

The existing parking lot should be redesigned to increase capacity, accommodate access and turnaround near the jetty, and provide parking for trailered vehicles and disabled persons.

Head-in and parallel parking will be improved along the ocean side of Jetty Road between the contact station and main parking lot. This parking will be developed in conjunction with road widening and realignment on the inland side of Jetty Road. Vehicle barriers and boardwalk connections will be retained at their existing locations.

Parallel parking will be designated along the entrance road, allowing stops for bird and nature observation while discouraging parking for day-use picnicking or beach visits.

Our department should coordinate with the Moss Landing Harbor District and Monterey County Planning Department to guide future land use, support facilities, and circulation plan for the north harbor.

Comfort Station

Permanent restroom facilities are proposed near the main parking area at the end of Jetty Road. A sewer line connection will be made near the highway.

Picnic Areas

The designated picnic area at the jetty will provide disabled access to parking, restrooms, and a proposed fishing platform. A fish-cleaning station could be constructed for this area, if an adequate need is determined by the unit operations and district staff.

Interpretive Facilities

A free-standing exhibit shelter with interpretive panels will be located near the jetty and main parking lot. Interpretive signs will be installed along trail and boardwalk locations to explain the resource sensitivity and dune restoration programs in this area.

INTERPRETIVE ELEMENT

MOSS LANDING STATE BEACH GENERAL PLAN

INTERPRETIVE ELEMENT

Interpretive Period

The department will interpret the flow of history at Moss Landing State Beach from geologic times to the present.

Interpretive Themes

Several themes are appropriate for interpretation at Moss Landing State Beach. These themes cover the natural history of the beach, its formation over time and as it exists today. The themes are as follows:

Waves of change, streams of destruction
Building grain-by-grain
Living with the shifting sand
A monster of a canyon at your feet
Living in a slow slough
A visible island of energy
Staying safe at the beach
Riches from the sea
Rebuilding the natural garden
A journey for survival
Steps of destruction
The wandering river

Expanded Themes

Waves of change, streams of destruction: The sand of Moss Landing State Beach comes from several creeks north of the beach, from erosion of the cliffs, and from the Pajaro River. The sediments washed downstream by the rivers are transported north and southward by ocean waves and currents to build up the beach. The same currents and waves also erode the sand during storms and heavy surf, making the beach narrower and steeper. Just offshore of Moss Landing is the Monterey Submarine Canyon. This canyon acts as a funnel to trap sand from the Pajaro River and the Monterey Bay drainages to the south. The sand lost into the canyon eventually flows onto the Monterey fan, far out in the ocean, and is no longer available to build up the beaches.

Building grain-by-grain: Sand dunes along Monterey Bay have formed over time by the combined forces of wind and waves. The sand deposited on the beaches by the waves is blown inland by the wind until it comes to rest against vegetation or other obstructions. The sand grains gradually build up to form dunes. The dunes at Moss Landing State Beach are very easily eroded. Over time they have suffered from erosion by the Salinas River, ocean wave attack, and trails through the vegetation. The harbor jetty has also caused a reduction in available sand by trapping sand from further transport around the head of the Monterey Submarine Canyon.

Living with the shifting sand: The seemingly barren sand dunes are home to several varieties of plants and animals. The adaptations these organisms have made to the constant wind and lack of moisture make them unique. Indeed, some of them live nowhere else. An understanding of these organisms will help the visitor to better understand the dunes.

A monster of a canyon at your feet: Hidden in the waters of the Pacific Ocean offshore of Moss Landing State Beach is the Monterey Submarine Canyon. Comparable to the Grand Canyon, Monterey Submarine Canyon's gorge extends offshore for over 70 miles. The bottom of the trough at the seaward end is over two miles deep (14,000 feet).

The canyon did not form in its present location. It began in the geologic past, somewhere near the present location of Santa Barbara, probably as a small drainage channel controlled by a fault. The young canyon moved northward with the motion of the San Andreas fault for the last 20-30 million years, growing deeper and deeper by the processes of sediment transport and erosion. Today, the canyon retains its depth by the constant erosive action of turbidity currents.

The canyon is a valuable part of the Monterey Bay ecosystem. During the annual upwelling, it acts as a conduit for cold, nutrient-rich water from offshore to the surface of the bay. These nutrients are an important reason for the rich marine life along the California coast.

Living in a slow slough: The inland portion of Moss Landing State Beach includes a mudflat and salt marsh area that is part of the Elkhorn Slough estuarine system. The green edges and slow moving water of the mudflat, salt marsh, and slough are home to many varieties of invertebrates, shorebirds, and fishes. Each day the tidal cycle exposes the mudflats, making their food resources available to resident and migrant shorebirds. As part of the Pacific Flyway, the marshes and waters of Elkhorn Slough and adjacent Moss Landing are popular birdwatching areas. Approximately 300 species of birds have been sighted in and around Elkhorn Slough. During the spring and fall migrations, many species of birds pass through the area on their journeys north and south. The rich mudflats, tidal creeks, and salt marsh of the slough provide an important feeding and breeding habitat for many species of birds and fish.

A visible island of energy: Not far from Moss Landing State Beach is the Moss Landing Power Plant, operated by Pacific Gas & Electric. The plant is visible from most of the state beach and is the subject of much curiosity among visitors. The electricity produced by the plant is the product of steam-powered turbines. The steam is created by heating sea water with natural gas or fuel oil. Sea water from the harbor is taken in to cool the turbines in the power plant and is discharged into Elkhorn Slough after it is cooled to a suitable temperature. It is of interest to beach visitors to understand the relationship, if any, between the power plant, the slough, and the environment of Monterey Bay. The plant helps supply much of the energy needed in this part of California.

Staying safe at the beach: Moss Landing State Beach is a popular recreation beach. Wind surfing, surfing, and other ocean-oriented sports occur here. But, the seemingly quiet waters of the ocean off Moss Landing State Beach hide rip currents and undertows that can turn an afternoon at the beach into a tragedy.

Riches from the sea: Moss Landing State Beach is a very popular fishing beach, particularly in the vicinity of the Salinas River mouth. Early in spring, steelhead are present, while fall is the time to catch striped bass. Shiner perch are available year-round. The kinds of fish caught and the method of surf fishing used are topics of interest to the visitors. The extensive fishing industry is also a viable topic for interpretation.

Rebuilding the natural garden: Over time, the constant use of the dunes by visitors for recreation has caused erosion as well as blowouts of sand. Steps have been taken to correct the damage. Seeds and seedlings of dune vegetation are being planted in barren areas, and foot traffic is restricted to specified areas. These measures, with public cooperation, will soon restore the dunes to their natural beauty.

A journey for survival: Frequently, during the months from December through February, visitors to the beaches around Monterey Bay can see California gray whales or blue whales passing by the shore on their journey south to Baja California. This is a journey for survival. The coming of winter storms and icy water effectively deprives the whales of their food source in the Bering Sea, Arctic Ocean, and Aleutian Island area. Another impetus to the whales' trip to warmer waters is the pending birth of their young. The young whales are born without the all-important layer of fat to insulate them against the cold water, and they need time in the warm southern waters to develop it. After reaching Baja California, the whales rest and eat until March, when they begin the 6,000 mile return to the northern seas. The return trip is usually farther off shore and the whales are not visible from the beaches.

Steps of destruction: The plant and animal life of the dunes exist in a precarious balance between life and death. The recreation potential of the beaches and dunes is recognized, and recreational use is allowed, within certain limits. One of the most important guidelines to be followed when enjoying the dunes at the state beaches, whether on foot or on horseback, is to stay on the existing trails. Each step off these trails can mean erosion of a sand bank, the death of a young plant, or the loss of a source of food and shelter for the animals that live in the dunes.

The wandering river: Moss Landing Harbor was not always in the configuration it appears today. Prior to the earthquake of 1906, the Salinas River flowed into Monterey Bay through Moss Landing. But suddenly, in the winter of 1908, the Salinas River began to empty into the bay about 5 miles southward. The new entrance was maintained by local residents, and much of the old river bed silted in. Elkhorn Slough, located inland of the Old Salinas River, had been a freshwater lagoon until 1908. The shift in the river's mouth cut off the freshwater supply, allowing the sea water to enter the lagoon and convert it into an estuary. In 1946, the federal government began dredging the old Moss Landing Harbor in answer to a need for more fisheries. By 1947, the jetties at the entrance to the harbor were completed and the fishing industry boomed. Today, fishing at Moss Landing is largely noncommercial, although some commercial boats do operate out of the harbor.

Proposed Interpretation

Facilities

There are currently no interpretive facilities at Moss Landing State Beach. The lack of buildable land precludes any extensive interpretive structures. Consequently, minimal interpretive facilities, such as free-standing exhibit shelters with panels, are proposed. A program of seasonally rotating panels is strongly suggested. Possible locations for exhibit structures are near the trail heads on Jetty Road, or at the end of Jetty Road in the parking area.

A nature trail is proposed for the existing trail along the dune and marsh boundary. Interpretive themes would consist of "Living in a Slow Slough," "Living with the Shifting Sand," and "Building Grain-by-Grain."

The proximity of Moss Landing State Beach to the Elkhorn Slough National Estuarine Sanctuary, Moss Landing Wildlife Area, and several Monterey County parks, which provide public access to natural resources, indicates the potential for continuing close working relations with these entities. A brochure has been prepared by the Elkhorn Slough Foundation and the California Department of Fish and Game that gives the locations and facilities of state and county recreation sites in the central Monterey Bay area. Such brochures should be actively supported by this department, and additional cooperative ventures sought. Joint exhibits might also be considered.

Visitor Activities

Visitor involvement in interpretation at present consists of occasional personal contact with the Visitor Services Staff. These contacts will, of course, continue. Casual contacts should be supplemented with guided walks on the beach, in the dunes, and at the mudflats on the themes outlined above.

Interpretive Associations

There are no interpretive associations directly associated with Moss Landing State Beach. The Elkhorn Slough Foundation is a support group that works with the Estuarine Reserve, the Moss Landing Marine Lab, the Nature Conservancy, and the Moss Landing Wildlife Area. The foundation may also be interested in Moss Landing State Beach. California Land Management will be initiating interpretive activities in coordination with DPR.

Interpretive Collections

There are no interpretive collections directly associated with Moss Landing State Beach. However, resources may be available at the Elkhorn Slough Reserve and the Moss Landing Marine Lab.

Interpretive Priorities

1. Continue cooperative interpretation with other resource agencies in the area.

2. Construct exhibit shelter(s).

3. Develop a series of interpretive panels and a suitable seasonal rotation program for those panels.

4. Institute a series of guided interpretive walks on the themes listed in this element.

CONCESSIONS ELEMENT

MOSS LANDING STATE BEACH GENERAL PLAN

CONCESSIONS ELEMENT

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

A concession is a general term for a grant of authority by the department to another party, permitting that party to make specific use of parklands and/or facilities for a specified period of time.

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

Existing Concessions

Moss Landing State Beach is currently operated through a concessions contract with the California Land Management Corporation which includes housekeeping of existing facilities and visitor contact. This contract is effective during the peak visitor use period from March to November.

No other concessions are established at this unit due to the existence of adequate commercial development in adjacent communities, and the lack of recreational activities that might generate a need for commercial facilities in this unit.

Potential Concession Activities

Moss Landing State Beach is close to community areas that currently provide park users with the necessary retail services. Proposed improvements at this state beach, which include parking, restrooms, and trails, may increase the demand on local retailers but will not require the provision of commercial services within the unit. However, special events compatible with the unit's environment can be approved by the appropriate unit manager.

Because of the situation described above, and because of the lack of available sites at the unit for commercial facilities, no new concession facilities are being proposed in this General Plan. It is felt that this approach will encourage private efforts when and where they are needed, in a manner that is still advantageous to the public without adversely affecting park values.

OPERATIONS ELEMENT

MOSS LANDING STATE BEACH GENERAL PLAN

OPERATIONS ELEMENT

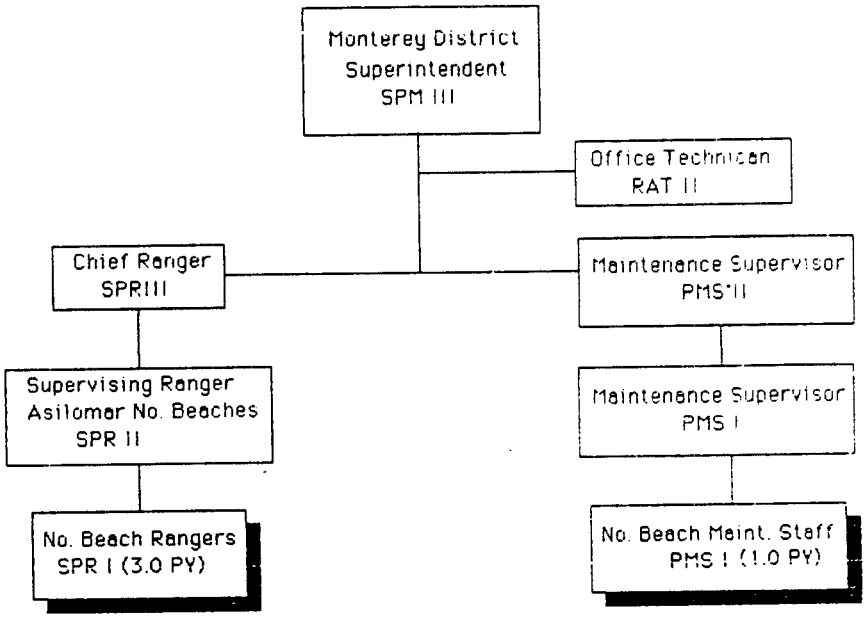
This element outlines broad goals for unit operations in view of the other elements within the General Plan, and also identifies existing or potential operational problems and strategies for solving them.

Existing Situation

Operations responsibilities are carried out under the on-site guidance of first-line supervisors as directed by a district superintendent. The district reports to the regional director. At the district level, operations are divided into three functions: administration, maintenance, and visitor services.

The maintenance and operations staff directly responsible for this unit are centered at the Monterey District Office and Marina State Beach.

The organizational structure of the Monterey District staff associated with North Sector Beach units (Monterey State Beach, Marina State Beach, Salinas River State Beach, Moss Landing State Beach, Zmudowski State Beach) is as follows:



The specific areas of focus include law enforcement, visitor safety, maintenance, and resource management.

Law Enforcement

Before the concession contract for operating this unit was put into effect, it was open to the public without fee. The lack of public contact resulted in vandalism, use of drugs and alcohol, and other harmful activities. The access road through the park property was county-owned, and a majority of patrol was under the jurisdiction of the sheriff's office. Recently, that county road was turned over to the department, so that a gated access could be developed and public contact established. Major holiday weekends such as the 4th of July result in excessive numbers of cars often blocking Jetty Road from ingress and egress.

Visitor Safety

The concession contract to operate the unit has resulted in improved visitor safety and general maintenance. Public contact has generated increased public awareness of ocean hazards. However, it is desirable to have an operating office in the general vicinity of this beach to provide a higher level of staff visibility and quicker response to emergencies. Currently, the operations staff is negotiating with the harbor district for temporary office space to accomplish this.

Maintenance

The park road and beach area that wraps around Moss Landing Harbor are a source of substantial sand movement toward the harbor. This requires extensive sand removal. Currently, the State Park System district does not have sand removal equipment readily available. Therefore, the state has an agreement with the harbor district for funding and an agreement with the county for their equipment to perform the work. This keeps the park road open and eliminates sand movement into the harbor.

Currently, all chemical toilets in the north county beach units are pumped by department staff with equipment borrowed from other districts. The district is looking into the potential for contracting this service out. Moss Landing State Beach has a sewer allocation available in a sewer trunk line on adjacent Highway 1. Future connection will eliminate the need for pumping.

Resource Management

Sand dune stabilization requires initial restoration, three to five years to reach a point of equilibrium, and an annual ongoing program to contain blowouts, remove sand from paving, and replace boardwalks and other facilities.

General Plan Implementation

The proposals of the General Plan set a direction for improved visitor services and resource protection through improved facilities, public contact, and resource policies. This will require a complement of appropriate operations programs to implement the goals of the plan. It will require an expansion of user contact and ongoing dune maintenance programs in a very dynamic environment.

This unit requires an extensive amount of special operational contact with other agencies and organizations. The harbor district, the Army Corps of Engineers, and the State Department of Fish and Game all play a part in the management of land and water surrounding Moss Landing State Beach. The operation of this unit on a year-to-year contract also requires special contract negotiations by the operations staff.

Year-to-year negotiations also are required by the department staff with the harbor district and the County of Monterey in order to accomplish sand removal from Jetty Road.

This unit has some equestrian activity because of the easy access and parking areas. The department recognizes equestrian beach use at Moss Landing State Beach as a justified enjoyable recreation activity. It recognizes also that proper design, public information, and user cooperation are keys to protecting the natural resources and minimizing maintenance. It is anticipated that cooperative programs within the equestrian community are essential to blending its activity with the resources. The results of such an effort should be rewarding to both the department and user groups. Any cooperative programs will require a major involvement by the operations staff to generate and administer equestrian volunteer groups for such things as patrol and user education.

Implementation of a park-staff horse patrol program will greatly improve resource protection and visitor safety. This will require special identification and training of staff to work with the user groups as well as to patrol.

Volunteer Programs

Volunteer equestrian patrol groups may serve this and adjacent state beaches and can provide interpretation and monitoring of equestrian use. This activity would also overlap with dissemination of information to any other beach users.

The Point Reyes Observatory carries on research programs at the north county beaches which include surveys of the various bird activities on the beach, dunes, and marsh areas. It is anticipated that these programs are a potential source of volunteer interpretation for these units.

The Native Plant Society anticipates volunteering through a cooperative effort with the department for seed collection and interpretation of the dunes of the north county beach units.

During the public involvement process of the General Plan, surfing groups also expressed an interest in volunteer activities.

ENVIRONMENTAL IMPACT ELEMENT

MOSS LANDING STATE BEACH GENERAL PLAN

ENVIRONMENTAL IMPACT ELEMENT

Preface

The General Plan, with all its elements, constitutes an environmental impact report (EIR) as required by state law (Public Resources Code Sections 5002.2 and 21000 et seq.). The Environmental Impact Element will comprise "adequate" discussion in accordance with the seven topics usually discussed in an EIR.

When a point has been adequately discussed in another part of the General Plan, it is covered in this element by a reference to that discussion, to avoid redundancy.

Summary

Following are the major environmental effects that will result from implementation of this project, and major mitigation measures that will reduce or eliminate those environmental effects.

In general, the proposed project will benefit the unit's resources and improve facilities for the public. The Monterey paintbrush will be protected, as will other native plant and wildlife species.

Project Description

The Resource Element, the Land Use and Facilities Element, and to a lesser degree the other elements in this plan propose how the unit will be used, how resources will be protected, and what facilities will be constructed.

Description of the Environmental Setting

Please refer to the Resource Element in particular for a description of the natural and cultural environment of this state beach. The Land Use and Facilities Element and, to a lesser degree, other elements also describe the existing natural environment and human influences on the environment.

In addition to these descriptions of the local environmental setting, the following have been added.

Air Quality

Air quality along the Monterey Bay coast is good because of the influx of clean air off the Pacific Ocean. The Salinas II Monitoring Station records in 1985 indicate that gaseous and particulate pollutants were below state and national standards during the period when records were kept. Records at other Central Coast monitoring stations substantiated these findings, but their records were less complete.

Circulation

Road access to Moss Landing State Beach is by Jetty Road from State Highway 1 (Cabrillo Highway). Jetty Road was recently transferred from the county to the Department of Parks and Recreation. The distance from Highway 1 to the end of the road near the jetty is approximately 3/4 mile (see Land Use and Facilities Element).

Public Services

There are no existing utilities connected to this beach. Restrooms are portable, and are pumped out by maintenance personnel.

Fire and rescue protection are handled by department staff, and are also provided by the North County Fire District in Castroville and the Monterey County Sheriff's Department. The Castroville Station has fire engines, a rescue unit, and other equipment. Response time would be about 10 minutes, depending on traffic, location, and other circumstances.

Typical problems to which the rescue unit and sheriff have responded are capsized boats, accidents, and visitor problems, such as fights and drunkenness.

Hospitals in the area are Watsonville Community Hospital in Watsonville, Natividad Medical Center and Salinas Valley Memorial Hospital in Salinas, Fort Ord Hospital for military personnel, and Community Hospital between Monterey and Carmel on the Monterey Peninsula.

The Significant Environmental Effects of the Proposed Project

Most of the proposals as described in the Land Use and Facilities Element and the Resource Element will ameliorate existing adverse conditions at the state beach. Following are listed several possible significant effects to the environment that exist or may be caused by the project, with a discussion of each.

Soils and Geology: Proposed improvements of the existing parking, turnaround area, road widening, and construction of other facilities and trails could denude and disturb some sandy soil.

Sand dune destabilization caused sand to blow into the harbor and Bennett Slough. Sand dunes also support many native plant and wildlife species. (See the Resource Element.)

Energy: Construction equipment used for the project will use energy. This is a short-term effect. Long-term energy use includes beach maintenance, emergency and patrol vehicles, and the use of cars by the public to reach their destinations.

Vegetation and Wildlife: Some native vegetation and wildlife may be inadvertently affected by proposed project construction and, intentionally or unintentionally, by the public. *Castelleja latifolia* (Monterey paintbrush), a rare plant listed by the California Native Plant Society, occurs at Moss Landing State Beach in the foredune community.

The state-listed (threatened) Guadalupe fur seal may venture near the beach, and the federally listed (threatened) southern sea otter has been seen offshore. The area is rich in wildlife, although the dunes have been heavily damaged. There is a likelihood that the public may disturb plants and possibly wildlife in this unit.

Esthetics: The existing appearance of the parking lot, comfort station, and trash receptacles is unattractive. The proposed project will improve esthetics, as well as other conditions. This will be discussed further under Mitigation Measures, below.

Traffic Circulation: Improved parking, improved surveillance by state personnel, and other amenities may increase visitor attendance to the unit, and cause congestion. On the other hand, fewer persons may use Moss Landing when there is a fee collected by personnel in the entrance station and an increase in surveillance.

A concessioner operated the kiosk and state beach during the summer of 1986. It appears that the fee may have discouraged some use (especially illegal camping). It is reported that use at Zmudowski increased as a result. Regular users purchased seasonal passes.

During peak use periods, there may be times when the supply of parking spaces will be inadequate for the number of people wanting to use the state beach. This may cause people to park along Jetty Road, leading to frustration and traffic congestion. This is not a significant effect.

Public Services: This plan proposes that Moss Landing State Beach join into the local sewer district. The comfort station, with running water, will replace the existing chemical pump-out toilets.

Recreation Safety: Certain hazards exist for the unwary recreationist. These include ocean or surf hazards such as riptides, tides, and unexpected high waves. Winter storms and rare tsunami conditions are especially dangerous.

Mitigation Measures

Soils and Geology: The Resource Element describes how revegetation will help stabilize the dunes. Areas that have been denuded by past use and project development will be replanted with native vegetation.

Trails for equestrians and recreationists will be signed and marked. Recently installed barriers and boardwalks will help protect the dunes and make access easier for the public.

Sand will be removed from the roadway and parking spaces and replaced in the dunes or on the beach.

Beach erosion is a regional and statewide problem. Our department will work with the Corps of Engineers and other agencies in finding long-range solutions (see Resource Element policies).

Energy: Use of construction machinery will be minimized in order to conserve energy.

Vegetation and Wildlife: Resource policies for plants and animals as presented in the Resource Element will be followed. Site specific plant surveys will be made prior to development of trails and facilities. Based on these surveys, facilities and trails will be sited so that all sensitive resources are avoided.

The boardwalks and marked trails through the dunes will help protect dune vegetation and wildlife, as well as preventing sand erosion. Interpretive displays will also educate the public and make them more aware of the biota of this state beach and the adjacent Bennett Slough with its abundant wildlife.

Esthetics: The proposed project will improve the esthetics. The new road widening and parking area will improve the appearance of the unit.

Traffic: Road widening, improved circulation, and increased parking and parking lot improvements will help to mitigate the existing parking and circulation problems.

Beach Safety: Unit personnel, with backup help from the county, will help visitors who are in difficulty because of injuries, etc. Signs warning visitors about surf conditions and that there is no lifeguard on duty will be prominently displayed. Wind surfers and recreationists using the harbor should be warned about boats.

Interpretive displays and unit personnel will assist with information to the public.

Any Significant Environmental Effects Which Cannot Be Avoided if the Proposal Is Implemented

Most environmental problems can be effectively mitigated, as described in this plan. Traffic problems on peak days will be one problem that cannot be mitigated. These occasions would be infrequent, and this is not considered a significant effect.

Alternatives to the Proposed Project

The preferred alternative is described in this plan. None of the alternatives considered differ significantly from the proposed plan.

The No Project alternative was also assessed. All of the existing problems described in the Resource Element would probably be exacerbated by this alternative.

The Relationship Between Local Short-Term Uses of the Environment and the Maintenance and Enhancement of Long-Term Productivity

The proposed short-term uses of the area will be similar to the present uses. The proposed project should be a long-term solution to the needs of the public for parking, equestrian trails, beach access, improved maintenance, and visitor protection. In addition, the natural resources will be better protected.

Any Significant Irreversible Environmental Changes Which Would Be Involved if the Proposed Project Should Be Implemented

There would be commitment of nonrenewable resources, such as oil, gasoline, and gravel, to construct roads, parking areas, and other facilities.

Growth-Inducing Impacts of the Proposed Action

This project will not increase human population in the area. The number of parking spaces being proposed is about the same as the number of cars that now park in the parking lot and along the entrance road on a weekend day. Occasions when the parking reaches capacity are infrequent, and this is not a significant effect.

Comments and Responses
General Plan and Draft Environmental Impact Report
Monterey Bay State Beaches in Monterey County
SCH #86011401

Review copies were provided to the following on or subsequent to May 19, 1987. The review period ended July 3, 1987.

State Clearinghouse (10 copies)
Association of Monterey Bay Area Governments
The Honorable Henry J. Mello, Member of the Senate
The Honorable Sam Farr, Member of the Assembly
The Honorable Leon E. Panetta, House of Representatives
Honorable Karin Strasser Kauffman, Chairman, Monterey Co. Board of Supervisors
California Coastal Conservancy, Peter Grenell
California Highway Patrol, J. R. Munson
California Coastal Commission, Edward Brown
Monterey Regional Park District, Board of Directors,
Monterey County Planning Director, Salinas
Monterey North County Fire District, Mark Perira, Castroville
Monterey County Sheriff, Salinas
Monterey County Park and Recreation Director, Richard Brandan, Salinas
Monterey, Fred Cohn, City Manager
Monterey, Manager, City Planning
Seaside, City Manager
Seaside, Ernest Franco, City Planning and Inspection
Marina, City Manager
Marina, Recreation and Park Commission
Marina, Planning Director
Marina, City Water District, Manager
Moss Landing Harbor District, Manager
Moss Landing Marine Lab, Gary Greene
Sand City, Planning Department, Peter Chamberlain
Pacific Grove, Natural History Museum, Vern Yadon
Santa Cruz, Bill Ferral, Resource Planning and Management
U. S. Army Corps of Engineers, Los Angeles
U. S. Army Corps of Engineers, San Francisco, Tom Kendall
U. S. Army, Fort Ord, Environmental Office Director
U. S. Naval Postgraduate School, Monterey, Debora Waxer
U. S. Coast Guard, Monterey, Nick Casara CWO 4
U. S. Fish and Wildlife Service, Endangered Species, Sacramento
Sierra Club State Park System Task Force, Robert Mark, Palo Alto
Sierra Club State Park System Task Force, Murray Rosenthal, Los Angeles
Sierra Club Local Task Force, Carl Larson, Monterey
Point Reyes Bird Observatory, Gary Page, Stinson Beach
California Native Plant Society, Bruce Cowan, Pacific Grove
Pacific Gas and Electric Co., Wayne Yamagina, Salinas
Marina Chamber of Commerce
Elkhorn Slough (NES), Mark Silberstein, Watsonville
Kitty Hawk Sports, James Johns, Marina

Monterey Dunes Colony, Castroville
Sea Mist Farms, Castroville
California Land Management, Palo Alto
Lone Star Industries, Pleasonton
Monterey County Horseman's Association, Castroville
Northern California Morgan Horse Assn., Karin Foy, Livermore
California State Horse Assn, et al., M. A. Miller-Dowdy, Watsonville
North County Trails Committee, Watsonville
Mary Ann Mathews, Carmel Valley
Tom Gillott, Salinas
Santa Cruz Horse Association, Susan Herzberg, Santa Cruz
David Shonman, Pacific Grove
Lee Holthausen, Watsonville
Watsonville Saddlites, Anna Clary, Watsonville
San Martin Horseman's Association, Sheri & Dave Elliot, San Martin
California Dressage Society, Jane Escola, Gilroy
Henry Coe-Pine Ridge Association, Sally Ryser, Morgan Hill
Summit Riders Horsemen's Association, Anne Plucy, Los Gatos
Mission Trails Appaloosa Association, Morgan Hill
Northern California Morgan Horse Association, Margie Barrett, San Martin
Equestrian Trails, Inc., Cathy Conway, Castroville
Horse Heaven, Patricia Sanaran, Aptos
Larkin Valley Horsemen's Association. Watsonville
Natividad 4-H Horse, Bill Moe, Salinas
Sugar Loaf Farm, J. C. Frommhagen, Soquel
American Vaulting Assoc., Soquel
Santa Cruz County Pony Club, Watsonville
Cienega Valley Horseman's Assoc., San Juan Bautista
Equestrian Trails, Inc., Vic Farr, Carmel Valley
Fort Ord Riding Group, Fort Ord
American Morgan Horse Association, D. Dawson, Gilroy
Heritage Trails Association, Soquel
Peruvian Paso Association, Aromas
Año Nuevo Volunteer Horse Patrol, Watsonville
Westwind Equestrian Center, Freedom
4-H Horse Leader, G. R. Beauchaine, Salinas
Carmel Valley Trails Association, Carmel Valley
R. Cali & Bro. Feed, Santa Cruz
El Rancho Escondido Arena, C. "Sam" Samples, Salinas
Dianne Harrington, San Jose
Northern California Junior Rodeo Association, Terry Andrade, Hayward
Santa Clara County Horsemen's Association, San Jose
Full House Farm Newsletter, Los Altos

A notice announcing location of copies of documents for public review was published in the following newspapers:

Monterey Peninsula Herald
Salinas Californian

Documents were available at the following locations for public review:

Dept. of Parks and Recreation
Central Coast Region Headquarters
2211 Garden Road
Monterey, CA 93940

Harrison Memorial Library
Ocean Avenue and Lincoln Street
Carmel, CA 93922

Marina Branch Library
371 Carmel Avenue
Marina, CA 93933

Seaside Branch Library
550 Harcourt Avenue
Seaside, CA 93955

Pacific Grove Library
Central and Fountain Avenues
Pacific Grove, CA 93950

Monterey City Library
625 Pacific Street
Monterey, CA 93940

Monterey County Library
Castroville Branch
11266 Merritt
Castroville, CA 95012

Main Library, Salinas
John Steinbeck Library
110 West San Luis Street
Salinas, CA 93901

Comments were received from the following local, State and Federal agencies and private organizations. No private individuals commented.

Federal Agencies

U. S. Army Corps of Engineers
U. S. Department of Interior, Fish and Wildlife Service

State Agencies

California Coastal Commission
California Department of Transportation, District 5
Regional Water Quality Control Board, Central Coast Region

Local Agencies

Monterey County Planning Department
City of Monterey, City Manager
City of Marina, City Manager

Private Organizations

Point Reyes Bird Observatory

Comments and Responses to Comments

Following are the comments received. Each comment has been given a number and the response to that comment has the same number.

DEPARTMENT OF THE ARMY

SAN FRANCISCO DISTRICT, CORPS OF ENGINEERS
211 MAIN STREET
SAN FRANCISCO, CALIFORNIA 94105 - 1905

June 15, 1987

Environmental Branch

To: Mr. James M. Doyle
Environmental Review Section
Department of Parks and Recreation
P.O. Box 942896
Sacramento, California 94296-0001

Subject: General Plan and DEIR Monterey State Beaches in Monterey County

Your request for comments from this office was received on 21 May 1987 by your letter dated 19 May 1987.

The proposed construction project may require Department of the Army Authorization under Section 10 of the River and Harbor Act of 1899 and/or under Section 404 of the Clean Water Act. A copy of our pamphlet "U.S. Army Corps of Engineers Permit Program, A Guide for Applicants" is enclosed. For additional information please contact our Regulatory Functions Branch at 415-974-0418.

1 - Any impacts on wetlands, threatened or endangered species, other valuable fish and wildlife resources, or on cultural resources are among the important environmental considerations for all Corps permit applicants. Other areas of environmental concern specific to this project are: We encourage the proposed coordination with the Corps on erosion monitoring.

Questions concerning our AB 884 review can be referred to the undersigned at 415-974-0443. Thank you for including us in your review process.

Roderick A. Chisholm, II
Environmental Branch
Planning/Engineering Division

Enclosure

7-3824

United States Department of the Interior

FISH AND WILDLIFE SERVICE

SACRAMENTO ENDANGERED SPECIES OFFICE
2800 Cottage Way, Room E-1823
Sacramento, California 95825-1846

JUN 19 1987

In Reply Refer To:
JAB/1-1-87-TA-471

Mr. James M. Doyle
Environmental Review Section
California Department of Parks
and Recreation
P.O. Box 942896
Sacramento, California 942296-0001

Subject: Preliminary General Plans for Five State Beaches along the Shore of Monterey Bay, Monterey County, California

Dear Mr. Doyle:

In response to your letter of May 19, 1987, we are providing comments on the preliminary general plans for five State Beaches found along the southeastern shore of Monterey Bay in Monterey County. The beaches from north to south are Zmudowski, Moss Landing, Salinas River, Marina, and Monterey.

We generally concur with the resource management policies contained in these plans, especially those relating to the restoration of native flora and the removal or suppression of exotic plants. Moreover, we agree that thorough and systematic surveys for the "rare and endangered" flora should be completed prior to any activities potentially affecting candidate plants. We urge you to incorporate into these plans similar policies for the protection of rare and endangered animal species. If your Department has comparable policies for conserving rare and endangered fauna, they are not stated in the preliminary general plans.

2 Two rare or endangered animal species that occur within State Beaches along the Monterey Bay shoreline are the Smith's blue butterfly and black legless lizard. The Smith's blue butterfly, a federally-listed endangered species, occurs at Marina and Salinas River State Beaches and may occur at Monterey State Beach. The black legless lizard (Anniella pulchra nigra), a Category 2 candidate species, is known to occur at Marina and Monterey State Beaches. The preliminary general plans address

7-3892

many of the issues related to protecting the Smith's blue butterfly and its habitat. However, they do not adequately consider the needs of the black legless lizard, or accurately describe its distribution within State Beaches along the Monterey Bay shoreline.

2 cont. The black legless lizard has a limited historic range that has been subject to habitat fragmentation and loss from a variety of developments and introduction of exotic "weedy" vegetation such as iceplant. Legless lizards with intermediate characteristics between the black legless lizard and more common silvery legless lizard (A. p. pulchra) have been recorded from Salinas River and Zmudowski State Beaches. Although the black legless lizard does not enjoy the legal protection afforded by the Endangered Species Act of 1973, as amended, we recommend that your agency develop and implement policies that perpetuate this fossorial species and its associated habitat. A copy of a U.S. Fish and Wildlife Service inventory report, providing specific locality records for the State Beaches along the Monterey Bay shoreline, is enclosed to assist your environmental planning process.

3 Some of the proposed land uses and facilities discussed in the five plans seem to conflict with the resource management policies mentioned above. For example, visitor use likely will increase at all five beaches as a result of the proposed addition, expansion, or redesign of parking lots to accommodate additional cars and visitors. Other new facilities (i.e., comfort stations, picnic areas) also encourage additional visitor use. Aside from the apparent conflict generally with resource management policies, the intensive use of these five State beaches likely will increase the "people problems" in the dunes, as evidenced by the need to close trails at Moss Landing and Zmudowski, and restrict foot travel to designated routes.

4 Another similar contradiction in the preliminary general plan for Marina State Beach is the designation of a hang glider use area within the proposed "natural preserve". Although we support preserve designation to provide needed protection for the candidate plants [Menzies' wallflower (Erysimum menziesii) and slender-flowered gilia (Gilia tenuiflora subsp. arenaria)] and federally-listed endangered Smith's blue butterfly (Euphilotes enoptes smithi), the proposed "natural preserve" evidently will permit rather intensive use of the northern dune area at Marina

5 State Beach. Heavy recreational use within this area may result in the "incidental take" of the butterfly. If such "take" is likely, a permit to "take" the butterfly must be obtained pursuant to Section 10(a) of the Endangered Species Act. Development of a conservation plan, a necessary component of a Section 10(a) permit application process, must detail the impacts of the proposed taking on the butterfly. Moreover, the

conservation plan should specify the mitigation measures the permit applicant (e.g., Department of Parks and Recreation, City of Marina) will undertake and funding mechanisms made available to implement such mitigation, and alternatives to the proposed project that were considered and the reasons why these alternatives were not implemented by the Department of Parks and Recreation.

5 cont. Currently, the Marina Coastal Zone Planning Task Force (Task Force) of the City of Marina is developing a conservation plan to ultimately accompany a Section 10(a) permit application. The permit, if granted, would allow for the "incidental take" of Smith's blue butterfly within identified portions of the Marina Dunes largely to the north of Marina State Beach. Although the Marina State Beach is represented on the Task Force, "incidental take" relating to ongoing or proposed activities at the State beach has not been considered as part of this conservation plan and permit application. Perhaps, the Department of Parks and Recreation would like to include activities on their lands potentially affecting "take" by expanding the scope of this process to ensure compliance with the Endangered Species Act.

Similar conflicts may occur at Salinas River State Beach if development activities or intensive human uses are allowed in areas where the Smith's blue butterfly occurs. Questions relating to these comments should be addressed to either Jim Bartel or Ed Lorentzen at 916/978-4866. Thank you for the opportunity to comment on these plans.

Sincerely,

Gail C. Kobetich

Gail C. Kobetich
Field Supervisor

Enclosure

cc: David Shonman, City of Marina, Marina Coastal Zone Planning Task Force, 211 Hillcrest Avenue, Marina, CA 93933
Chief, Endangered Species, Portland, OR (AFWE-SE)
Field Supervisor, Ecological Services, Sacramento, CA (ES-S)

OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET
SACRAMENTO, CA 95814

July 3, 1987

James M. Doyle
CA Department of Parks & Recreation
P.O. Box 942896
Sacramento, CA 94296-0001

Subject: General Plans for Monterey Bay State Beaches
SCH# 86011401

Dear Mr. Doyle:

The State Clearinghouse submitted the above named draft Environmental Impact Report (EIR) to selected state agencies for review. The review period is closed and the comments of the individual agency(ies) is(are) enclosed. Also, on the enclosed Notice of Completion, the Clearinghouse has checked which agencies have commented. Please review the Notice of Completion to ensure that your comment package is complete. If the package is not in order, please notify the State Clearinghouse immediately. Your eight-digit State Clearinghouse number should be used so that we may reply promptly.

Please note that recent legislation requires that a responsible agency or other public agency shall only make substantive comments on a project which are within the area of the agency's expertise or which relate to activities which that agency must carry out or approve. (AB 2583, Ch. 1514, Stats. 1984.)

These comments are forwarded for your use in preparing your final EIR. If you need more information or clarification, we suggest you contact the commenting agency at your earliest convenience.

Please contact Norma Wood at 916/445-0613 if you have any questions regarding the environmental review process.

Sincerely,

David C. Nunenkamp
Chief
Office of Permit Assistance

cc: Resources Agency

Enclosures

RECEIVED
JUL 6 1987
RPD

7-4153

STATE OF CALIFORNIA GEORGE DEUKMEJIAN, Governor

CALIFORNIA COASTAL COMMISSION
CENTRAL COAST DISTRICT
701 OCEAN STREET, ROOM 310
SANTA CRUZ, CA 95060
(408) 426-7390

June 23, 1987

James Doyle
California Department
of Parks and Recreation
P.O. Box 942896
Sacramento, CA 94296-0001

Subject: Marina State Beach Preliminary General Plan and Monterey State Beach Preliminary General Plan; State Clearinghouse Notice of Completion 86011401

Dear Mr. Doyle:

We have reviewed referenced plans and have the following comments:

Marina State Beach

We support the State Park proposal to designate the major part of the dune area at Marina State Beach as a Natural Preserve to protect and perpetuate the resource values of the park. Since federally and state listed endangered species have been located in the dunes and since the dunes ecosystem itself is a fragile and easily disrupted habitat, Coastal Act policy 30240 would apply to the area. This policy protects environmentally sensitive habitat against disruption and allows only uses dependent on resources within the area, and in areas adjacent to sensitive habitat areas, development is to be sited and designed to prevent degradation and to be compatible with the continuance of such habitat areas.

There appear to be some discrepancies between the area identified as a proposed Natural Preserve and the kinds of uses considered appropriate (Allowable Use Intensity Map) and the the Land Use Map designations. The following points should be considered in your planning:

6 (1) In addition to the hang glide area shown at the main parking lot, the Land Use Map shows an indentation into the area of the Natural Preserve and indicates the area to be used for hang gliding. This would appear to conflict with the Category II "Low" use intensity of the Allowable Use Intensity Map which indicates that hiking and picnicking in designated areas are the only appropriate uses in this category. If your agency determines that this area is not category II, it should justify the change in

7-3997

6 cont. designation and should provide for minimizing disruption of the dune, e.g., providing boardwalks and platforms for the recreationalists to reduce destruction of the plant life that anchors the dune. There is insufficient discussion in the text as to the development of the hang glide facilities to fully understand what is being proposed.

7 (2) Regarding the hiking and picnicking designations the areas indicated for picnicking on the Land Use Map are appropriately located. However, in the area adjacent to Lake Court previous field surveys had indicated a significant back dune habitat. There may be sections of this area that should be preserved.

8 (3) Regarding hiking trails in the preserve, the use of boardwalks is recommended. Boardwalks are shown at either end of the reserve but it appears that trails will then continue into the dunes. The existing boardwalk greatly facilitates access and discourages random walking over the dunes. We suggest additional boardwalks and that unguided walks be restricted to boardwalks to protect the restoration and preservation program being undertaken by your department.

9 (4) We also suggest that in addition to the excellent policies provided on shoreline erosion and protective structures that the General Plan's Bluff Setback Policy correlate development setback with erosion rate and life span of project, that is, identify a target erosion time span (e.g. 100 year erosion setback) that must be met for new permanent development.

<u>Monterey State Beach - Sand Dunes Drive area</u>

10 (1) No allowable use intensity map was included as the text indicated (p.20). The two allowable uses proposed, (a) high use - highly disturbed sand dunes and (b) moderate use - sandy beach, do not appear appropriate to the higher dune area coterminous with the adjacent Ponderosa property. The federally endangered Smith's blue butterfly has been surveyed in this area. Though the Land Use Map proposes restoration of this area, it is not clear that there is a long term commitment to manage this area for habitat protection.

11 (2) En route camping would provide for a critical public need consistent with the Coastal Act if appropriate protection of dune habitat is provided.

12 (3) To the degree feasible under General Plan procedural regulations we would recommend clarification of the status of the Seaside and Sand City parcels and additional information on future plans for these and other properties for potential inclusion in the Monterey State Park units.

With consideration of the above comments these State Park General Plans provide excellent public recreational opportunities while protecting the natural resources that make the areas desireable for recreational use. If you have any questions or if we can be of assistance, please call.

Sincerely,

Joy Chase
Coastal Planner

cc: Mary Gunter
Norma Wood, OPR Clearinghouse
1913A

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY GEORGE DEUKMEJIAN, *Governor*

DEPARTMENT OF TRANSPORTATION
P.O. BOX 8114
SAN LUIS OBISPO, CA 93403-8114
Telephone: (805) 549-3111
TDD (805) 549-3259

Date: June 29, 1987

Mr. James M. Doyle
Calif. Dept. of Parks and Recreation
P.O. Box 942896
Sacramento, CA 942896-0001

File: MON-001-var.
G.P. for Mon. Bay
State Beaches
SCH#: 86011401

Subject: Intergovernmental Review

Dear Mr. Doyle:

Caltrans District 5 staff has reviewed the above-referenced document. The following comments were generated as a result of the review:

13 Caltrans has no particular concerns other than the fact that expanded and improved parking at the various state beaches will cause incremental increases in traffic turning moves on Route 1. As you are no doubt aware, Route 1 already operates at a very low level of service (F). Additional traffic just exacerbates the existing problems.

If you have any questions, please contact me at (805) 549-3139.

A. C. Carlton
District 5
Intergovernmental Review Coordinator

cc: Terry Roberts, State Clearinghouse
JMA,VLN,CSW

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7-4089

State of California

The Resources Agency of California

Memorandum

To : State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, CA 95814

Date: June 11, 1987

From : William R. Leonard, Executive Officer
California Regional Water Quality Control Board
Central Coast Region—1122 Laurel Lane
San Luis Obispo, California 93401

Subject: MONTEREY STATE BEACHES - PRELIMINARY GENERAL PLAN REVIEW

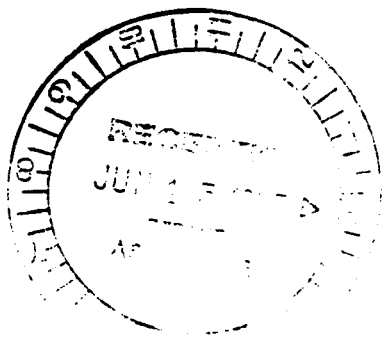
14 We reviewed preliminary general plans for California State Beaches located in Monterey County (Zmindowski, Moss Landing, Salinas River, Marina, and Monterey). At each facility we note there is discussion of restroom facilities "proposed", but no discussion of where the wastewater goes. Restroom facilities should be sewered wherever sewers are available. If restrooms are constructed using on-site septic tank-leachfield systems, they should be built in accordance with specifications in the Board's Resolution No. 83-12 and applicable county criteria.

Very truly yours,

WILLIAM R. LEONARD
Executive Officer

JFC/se

stclearhs.ltr2



MONTEREY COUNTY

PLANNING DEPARTMENT

(408) 422-9018 - P.O. BOX 1208 - SALINAS, CALIFORNIA 93902

ROBERT SLIMMON, JR.
DIRECTOR OF PLANNING

July 1, 1987

Mr. James M. Doyle, Supervisor
Environmental Review Section
Department of Parks and Recreation
P.O. Box 942896
Sacramento, CA 94296-001

Dear Mr. Doyle:

The Department has reviewed the preliminary General Plans for the following State Beaches located in the unincorporated areas of northern Monterey County: Zmudowski, Moss Landing and Salinas River. These documents were analysed with respect to the proposed land uses and facilties planned for each park unit and the certified North County Land Use Plan (LUP) of Monterey County's Local Coastal Program. The LUP is the controlling land use document upon which all State Park General Plans and proposed projects will be evaluated for consistency. Some of the detail comments which follow later address consistency issues. Resolvement of issues will be facilitated through County and State Coastal Commission consideration of the General Plan Program as an amendment to the certified LUP.

The LUP contains a Public Access Component and provides policy for the protection of access opportunities, management plans and programs, priorities for improvements and management for access and recreational facilities, trails, public safety, habitat and resource protection, visual, land use compatibility, parking and facilities and signs and maps. The LUP identifies the Department of Parks and Recreation as the responsible agency for the development of access and recreational facilities for these three State Park units.

In general, we find the preliminary General Plans consistent with the Public Access Component contained in the LUP. However, we note an absence of reference to this controlling land use document and policies (with the exception of its citation as a selected reference) in any of the three plans. The coastal planning effort in Monterey County has, and continues to be a mutual effort among property owners, special interest groups and local, state and federal agencies. The Department of Parks and

Recreation contributed substantial background information to support various aspects of the LUP during its preparation and provided valuable input to assure your management concerns and objectives were included. Planning Department staff have met several times with your staff and have attended public hearings in this State Beach General Plan Program. We are therefore concerned that the preliminary General Plans contain no planning history or identification of the planning process in which this present Program evolved. We would recommend an addition section on the local planning effort and development of the LUP consistent with the Coastal Act of 1976; the Coastal Commission planning effort; as well as State Parks and Recreation General Plan Program and how that Program is part of the comprehensive coastal planning process. At present, the documents stand alone and are not reflective of the rich planning process which has occurred. The General Plan Program needs to be placed into the context of the entire coastal planning process. The following are specific comments to each of the three park units previously identified:

15

Zmudowski

1. p.2 Key Recommendations

16

- o Permanent restrooms requiring public sewer and water are not feasible due to lack of public services to the site. Expansion of such public utilities to this site is also not feasible. Permanent restrooms will require on-site water and septic systems.

17

2.

- o Equestrian use is not presently provided for in the LUP.

18

3.

- o Dune management plans will require County and State Coastal Commission review and approval.

19

4.

- o Signing should also include hazardous or restricted use warnings; if appropriate.

20

5.

- o Operation and maintenance facilities and overnight camping will require County and State Coastal Commission approval.

21

6. p.5 Unit Description, 2nd paragragh

- o This unit is bordered on the north by the Pajaro River, the east by agricultural fields...

7. p.12 Historic Background, 5th paragraph, 3rd line

22 — o "...in 1972, and a 20-acre use permit from the State Lands Commission." Please clarify, explain and/or correct.

8. p.14 Resources Management Policies

23 — o Resource Management in the State Park System in the Coastal Zone is governed by laws contained in the Public Resources Code and the California Administrative Code. Additional state agencies, such as the Coastal Commission, State Land Commission, State Coastal Conservancy, Department of Fish and Game and the Department of Boating and Waterways all have laws and regulations for resource management that must be considered in the development of State Park General Plans along the coast.

9. p.16 Shoreline Protective Devices

24 — o Application of this policy assumes some level of facility (i.e. structure, etc.) exists at Zmudowski. Since no facility exists warranting structural protection, this section can be deleted.

10. p.22 Parking

25 — o Expanded parking will require County review and approval.

11. p.22 Comfort Station

26 — o See Comment #1

12. p.22 Interpretive Facilities

o Signage will require County review and approval consistent with LUP Policy 6.4.J.

13. p.22 Operations and Maintenance

27 — o Any facilities will require County review and approval.

14. p.23 Employee Housing

o Any housing or equipment storage will require County review and approval

15. p.27 Proposed Interpretation

- If the second sentence under "Facilities" is correct "...the lack of buildable land precludes any extensive interpretive structures," How can improvements such as: Employee housing, operations and maintenance facilities and parking be proposed in this General Plan?

28

16. p.33 General Plan Implementation

- Upon Parks and Recreation Commission approval of the General Plan, the Department of Parks and Recreation should submit an amendment application to the LUP for County and State Coastal Commission consideration.

29

17. Mapping

- Land Use and Facilities and Allowable Use Intensity Maps should be amended into the LUP.

18. p.35 EIR

30

- Air Quality. The Monterey Bay Unified Air Pollution District is presently non-attainment for ozone.

MOSS LANDING

19. p.12 Recreation Resources

- Substantial public testimony regarding the use of Moss Landing State Beach by a significant number of surfers was given at the May 28, 1986 public hearing in Marina. This section should include a discussion of this highly popular form of recreation at Moss Landing.

31

20. p.14 Resource Management Policies

- See Comment #8.

21. p.15 Shoreline Protective Devices

32

- See Comment #9 as it relates to Moss Landing State Beach

22. p.23 Existing Land Use and Facilities, 2nd para.

33

- Add Monterey County, State Coastal Conservancy, State Lands Commission, Department of Boating and Waterways and the Coastal Commission to the list of responsible agencies having a role in land and water management around Moss Landing State Beach.

23. p.35 General Plan Implementation

34

- See Comment #16
- See Comment #22 for agencies involved in land and water management responsibilities

35

24. Mapping, see comment #17 regarding Land Use and Use Intensity Maps

25. p.37 EIR

36

- Air Quality, see comment #18

SALINAS RIVER

26. p.11 Animal Life

37

- The City of Marina and State Coastal Conservancy have funded a Habitat Conservation Plan (HCP) for the Smith's blue butterfly consistent with the Engangered Species Act. The study area includes the coastal dunes south of Salinas River Wildlife Management Area to Marina State Beach. Information regarding rare and endangered plants and animals developed from the HCP should be included in this document.

27. p.19 Shoreline Protective Devices

38

- See comment #9 as it relates to Salinas River State Beach

28. p.21 Rare and Endangered Plants

39

- The previously cited HCP (in preparation) has located Chorizanthe pungens Benth. Var. pungens and Erysimum Menziesii in the study area to the south. It is therefore probable these species also occur at Salinas River State Beach.

29. p.26 Parking

40

- See comment #10

30. p.27 Comfort Station

41 — o See comment #1

31. p.28 Employee Housing

42 — o See comment #14

32. p.38 General Plan Implementation

43 — o See comment #16

33. Mapping, see comment #17 regarding Land Use and Use Intensity Maps

34. p.42 EIR

44 — Air Quality, see comment #18

35. p.43 Vegetation and Wildlife

45 — o See comment #27

Thank you for the opportunity to respond to the preliminary General Plans for Zmudowski, Moss Landing and Salinas River State Beaches. We look forward to your responses and inclusion of our comments in the final General Plans. Further, we look forward to participation in the public hearing process at Asilomar this August.

Sincerely,

Robert Slimmon, Jr.
Director of Planning

cc: Supervisor Strasser Kauffman
Supervisor Del Piero
Edward Y. Brown, Coastal Commission

June 19, 1987

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

Re: Monterey State Beach Preliminary General Plan

Dear Mr. Doyle:

On behalf of the City of Monterey, I would like to thank you for the opportunity to review the Preliminary General Plan for Monterey State Beach.

The Preliminary General Plan has been reviewed by the Monterey Parks and Recreation Commission at their meeting of June 2, 1987, and by the Monterey City Council at their meeting of June 16, 1987. Each found the document consistent with existing City policy and policy documents, and endorsed its passage by the State Parks and Recreation Commission.

Our staff has compiled the following technical comments related to the document:

46 — 1. Page 20. The allowable use intensity maps were not included in the City's copies of the Preliminary General Plan.

47 — 2. Page 21. In the second paragraph under Existing Conditions, it is suggested that the wording be changed to read, "Obstruction of views to the Bay from Del Monte Avenue affect the unit's current recreational values."

3. Page 22. The first sentence under Access should read, "There is no legal vehicle access to this unit." In the next sentence the word "primarily" should be inserted before "within the old railroad right-of-way."

7-3887

47 cont. The illegal accesses discussed in the second paragraph will be remedied with the installation of additional barriers, which is scheduled for July, 1987.

4. Page 23. It is suggested that the sentence, "The City of Monterey perceives the open space as a more urban park space" be deleted. Although there has been some preliminary discussion regarding the future use and design of this open space area, no decisions or policy direction have been set.

48 5. Page 25. A water line and a cable TV line run concurrently with the sewage collection line discussed in the document. It is the water line and not the sewage line that is visible. It should be noted that the City is budgeting funds to relocate these lines because of the potential for future loss. The relocation of these lines will lessen the City's need for Sand Dunes Drive for utility access.

49 6. Page 26. With the relocation of the sewer line, alternate service for the proposed comfort station may be required.

50 7. Pages 25 and 26. The improvements discussed for the Sand Dunes Drive area are consistent with the Del Monte Beach LUP, but the LUP does not mention the possibility of overnight camping. We feel that en-route camping would be consistent with the Coastal Act, and appropriate for this location if security concerns can be addressed.

51 8. Page 27. It may be desirable to discuss a potential relationship between the underwater recreation area suggested in the Plan, and a similar area proposed for the Cannery Row region.

52 9. Page 39. Any effort to preserve the habitat for the Smith's Blue Butterfly should be coordinated with other efforts that have occurred, are ongoing, or may be implemented in surrounding areas.

53 10. Page 40. The Public Services section should mention the City's sewer and water lines running through the property, and their potential for damage or loss from ocean forces.

53 cont.

11. Fold-out map. On sheet 1 of the Land Use and Facilities map, the Recreation Trail is shown incorrectly as passing through the Southern Pacific property adjacent to the City beach. The Trail presently follows an interim alignment adjacent to Del Monte Avenue. It also may be appropriate to show the future improvements proposed for the City beach in the Harbor LUP, such as the beach craft launch area in the area of Wharf #2.

Again, thank you for the opportunity to review this document. Should you have any questions, please contact Mr. Fred Cohn of my office at (408) 646-3760.

Sincerely,

Lee Riordan
City Manager (Interim)

dt

c Community Development Director
Parks and Recreation Director
Senior Administrative Analyst
City Clerk
Ms. Mary Gunter, District Superintendent,
Monterey District

City of Marina
211 HILLCREST AVENUE
MARINA, CALIFORNIA 93933
(408) 384-3715

July 2, 1987

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

Dear Mr. Doyle:

The City Council of the City of Marina had an opportunity to review the Marina State Beach Preliminary General Plan. One of our Councilmembers, Joan Blake, made the following comments after her careful review of it.

54 Page 15 Zone of Prime Interest

Don't care for all the "concern" about Water District, and why the concern over Corp Yard? Gas Hazard? This isn't clear at all. Also, fail to see how the rest is of so much concern, as Parks primary job is for visitor serving reasons, and RV and Motels bring in what Parks is about.

55 Page 28 Staying Safe

Swimming? This needs to be striken from para.

56 Page 35 Maintenance - Para III

Dislike user fee - fines for littering should first be tried - funds should be used only for improvements.

57 Land Use Plan

One hand says erosion, then Plan shows parking and restrooms in what could be considered near danger zone.

Thank you for the opportunity to review the Plan.

Sincerely,

Larry W. Bagley

LARRY W. BAGLEY
City Manager

LWB/frc

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JUL 6 1987
RPD

7-4152

POINT REYES BIRD OBSERVATORY

4990 Shoreline Highway, Stinson Beach, California 94970
Telephone (415) 868-1221

June 17, 1987

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

Dear Mr. Doyle:

58 This letter (responding to the preliminary general plans for Zmudowski and Salinas River state beaches) addresses only protection to nesting Snowy Plovers through the proposed Natural Preserves. I think the steps taken in both plans are excellent. A particularly valuable approach has been to limit access at Zmudowski Beach to the existing entry points. Since the Natural Preserve at Salinas River State Beach requires the same kind of protection, the park system should not open access to the south end of the beach in the future (see page 27). Access at the south end will make it much more difficult to limit human disturbance to the Natural Preserve. It will also increase public access to the Salinas River Wildlife Refuge, another important plover breeding site. Access to sensitive areas should be restricted to walk-in traffic only.

Snowy Plovers breed along the entire length of Salinas State Beach. As beach use increases by the public, breeding plovers will become more and more restricted to the preserves. The total number of plovers using state beaches will decrease with the loss of nesting sites in heavily used areas, thus the preserves will become essential to protecting this species. I believe it is particularly important not to allow access to the south end of Salinas River State Beach.

Sincerely,

Gary W. Page
Director Coastal and Estuarine Program

7-3891

Response to Comments

1. It does not appear that any of our actions will require a permit from the U. S. Army Corps of Engineers. We wish to continue to coordinate with the Corps on erosion monitoring.

2. Existing State and Federal laws and DPR policies provide for protection of rare and endangered fauna. One of our objectives for all of these units is to protect and restore native dune ecosystems. Meeting this objective should benefit the native flora and fauna including rare, threatened, and endangered species. Specific management actions to benefit the black legless lizard and the Smith's blue butterfly will be undertaken as specific needs and funding are identified. DPR funded a study of the Smith's blue butterfly at Marina SB in 1986. A copy of the report was sent to the U.S. Fish and Wildlife Service (USFWS) Endangered Species Office in Sacramento.

3. The Department believes that if carefully designed and regulated the land use and facility proposals can be implemented without conflicting with resource management policies. If conflicts develop, the resource management policies will take precedent over land use and facilities proposals.

4. Hang gliding within the proposed Natural Preserve will be severely limited to a relatively few experienced pilots operating from a small launch area. No significant impact is predicted.

5. The relatively intense visitor use of the northern area at Marina State Beach will be limited to the ocean beach and the immediate vicinity of the parking area. Access to the dunes in this area is currently limited to a designated boardwalk trail. The surrounding dune area is fenced and officially closed to all public use. These restrictions will continue as long as needed to protect the listed species which occur in this area. We do not believe that incidental take of Smith's blue butterfly is likely through the implementation of these plans. We will keep the USFWS and the California Department of Fish and Game (DFG) informed about DPR activities which may affect sensitive species in this and the other units.

6. Please refer to response #4.

7. The land use and facilities map is schematically drawn. Sections of significant back dune habitat near Lake Court could be included in the Natural Preserve. Also see response #3.

8. We agree that boardwalks greatly facilitate access and discourage random walking over the dunes. The Department is studying the construction and maintenance costs of the boardwalks and their effectiveness. The trail connecting the two terminuses of the boardwalk would be posted and at some time in the future a boardwalk may be constructed. All use would be restricted to boardwalks and designated trails in the preserve.

9. Pages 18 and 19 in the Marina State Beach General Plan discuss the Department's bluff setback policy. We haven't identified a target erosion timespan, but we believe that permanent facilities setback in the zone of demonstration would not be threatened for many years. The many factors that involve shoreline bluff erosion make a target date prediction extremely difficult.

10. The allowable use intensity map for Monterey State Beach was inadvertently omitted. The federally endangered Smith's blue butterfly and other endangered and threatened species will be protected here as well as in other State Beaches. (See responses #2 and 3.)

11. We agree that en route camping would provide a critical public need in the Sand Dunes Drive area of Monterey State Beach. The Department has a commitment to protect the dunes habitat. State Park Rangers will enforce rules and regulations concerning restrictive use in certain designated areas. (Also see response #3.)

12. The status of parcels that may be acquired cannot be discussed in this General Plan because of the sensitive nature of the proposals.

13. This comment is noted. The Department supports possible solutions to the traffic problems.

14. We agree. Restrooms will be sewered whenever sewer lines are available now or in the future. Septic tanks and leach lines will be used if conditions permit this. A pumpout system will be used otherwise. We will work at having water and sewer lines to as many restrooms as possible in the future.

15. The general plans for these State Beaches were coordinated with local, State and Federal agencies. We believe the plans are consistent with the Local Coastal Plan (LCP), even though the text may not include a large volume of background material on that subject.

16. See response #14.

17. Equestrian use has been authorized at Zmudowski, Moss Landing, and Salinas River State Beaches. The County LCP should be amended.

18. Comment noted and we will seek approval.

19. Comment noted.

20. See response #18.

21. Corrections, deletions and additions noted.

22. The Department has a lease from the State Lands Commission for a 20-acre parcel at the mouth of the Pajaro River. This parcel is operated as part of Zmudowski State Beach. The lease enables the Department to protect resources, enforce rules and regulations and allow public use.

23. See resonse #21.

24. This policy was included because shoreline protective devices have been or may be suggested. Residents of the development to the north of Zmudowski have built a seawall on their property. We feel that this policy needs to be included and should not be deleted from any of the General Plans.

25. See response #18.

26. See response #14.

27. See response #18.

28. Please see pages 22 and 23 in the Zmudowski S.B. General Plan. These proposals are conditional to additional land and other requirements.

29. When the Department proceeds with planning for implementation, we will submit plans and maps for approval. (See response #18.)

30. See response #19.

31. See response #21.

32. See response #24.

33. See response #21.

34. See response #29.

35. See response #21.

36. See response #19.

37. See response #19.

38. See response #24.

39. See response #19.

40. See response #18.

41. See response #14.

42. See response #18.

43. See response #29.

44. See response #19.

45. See response #24.

46. See responses #10 and 21.

47. See response #21.

48. See responses #21 and 19.

49. See responses #19 and 14.

50. See response #11.

51. See response #21.

52. See response #10.

53. See response #21.

54. We disagree. The Department is very concerned about surrounding properties and local activities that could affect State Park System units. For example, traffic to the corporation yard and water district affect traffic and congestion on Reservation Road and access to Marina State Beach. Likewise, the mining of sand affects the sand replenishment to State Beaches. The sewer operation could affect visitor health. Many more examples could be given.

55. We disagree. Swimming, while not a major activity, is a valid recreation activity.

56. See response #19.

57. See response #9. The drawings are schematic and the permanent facilities appear closer to the edge of the bluff than in fact they will be.

58. We agree that the nesting areas for the snowy plover need as much protection as possible. The proposed future access point at the south end of Salinas River State Beach is still a preliminary consideration. This would be an interpretive area for visitors and an observation point. Access would be prohibited during sensitive periods.

SELECTED REFERENCES

Department of Fish and Game, The Natural Resources of Elkhorn Slough, Their Present and Future Use, Coastal Wetlands Series #4, State of California, The Resources Agency, January 1972.

Greene, Gary, United States Geologic Survey, Moss Landing, telephone conversation with Eileen Hook, August 5, 1986.

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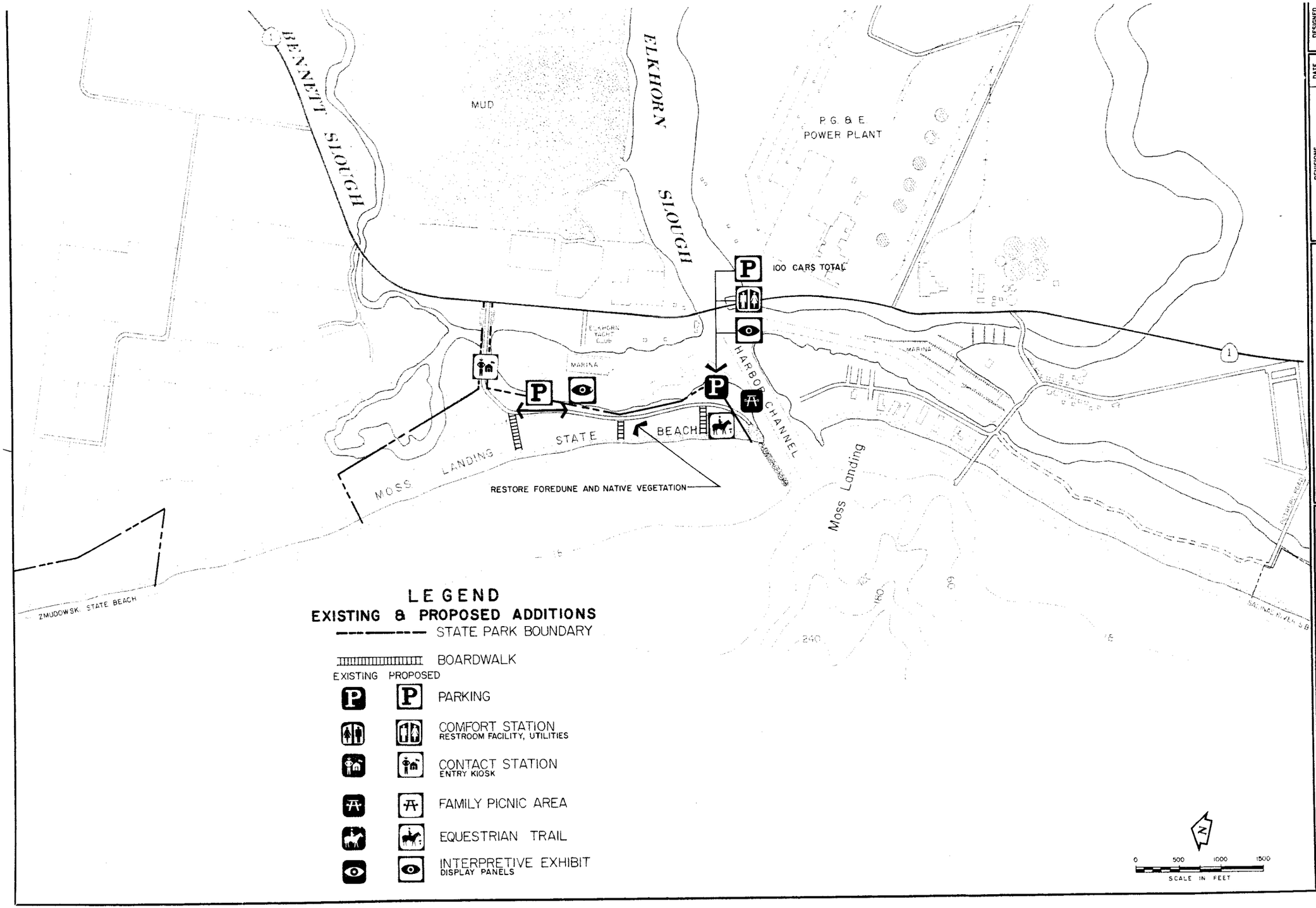
Monterey County, California, North County Land Use Plan, Local Coastal Program, June 1982.

Pacific Gas & Electric, Moss Landing Power Plant, Moss Landing, California, Ms., 1974.

Silberstein, Mark, Elkhorn Slough National Estuarine Sanctuary, interview with Eileen Hook, August 7, 1986.

United States Army Corps of Engineers, Geomorphology Framework Report, Monterey Bay, Los Angeles District, Planning Division, Coastal Resources Branch, Los Angeles, December 1985.



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REVISIONS | DATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION
STATE PARKS AND RECREATION COMMISSION
APPROVED _____ DATE 8-14-87

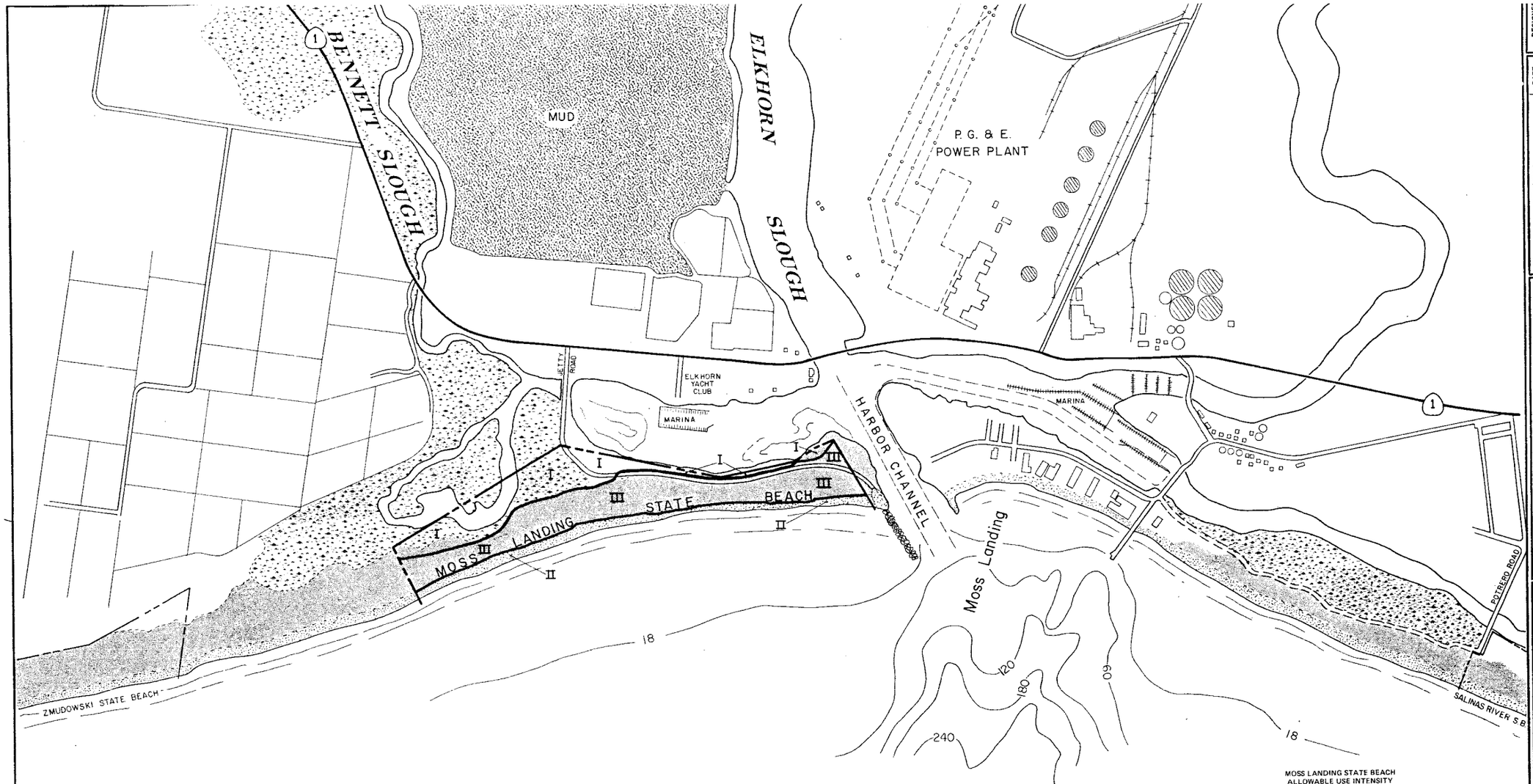
MOSS LANDING STATE BEACH

LAND USE AND FACILITIES

GENERAL PLAN

DRAWING NO. 23036

SHEET NO. — OF —



MOSS LANDING STATE BEACH
ALLOWABLE USE INTENSITY

USE INTENSITY CATEGORY	SITE CHARACTERISTICS	APPROPRIATE FACILITIES
I - LOW	Coastal Salt Marsh	None
II - MODERATE	Sandy Beach	Fire rings, portable restrooms, and picnic sites
III - HIGH	Active Coastal Dunes	Picnic areas, restrooms, and trails. Facilities should occupy less than 10% of the total dune Area in the unit

This map is based on natural, cultural, and scenic constraints and sensitivities. Other factors such as land use, socioeconomic, and design factors may indicate that a higher or lower use intensity is desirable in particular areas. If appropriate mitigations are feasible and can be incorporated in the planning process, higher use intensities may be acceptable

This map is useful only for general planning purposes. Small sensitive resource areas and small areas without constraints are not mapped. Once site specific proposals for land use or facilities have been developed, the proposed location should be checked for resource sensitivity on the various resource maps on file in the Department's Resource Protection Division office. Site specific field investigations may also be necessary

STATE PARK BOUNDARY

N

0 500 1000 1500
SCALE IN FEET

DESIGNED
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REVISIONS | DATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION
APPROVED _____ STATE PARKS AND RECREATION COMMISSION _____ DATE 8-14-87

MOSS LANDING STATE BEACH
ALLOWABLE USE INTENSITY MAP
RESOURCE ELEMENT

DRAWING No.
21394

SHEET No.
— OF —