

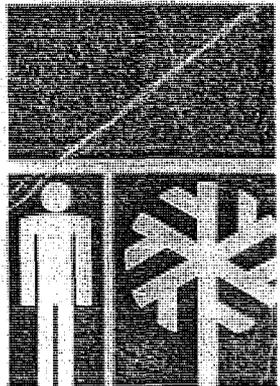
general management plan

volume 1 visitor use / interpretation / general development

january 1985

CHANNEL ISLANDS

NATIONAL PARK / CALIFORNIA



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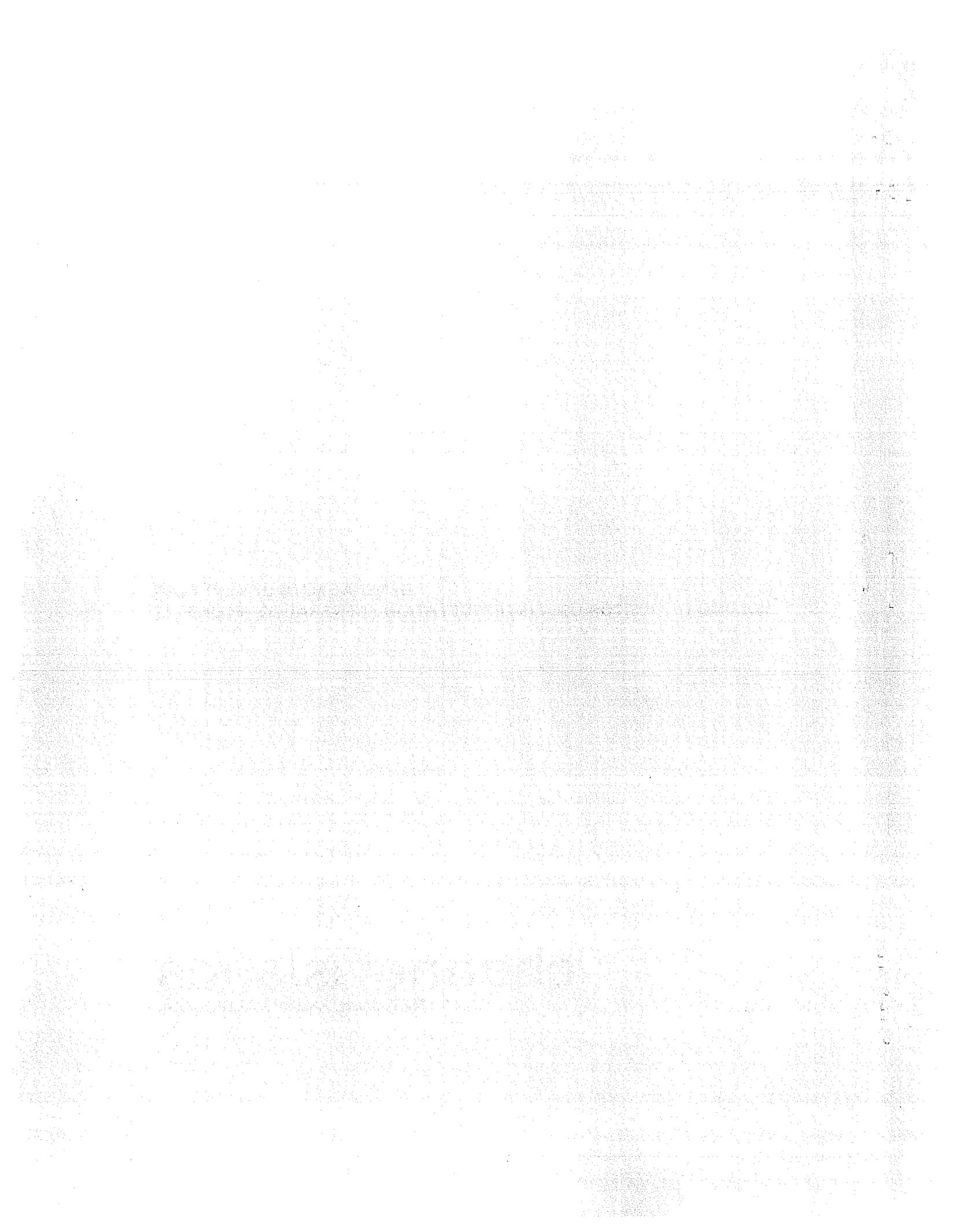
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November 27, 1984

**GENERAL MANAGEMENT PLAN**  
**VOLUME 1 VISITOR USE / INTERPRETATION / GENERAL DEVELOPMENT**

**channel islands**  
NATIONAL PARK / CALIFORNIA



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## INTRODUCTION

This amended General Management Plan incorporates the management strategies for visitor use, interpretation, and development of the 1980 General Management Plan and the 1984 Draft General Management Plan Supplement / Environmental Assessment. The major issues to be resolved by the plan concern the management of natural and cultural resources, the amount of visitor use, and the level of development required to support visitor and management activities. To address these issues, the plan outlines management strategies for the preservation and restoration of natural ecosystems; the reduction or elimination of exotic species; the protection of rare, threatened, endangered, or special status species; and the preservation of archeological and historical features. Visitor use will be based on limited entry and low-intensity use principles, with minimal development on the park islands and an emphasis on personal interpretive services. The plan also recommends management actions to the California Department of Fish and Game for waters within 1 nautical mile of all five park islands. The plan provides direction for visitor use, interpretation, and general development for the next five to 10 years.

A second volume of the General Management Plan that was completed in 1980 addresses management strategies for natural and cultural resources, focusing particularly on Anacapa, San Miguel, and Santa Barbara islands. This portion of the plan has not yet been amended. A comprehensive resource management plan for eastern Santa Cruz and Santa Rosa islands must await extensive research and monitoring. An initial although limited inventory of terrestrial and marine resources has been prepared, and basic research objectives have been established. An overview of resource management strategies is provided in this document.

Extensive work will be required before either Santa Rosa or eastern Santa Cruz can be opened to public use. Foremost is the need to complete acquisition of the private lands, or at least to negotiate minimum rights for research and public use. To achieve this, a Land Protection Plan that is sensitive to the rights of the present owners has been prepared (NPS 1984). The recommendations of that plan, however, may require considerable time to implement because of negotiations and limited funding for acquisition. Once acquisition has been completed, National Park Service (NPS) personnel will have to become thoroughly familiar with the islands, and critical resource management actions will have to be implemented. Visitor facilities will have to be designed, and funding for improvements will undoubtedly occur over several years. This approach will allow each proposed action to be reevaluated before it is implemented.

Overall, visitors will experience a wilderness-like park where they may explore on their own the diverse resources of the islands and surrounding waters. Campgrounds and backcountry campsites will be available, but capacities will be limited. Overnight visitors (and any visitors on San Miguel Island) will be required to first obtain permits through park headquarters or the island ranger stations. Exploration of park waters and shorelines will remain a major visitor activity.

Visitor use will generally be restricted to small developed areas and existing trails. Park rangers will have to accompany visitors in locations with especially fragile resources. Some areas will be closed to all visitor use to protect sensitive resources or to allow for vegetation recovery, and some areas may be closed seasonally.

Existing facilities will be used where feasible. Although many of the structures on eastern Santa Cruz and Santa Rosa appear to be in good condition and could be adapted for use at relatively modest cost, others are deteriorating. Because it may take a long time to acquire these private lands, the condition of structures when they are actually acquired will determine whether they can be adaptively used or whether new facilities will be needed. New ranger stations/visitor contact facilities will be required on San Miguel and Santa Barbara.

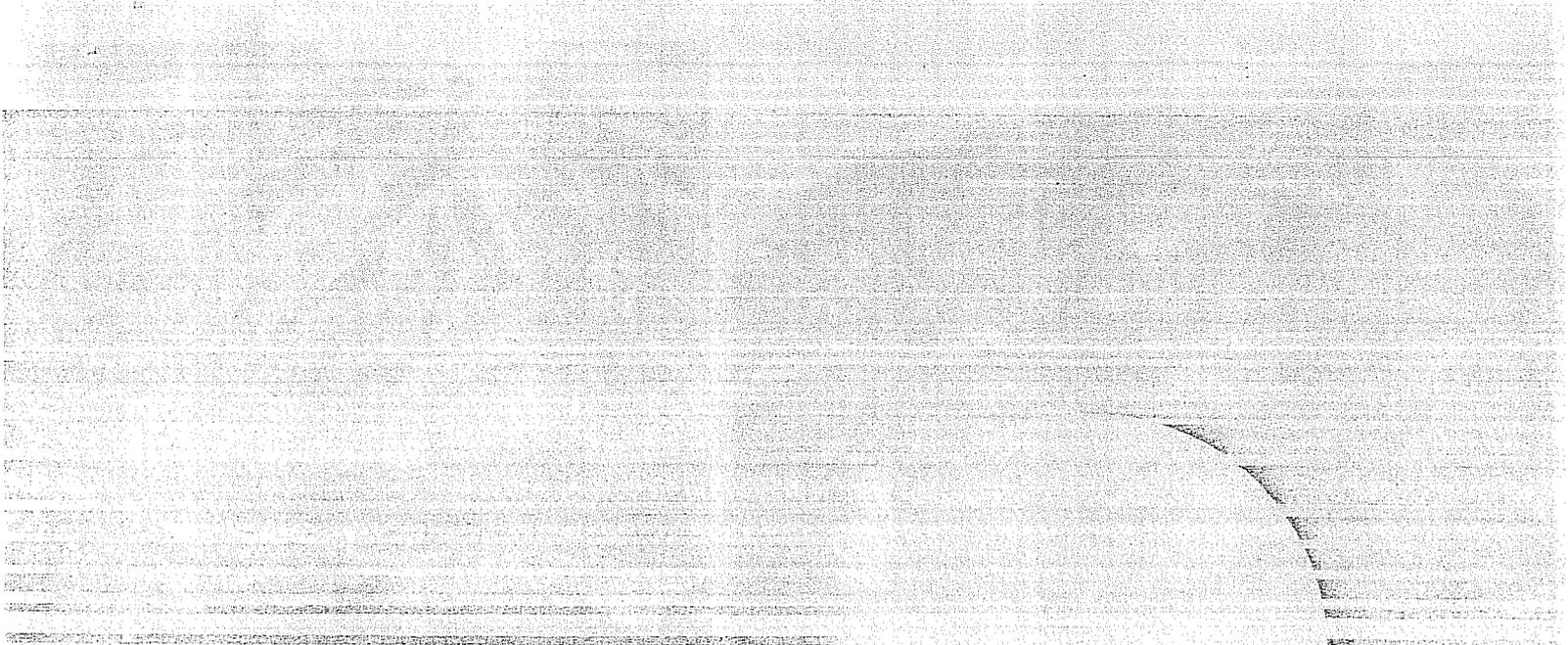
Orientation programs for visitors will continue to be given at the park visitor center in Ventura Harbor. In-depth interpretive programs, focusing on the park's unique natural and cultural resources, will take place on each island. Interpretive programs will rely on personal services by NPS staff on the islands and other trained personnel. Increased contacts with boaters in park waters will also be emphasized. Publications will supplement the on-site interpretation. Interpretive wayside exhibits will be installed in a few areas of special significance.

Extensive resource monitoring programs will be undertaken, and employees will be trained to recognize potential threats to resources so that adverse effects can be prevented or minimized. Although the park will be managed for the restoration and preservation of natural biotic associations, a return to near-natural conditions may take many years. Therefore, formal wilderness studies will be deferred until active restoration efforts have been completed for all park lands, even though some areas now meet the basic wilderness criteria.

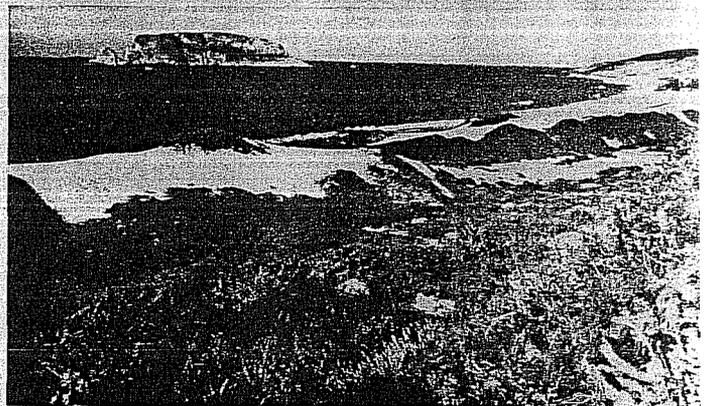
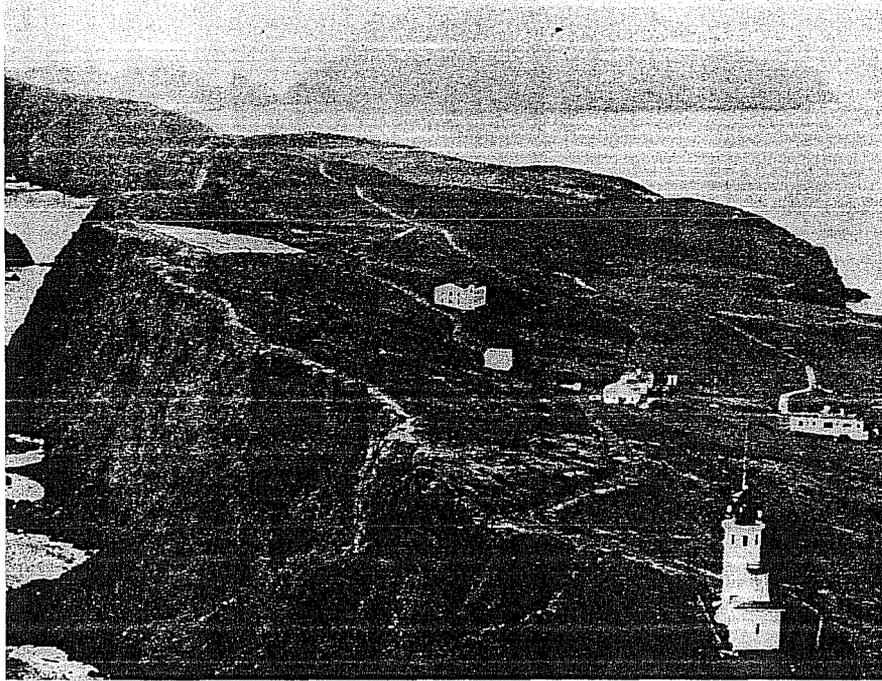
Marine resource management recommendations to the California Department of Fish and Game will emphasize the perpetuation of species diversity and balanced ecosystems. The National Park Service will encourage the Department of Fish and Game to seek state designation of ecological reserves around Santa Cruz and Santa Rosa, the same as are established around the other three park islands. Such designation will be a management tool to help ensure the perpetuation of marine resources. Interpretive and educational programs for marine ecosystems will be expanded to foster a greater appreciation of these unique resources.

This General Management Plan recognizes that changes, particularly in visitor use patterns, may occur. However, the plan is based on sound resource management principles that will be revised only as a result of new research. In cases where resource preservation objectives conflict with public use, protection of the resources will take precedence.

Pertinent legislation, executive orders, NPS policies, and management objectives have guided the development of this plan, along with the desires of the general public. The management objectives describe the conditions that will be eventually realized in Channel Islands National Park (see appendix B), and this General Management Plan describes how these objectives will be achieved.



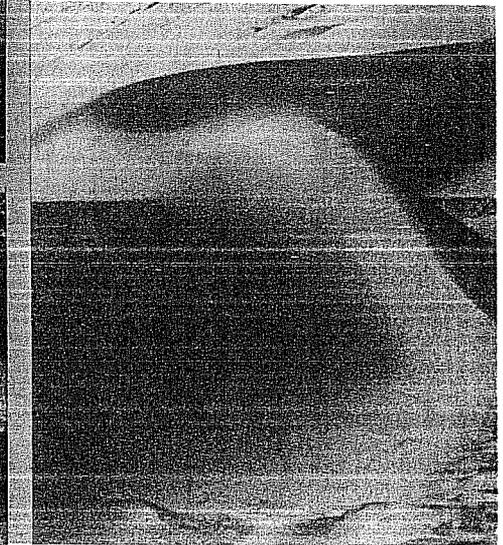
the channel islands:  
significance, existing use, and cooperative management



## PARK SIGNIFICANCE

The Channel Islands are recognized locally, nationally, and internationally as areas of exceptional scientific value with irreplaceable cultural resources, notable geological and paleontological features, and plant and animal communities that have evolved in a unique manner because of their isolation from the mainland. The waters surrounding the islands contain one of the most diverse and productive marine ecosystems in the world.

The establishment of Channel Islands National Park in 1980 was a milestone in protecting this remarkable environment. This action achieved a goal of nature lovers, scientists, conservationists, and the National Park Service since before Anacapa and Santa Barbara islands were set aside as a national monument in 1938.



The designation of Channel Islands National Marine Sanctuary by Congress in 1980 helped ensure the protection of marine ecosystems. Encompassing approximately 1,252 square nautical miles, the sanctuary includes a variety of nearshore habitats and unique marine resources characteristic of the Southern California Bight.

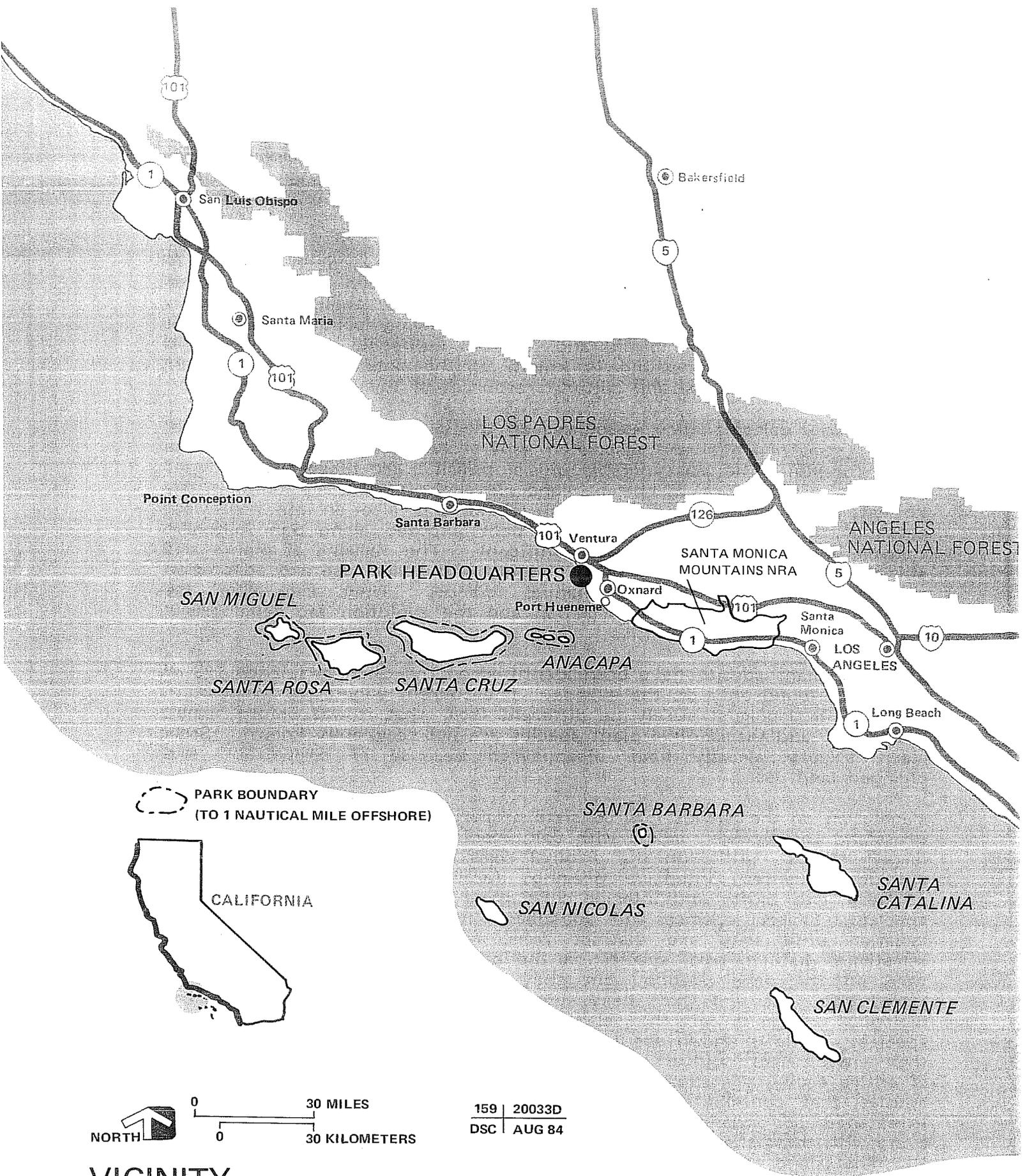
The state of California has designated the waters around the islands out to the 300-foot isobath or 1 mile, whichever is greater, as an area of special biological significance because of "biological communities of such extraordinary even though unquantifiable value that no acceptable risk of change in their environment as a result of man's activities can be entertained." The state-owned waters surrounding the islands have been established as an oil and gas sanctuary, administered by the California State Lands Commission. This sanctuary prohibits oil and gas development in these critical offshore areas. In addition, the waters within 1 nautical mile of Anacapa, Santa Barbara, and San Miguel islands are designated as state ecological reserves, managed by the California Department of Fish and Game.

Anacapa and Santa Barbara islands have also been designated as international biosphere reserves by the United Nations Educational, Scientific, and Cultural Organization. Biosphere reserves represent various ecotypes around the world in which the primary objectives are conservation of genetic diversity, preservation of an area in which to carry on baseline environmental research and monitoring, and education and interpretation. Consequently, information gained through research and monitoring proposed in this plan will have international applicability as part of this biosphere program.

## LAND RESOURCES

The eight Channel Islands are ridges on the continental shelf off the coast of southern California between Point Conception and the U.S.-Mexican border. The northern islands--Anacapa, Santa Cruz, Santa Rosa, and San Miguel--roughly parallel the coast of Santa Barbara and Ventura counties. The southern islands--Santa Barbara, San Nicolas, Santa Catalina, and San Clemente--are scattered between Los Angeles and San Diego. The northern group of islands is geologically similar to and may represent a seaward extension of the Santa Monica Mountains. Whether the islands were ever connected to the mainland is still under study, but there is no indication that they were linked in recent geologic times.

Classified as semiarid, the climate of the Channel Islands is similar to that of the southern California coast, with the islands having more fog and overcast weather and somewhat more moderate year-round temperatures. Precipitation occurs principally between November and March and is heaviest in January and February; virtually no rain falls from May to October. Weather conditions influence safety and visitor use patterns on the islands. Coves and harbors that are protected from the prevailing northwest winds offer relatively safe anchorages for boaters during all but the strongest storms; however, only a very few coves (mostly around Santa Cruz Island) offer protection during the offshore Santa Ana winds.



## VICINITY

**CHANNEL ISLANDS NATIONAL PARK**  
 UNITED STATES DEPARTMENT OF THE INTERIOR  
 NATIONAL PARK SERVICE

The climate has helped shape not only the topography of the islands, but also the evolution of plant and animal communities. For example, winds have resulted in remarkable eolian landforms on San Miguel and Santa Rosa, and seasonal variations in rainfall have resulted in variations in plant communities and subsequently animal communities.

Clear air is a very important attribute of the park. When fog lifts to allow views, the scenic resources and vistas of rocky coastlines, other islands, and the mainland are outstanding. The air quality is generally excellent except when the Santa Ana winds bring pollutants from the urbanized Los Angeles basin and coastal California in October and November. Little or nothing is known of the potential effects of air pollutants on the natural and cultural resources of the islands.

The primary paleontological resources on the islands are plant and animal fossils (some of which are associated with archeological sites) and caliche fossil forests. The most notable animal remains are those of the dwarf mammoth, a small form of the mainland mammoth; fossils are found in the largest concentration on San Miguel Island and also on the northwest coast of Santa Rosa. Mollusk fossil beds exposed along San Augustin Canyon on Santa Rosa are also significant. The remains of plants and animals at archeological sites offer insights into human use and adaptation to the environment of the Channel Islands. They also offer the opportunity to study animal speciation and the evolution and development of plant and animal communities.

Some 240 plant species have been identified on the Channel Islands, 23 of which are found only on the islands. The current vegetative composition and distribution must surely be different from what it was before human habitation, and the original plant species are not completely known. Some elements may already have disappeared because of competition and changed land use.

Vegetation on the islands now consists primarily of coastal sage scrub and grassland communities, mixed with oak woodlands and pine stands on the larger islands. Although the original communities have been altered by outside influences (intensive grazing, farming, introduction of exotic species), sea bluffs and interior cliffs have provided refuges for native species. Several species and subspecies have evolved as a result of isolation until they are distinct from species on the mainland and sometimes distinct from species on the other islands. Some plants are rare on the park islands, but they may have a wider distribution elsewhere. The fact that these species are present at all adds to the biological diversity of the islands and the genetic diversity of the species. Little is known about the interrelationship between these plants, their environment, and other organisms in the vicinity. The preservation of entire ecosystems appears essential to ensure the survival of individual species that contribute to that system. (Species that are listed as threatened or endangered under the federal Endangered Species Act, along with those that are candidates for listing, are identified in appendix C. The island oak, formerly a candidate species, has been removed from the federal list, but it is considered a species of special status by the National Park Service because of its limited reproduction.)

The number of native animal species is lower on the Channel Islands than the mainland, but many of the island species have evolved to unique subspecies. Invertebrates, amphibians, reptiles, birds, and mammals are all represented by endemic species, and the remnants of the original vegetative communities provide significant habitat for native bird and animal species.

The species composition of birds on the islands has changed as new mainland species invade, habitats change, competitive or predator species arrive or become extinct, or areas are disturbed by man. The most distinctive bird subspecies on all of the islands is the Santa Cruz scrub jay, whose brilliant blue color pattern and some behavioral traits clearly distinguish it from mainland scrub jays. Ten bird species on Santa Cruz show evolution to subspecies status, nine on Santa Rosa, and one on San Miguel. Historically, the endangered bald eagle and peregrine falcon nested on the islands, and both species are still occasionally recorded as birds of passage. If the appropriate habitats on any of the islands remain protected or are restored to earlier conditions, breeding populations of these species may become naturally reestablished or successfully reintroduced.

Endemic mammal species include the island fox, which has evolved to a different subspecies on the three larger park islands, and the deer mouse.

### Anacapa

Anacapa consists of three small islets connected by narrow reefs. Totalling about 700 acres, the islets are generally less than half a mile wide and altogether about 5 miles long. Perpendicular cliffs along the shore rise to 250 feet. Most of West Anacapa has been set aside as a research natural area for California brown pelicans. East Anacapa is the most developed of the park islands, and the U.S. Coast Guard continues to operate a lighthouse and foghorn on the island. Anacapa is particularly noted for spring wildflower displays, tidepools, and seabird rookeries. Perhaps the best known feature is the freestanding arch at the island's eastern end. In relationship to the size of the island, its vegetation is the most pristine of all the Channel Islands.

### Santa Cruz

Santa Cruz is the largest of the Channel Islands, with 60,645 acres. Its terrain is diverse, with an elongated east-west axis dominating its topography. A central fault line is paralleled by an inland valley on the western two-thirds of the island. The eastern peninsula, including the portion to be acquired by the National Park Service, lies completely to the north of the fault and is in a sense geologically separate from the rest of the island. Since the late 1800s the island has been used for ranching operations. Initially, the entire island was a sheep ranch; currently, cattle are run on the western portion and sheep on the eastern portion. Large numbers of feral sheep, however, roam the entire island. Sheep ranching was discontinued in 1984 on the eastern end, and a

hunting program was initiated by the owners. Grazing by cattle and particularly by sheep has resulted in significant changes to the vegetation, although some areas shelter extremely attractive groves of ironwood, oak woodlands, and other tree species. Various stream bottoms contain characteristic riparian vegetation. However, there is virtually no new growth due to overgrazing. These forested patches provide significant habitat for associated bird and mammal species, which otherwise might be eliminated from the island altogether.

### Santa Rosa

Santa Rosa, at 52,794 acres, is the second largest of the Channel Islands and represents some 44 percent of the park's total land area and 78 percent of the lands to be managed by the National Park Service. Santa Rosa is generally less rugged than Santa Cruz. A major fault trends east-west across the center of the island, forming a predominant single ridge reaching 1,589 feet at its highest point. Pleistocene terrace deposits are evident near the coast, and numerous canyons cut through extensive fossil beds. Wind-formed dunes and weathered cliffs, as well as water-eroded canyons and hillsides, are common. The story of Santa Rosa's plant and animal resources is a complex picture of unique island forms interacting with various exotic species introduced over the last 150 years. Large portions of the island are now in grassland, and many tree and shrub species are restricted to small refuges where local topography prevents grazing. Cattle now graze extensively all over the island. The limited Torrey pine stands near Bechers Bay are of special concern. The stands are apparently in fairly good condition, and even expanding, but the total area is still very small (about 40 acres) considering that the only other place this species occurs naturally is on a small area of the mainland north of San Diego. Other species of concern are the endemic island oak (occurs individually and in a few small stands on Soledad Mountain where no reproduction is apparently taking place) and the ironwood tree (in small single-species groves where reproduction seems to be minimal).

### San Miguel

The westernmost of the northern islands, San Miguel is about 8 miles long and 4 miles wide. Along with Prince Island, it covers slightly less than 10,000 acres. The island is generally a plateau rising 400 to 500 feet above sea level; it has two prominent rounded peaks and is dissected by deeply eroded ravines. Wind-driven sand covers large portions of the island, which is recovering from past overgrazing by sheep. The 24-mile shoreline consists of sandy beaches, rocky bluffs, and a few sheltered coves and pocket beaches. The island is a major marine mammal rookery and haulout area, and Prince Island is a significant seabird rookery. Fog and strong winds are common. San Miguel has been used for ranching, missile tracking, and as a bombing range. During World War II, the island was manned as an observation post.

Three major fossil caliche forests (rhizoconcretions) are found on San Miguel. These fossils are the caliche-encrusted casts of vegetation buried

by sand dunes more than 14,000 years ago. Later the wind moved the sand and left "forests" of sand molds standing above the surface. These unusual deposits are among the most interesting and fragile of the geologic features of San Miguel's landscape.

### Santa Barbara

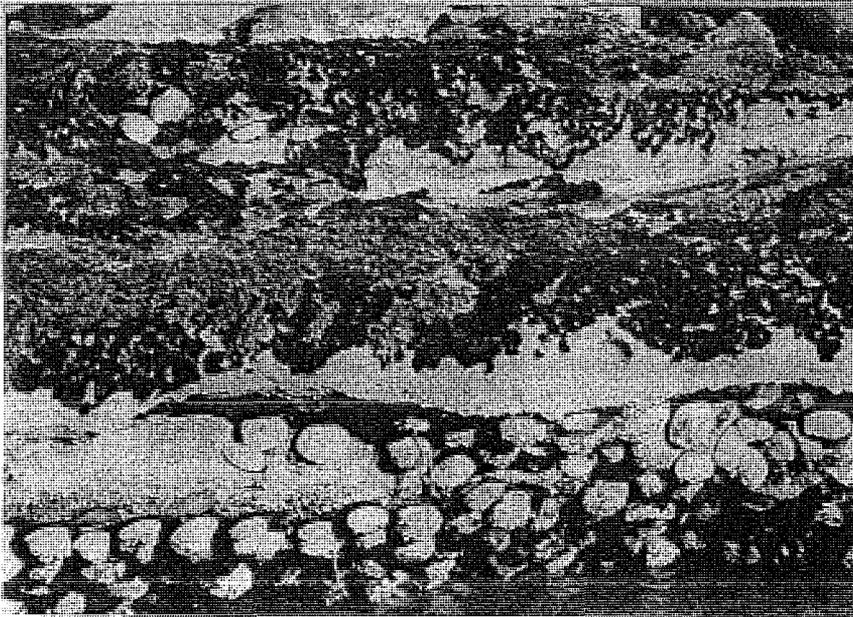
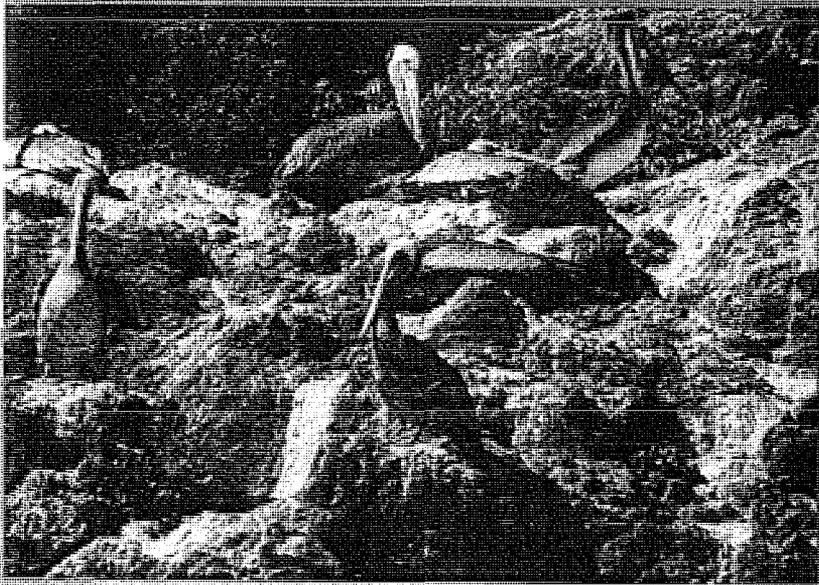
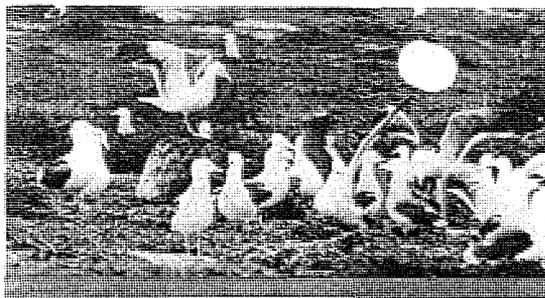
Santa Barbara is the smallest of the Channel Islands. It is roughly triangular in shape, 1½ miles long and 1 mile at its widest. The island and the associated islets total about 650 acres and are edged by vertical cliffs. The island is barren of trees or large shrubs except in the few canyons. There are several sensitive habitat areas, including pinniped haulout areas, rookeries, and stands of giant coreopsis.

### MARINE RESOURCES

The richness of the marine areas around the Channel Islands is due to their location in a transitional area between California's northern and southern marine flora and fauna (Point Conception, 23 miles north of San Miguel, is considered to be the dividing line). San Miguel and San Nicolas islands are influenced by the cold water of the southward flowing California current, which supports more northern species, while San Clemente, Santa Catalina, and Santa Barbara have predominantly southern species influenced by the warm water of the California countercurrent. Anacapa, Santa Cruz, and Santa Rosa islands have mixtures of both northern and southern life-forms. The blending of these two currents creates conditions to support a great diversity of life. Upwelling of the cold northern waters brings nutrients into the more temperate waters to help support some 200 species of finfish, over 150 species of shellfish, and more than 30 species of marine mammals.

The tidal and offshore areas of the Channel Islands contain most of the remaining relatively undisturbed marine assemblages in the southern California region. The coastlines of the islands are composed mainly of rocky shorelines and precipitous headlands that define isolated stretches of broad sandy or cobble beaches. Compared to mainland coastal communities, which have been disturbed by man's influence and intensive development, island coastal communities are virtually untouched. Rich, undisturbed tide pools surround many of the islands, their species diversity and abundance unparalleled on the mainland coast.

Just outside the intertidal zone of the islands, typical southern California kelp forests lie in water 20 to 50 feet deep. Seasonally variable in extent, these forests are an incredible ecosystem in which over 800 species of plants and animals are known to occur. Kelp and marine algae provide subtidal habitat for fish and invertebrates that feed, reproduce, and hide from predators in the canopy. The kelp as primary producers are intricately connected not only to the forest ecosystem itself but also to surrounding rocky bottom communities and to more visible life forms such as seabirds, seals, and sea lions. Santa Barbara Island is surrounded by especially dense and extensive kelp beds.



Biological diversity is further enhanced by the varied relief and bottom conditions. The islands are surrounded by relatively shallow shelves that may extend several miles offshore; the bottom then begins to slope steeply to depths of over 2,500 feet. The island shelves vary from shallow, sandy flats to soft, muddy trenches and canyons. The Santa Rosa-Cortez Ridge, which extends southward from the island, has been identified as a major feeding ground for pinnipeds, seabirds, and cetaceans. In addition, this ridge supports an extraordinary number of marine invertebrates and vertebrates.

The intertidal and shallow subtidal zones around the islands show little exploitation, particularly around Santa Rosa and Santa Cruz.

### Marine Mammals

The islands and their offshore waters are a haven for many species of marine mammals. Waters surrounding the Channel Islands and Santa Barbara Channel are used by as many as 20 species of cetaceans (whales and porpoises). Recent observations off southern Santa Rosa and San Miguel islands suggest that these waters are either newly utilized or are a previously unknown migration pathway for several large species of whales, including humpback, blue, finback, and sei. A number of these whale species are on the federal list of threatened and endangered species, as designated by the U. S. Fish and Wildlife Service.

Although pinnipeds (seals and sea lions) historically bred in great numbers along the southern California mainland coast, today they breed and pup almost exclusively on the Channel Islands. The California sea lion has established breeding colonies on most of the islands, but only occasional births are reported on some. Based on current rates of population growth and continued protection from disturbance, breeding success is expected to increase. South of Point Conception, Steller's sea lions are found only on San Miguel. Their numbers continue to decline; however, should this trend reverse, it is expected that historic rookeries and haulouts on San Miguel, Santa Rosa, and Santa Cruz would be among the first areas to be recolonized.

The northern elephant seal, once almost extinct, is now found on San Miguel, San Nicolas, Santa Barbara, and San Clemente islands and occasionally on Santa Rosa. The population growth of this species remains rapid, and the potential for occupation of the many deserted beaches on Santa Rosa is good. Harbor seals are found on all the islands. The only breeding colony of northern fur seals in the eastern Pacific south of Alaska's Pribilof Islands was discovered on San Miguel Island almost two decades ago. Since then, the population has become fairly well established. The Guadalupe fur seal, on the California list of rare and endangered species, visits San Miguel and San Nicolas islands. At present the population is nonbreeding; however, remains of this species in prehistoric Chumash kitchen middens suggest that the seals formerly bred on the islands. These two islands are the only areas outside Mexican waters where this seal is now known to haul out.

San Miguel is the only island where six pinniped species are found together--more species than at any other single location in the world. The island's isolation, climate, low sandy beaches, and proximity to deep feeding grounds on the edge of the continental shelf make it an ideal environment for pinnipeds, encouraging both northern and southern species. The Point Bennett area in particular has a very large population and is one of the world's outstanding wildlife displays. San Nicolas has the second largest haulout grounds for pinnipeds and hosts four species. Santa Barbara has the third largest haulout area.

### Sea Otters

Sea otters inhabited kelp beds surrounding the Channel Islands until their local extermination by commercial hunters in the early 1800s. Since their rediscovery off central California in 1938, the population has been increasing and their range extending. If this trend continues, natural repopulation of the kelp beds off the Channel Islands may occur. Currently, the U.S. Fish and Wildlife Service is exploring the possibility of reintroducing the sea otter to San Nicolas Island.

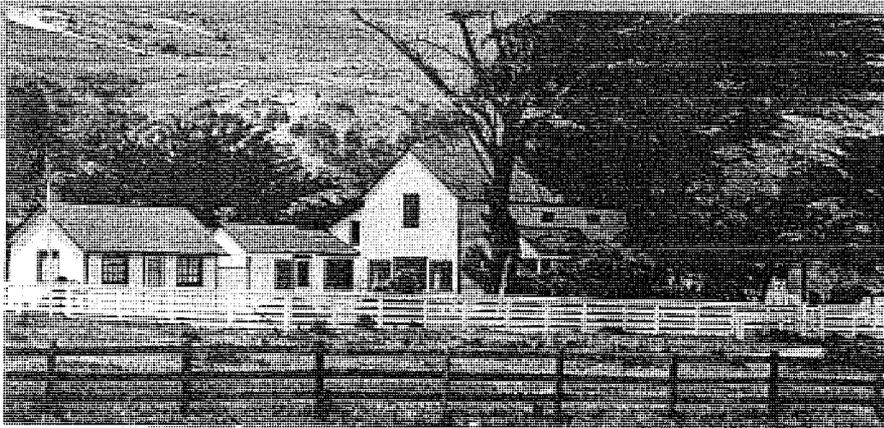
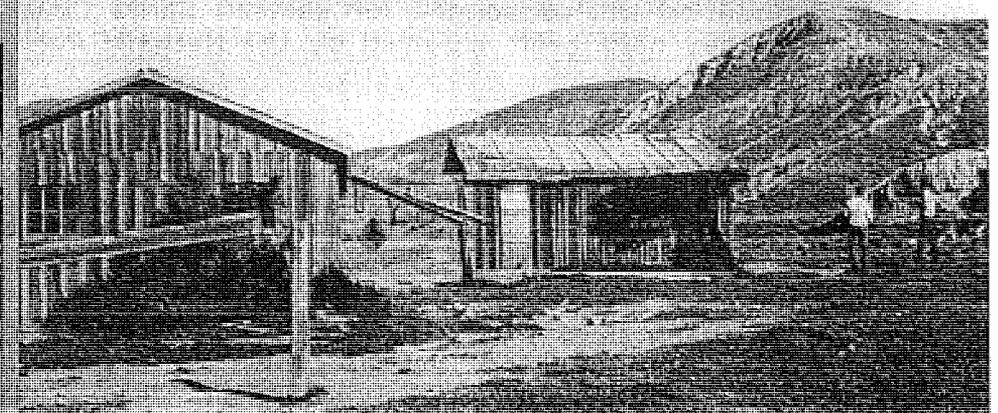
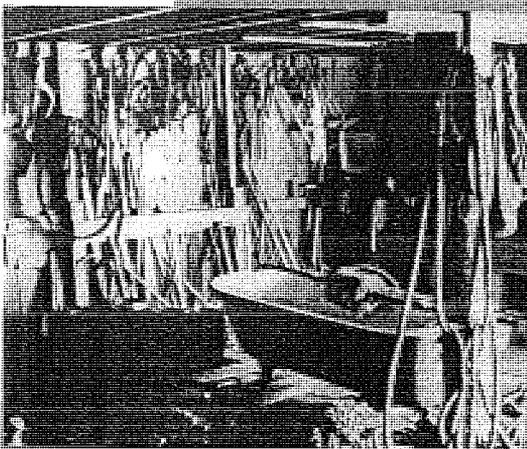
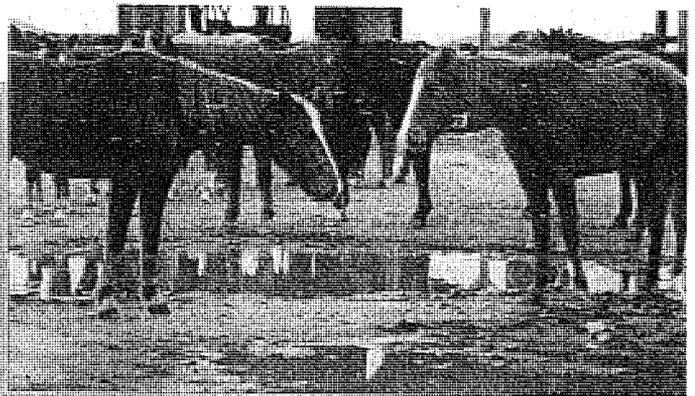
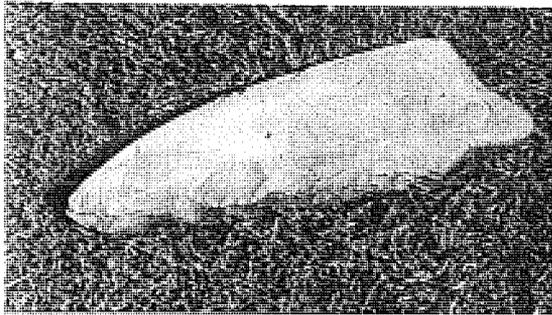
### Seabirds

The Channel Islands are important breeding and resting areas for a variety of seabirds, and collectively they constitute a major breeding ground of the eastern Pacific south of Alaska. Species include western gull; double-crested, Brandt's, and pelagic cormorants; black oyster-catcher; snowy plover; pigeon guillemot; ashy, black, and Leach's storm petrels; Cassin's auklet; Xantus's murrelet; and California brown pelican. While the mainland may provide roosting areas, in many cases these seabirds depend on the islands for breeding and nesting sites.

The nesting birds now found on the islands are remnants of much larger populations. Each island contains major seabird rookeries, with various species using different islands. Especially important are rookeries on Santa Barbara and Prince islands. The endangered California brown pelican breeds primarily on West Anacapa and feeds in the surrounding waters. A small colony is attempting to reestablish on Santa Barbara Island, and individuals occasionally breed on Scorpion Rocks off eastern Santa Cruz, although no successful nesting has been reported since 1975. The osprey also nested on the islands until a few years ago. Protection of the Channel Islands breeding areas and surrounding waters that provide for foraging is essential to the survival of these species.

### CULTURAL RESOURCES

The cultural features of Channel Islands National Park include evidence of pre-European inhabitants, Spanish exploration, maritime history and exploration, national defense facilities, and a long and continuing tradition of cattle and sheep ranching. The isolation of the islands gave the original human inhabitants a relatively long period of freedom from disturbance, and as a result the archeological record is almost intact.



Investigation of the sequentially complete archeological resources may be one of the last opportunities in California to understand the nature of the state's earliest inhabitants and their relationship to available resources. However, the vegetation pattern, soils, and probably the basic hydrological regime are no longer naturally controlled, so the relationships that might have existed between early Indians and forest and water resources may be obscured.

Although some sites are threatened by indiscriminate collecting and by both natural and man-induced erosion, the islands individually and collectively provide an excellent opportunity for archeological research because of their finite territory and concentration of resources. Currently, Anacapa, San Miguel, and Santa Barbara islands are listed on the National Register of Historic Places as archeological districts; similar designation will be sought for eastern Santa Cruz and Santa Rosa islands once they have been acquired by the National Park Service.

### Prehistory

The northern Channel Islands were a very important area in the development of coastal California Indian cultures. Limited and still controversial evidence suggests that Santa Rosa Island may have been occupied 30,000 to 40,000 years ago (Orr and Berger 1966), and several researchers have confirmed that the islands have been occupied for at least 6,000 to 8,000 years. Most of the islands were continuously occupied by Chumash Indians from the time of European contact in the 16th century to the early part of the 19th century. The Chumash and their predecessors apparently developed a close relationship with the sea, finding efficient ways of using their marine surroundings, which involved collection of shellfish (especially abalone), fishing, and seasonal exploitation of breeding pinnipeds and seabirds. They also were seemingly able to develop a peaceful society because of the isolation of the islands; this is evidenced by the fact that weapons found on the mainland are generally absent on the islands.

The size and diversity of Santa Cruz and Santa Rosa islands probably provided prehistoric inhabitants with a greater variety and abundance of terrestrial resources than any of the other northern Channel Islands. The total aboriginal population on Santa Cruz has been estimated at 900 to 1,450, and on Santa Rosa 600 to 1,000. Main village sites and smaller temporary locations possibly used seasonally have been found. San Miguel, Anacapa, and Santa Barbara islands were apparently used on a seasonal basis.

### History

The European era history of the Channel Islands began with Cabrillo's voyage of discovery in 1542-43. Cabrillo and his three ships may have wintered that year at Santa Rosa, and Cabrillo may well have died and been buried on Santa Rosa rather than on San Miguel. During the next 250 years little other European contact is recorded. By the early 1800s, the Spanish mission system was established on the mainland, and the

Indians were beginning to be integrated into that system. The Indian population was gradually reduced by disease, and the remaining Indians were moved to missions on the mainland by 1835.

The fur trade in California's waters, especially for seals and sea otters, lasted from the late 1700s through the 1840s, and the Channel Islands were a primary area. Russian and American traders brought Alaskan natives to hunt off the island shores, a combination that contributed to the near extinction of the otter and seal populations. Santa Rosa was the base for a sea otter operation about 1835 (otter hunter George Nidever and his men used a cave as a refuge from attack by "northwest" Indians).

When the marine mammals were nearly gone, commercial activity on the islands shifted to the raising of sheep, and just prior to 1850 cattle were introduced. The success and failure of the various operations parallel the general history of Spanish California and the early American period.

#### Submerged Cultural Resources

Numerous prehistoric and historic cultural resources are known to exist in the shallow waters around the islands. Recent shipwrecks, including the Winfield Scott and Crown of England, are obvious. Other wrecks, remains of former piers and navigational aids, and aboriginal artifacts such as massive stone bowls have been reported. These resources are currently under state jurisdiction and may be subject to private salvage under existing state regulations. Regulations relating to national marine sanctuaries, however, prohibit removal of or damage to any historic or archeological resource within sanctuary boundaries.

For a more detailed description of all park resources, see volume 2 of the 1980 General Management Plan, the 1982 "Biennial Natural Resources Study Report," and the 1984 Draft General Management Plan Supplement/Environmental Assessment.

#### POTENTIAL THREATS TO PARK RESOURCES

The fisheries, kelp, and petroleum industries in southern California depend on the region's unique and irreplaceable offshore resources. These industries, as well as military activities, ranching, recreational use, energy production, shipping and boat terminal facilities, and even the space program, could threaten the sensitive natural and cultural resources of the Channel Islands. Potential effects on offshore resources are discussed below; actions to mitigate adverse effects of threats are discussed in volume II of this plan and in the 1982 "Biennial Natural Resources Study Report."

#### Recreational Use

As more people learn about the Channel Islands and numbers of boaters increase, the threat to island resources from recreational use could

intensify. The recreational potential of the California mainland coastline has probably been realized, but this has caused wholesale disturbance of natural values in large areas. Developing the recreational potential of the islands without jeopardizing their natural values is the most difficult management problem now confronting the National Park Service and other concerned agencies.

#### Harvest of Marine Resources

The offshore islands are heavily fished by sport and commercial fishermen. Sport divers search for the highly prized spiny lobster, rock scallop, and abalone, while commercial fishermen harvest lobsters, sea urchins, and abalone. The demand for high-yield fishing areas such as those found off the islands is great. Although regulated fishing activity on a sustained yield basis may be compatible with preservation objectives in some areas, the resources of other areas are apparently being severely depleted. In some instances secondary effects may threaten other species. For example, the endangered California brown pelican is dependent on anchovies and mackerel and could be threatened by a reduction in the anchovy population. Currently, many of the marine resources of the area may not be sufficiently monitored to ensure adequate reserves. Biennial updates of the 1982 "Natural Resources Study Report" will further address these issues.

Commercial harvest of kelp and other marine vegetation is a thriving industry in southern California. State management regulations are designed to provide sustainable yields, but there is direct evidence the kelp forest ecosystem may be threatened by such harvest.

Regulations restrict sport and commercial taking of marine species in certain limited areas, but much commercial activity continues. Current information and restrictions that apply in closure zones in the ecological reserves are contained in the California Fish and Game code; the regulations vary considerably from area to area.

#### Offshore Oil and Gas Development

Federal and state lessees are actively exploring and developing southern California coastal oil and gas resources. Federal leasing of offshore lands was initiated in 1963, following 10 years of state leasing of offshore areas. As a result of lease sales in 1966 and 1968, 72 leases were sold in the Santa Barbara Channel. In 1975 the Department of the Interior leased 56 outer continental shelf tracts. At present, 13 oil platforms in federal waters and several additional ones in state waters, as well as an increasing number of exploratory drilling rigs, are located within the Santa Barbara Channel between Oxnard and Gaviota. Lease sale 80 is due to be held in late 1984, and another southern California lease offering is expected in 1986.

Outer continental shelf oil and gas leasing will undoubtedly increase. Although new leases are not being offered within 6 nautical miles of the islands, the environmental protection of the Channel Islands could be

impaired both on- and offshore. Several existing leases still occur within the national marine sanctuary, increasing the possibility for disturbance of island resources. Potential impacts may include disruption of archeological resources and terrestrial biota if any island is used as an onshore staging area; damage to pinniped and seabird rookeries, rocky intertidal areas, kelp beds, and offshore reefs due to oil spills; and disturbance of marine mammals and seabirds because of drilling operations and offshore noise and activity.

### Oil-Tanker Routes

The possibility of major oil spills by tankers in the Santa Barbara Channel and in areas adjacent to the Channel Islands is a considerable concern throughout southern California. Alternative routes for supertankers, well-defined sea lanes, radar monitoring, and an emergency operations plan are measures being considered to reduce any possible adverse impacts. The National Park Service is concerned about tanker routes that would use San Miguel Island as a turning point and would pass close to Santa Barbara Island. These islands represent two significant breeding areas for pinnipeds and seabirds; a shipwreck or oil spill around either would be particularly disastrous. Even though adverse effects to these two islands are of particular concern, all park islands are sanctuaries for marine mammals and birds and deserve the same degree of protection.

### Liquid Natural Gas

Controversy over the importation of liquid natural gas to the United States centers around possible terminal locations and shipping routes that could affect the Channel Islands. Sites on the islands along the Santa Barbara Channel and the nearby mainland have been considered for terminal locations. Use of the islands is precluded by establishment of the national park. However, tankers moving to and from mainland terminal sites add to traffic in the already heavily used Santa Barbara Channel, increasing the possibility of accidents and subsequent damage from spills.

### Military Uses

Past military uses have both protected and threatened the islands. Military ownership has enhanced protection by limiting development, closing the islands to public uses that could have been destructive, and maintaining them under a single owner. However, some military uses have been destructive to resources. For example, the use of San Miguel as a practice bombing range has resulted in bombs falling in areas where archeological sites are concentrated, and undetonated bombs are found occasionally. Fires due to military operations have also altered vegetation and destroyed historic structures. It is probable that many archeological sites were damaged or destroyed when roads and other facilities were developed. The memorandum of agreement between the National Park Service and the U.S. Navy has led to close cooperation in the management

of San Miguel and Prince islands. Although essential national security missions are still permissible, tighter control should minimize the threat to the islands' resources.

#### Space Shuttle Program

The launching and reentering of space shuttle rockets are potential threats to the resources of the islands. A proposed launching path over San Miguel Island could subject the island's resources to overpressures with a force of up to 30 pounds per square foot. This could be disastrous to pinniped populations on Point Bennett, particularly when many young are present. Sonic booms created by both launches and reentries could startle pinnipeds and seabirds and cause stampeding of beached animals and trampling of pups. Strong overpressures during launching could also affect other island resources. Potential effects include nest abandonment by seabirds, collapse of burrows and nests, physiological damage to wildlife, and collapse of geological features such as caliche.

## VISITOR ACCESS AND USE

### ACCESS

Access to the park islands is predominantly by private boat or tour boat. Charter boats from Ventura and other ports can be used to reach any of the park-managed islands, but costs can be high because of the distances involved. Anacapa visitors arrive mostly by tour boat, and Santa Barbara and San Miguel visitors mostly by private boat.

The park concessioner, the Island Packers Company, provides most of the public transportation. Trips to Anacapa are scheduled almost daily throughout the summer and at least on weekends throughout the rest of the year. The trips last all day and give visitors two to three hours to explore the island. On days of low tides trips are made to Frenchy's Cove on East Anacapa, where tide pools can be explored. In summer the company also offers weekly trips to Santa Barbara and occasional trips to San Miguel, and it carries many of the guests for the private Santa Cruz Island Club and for the Nature Conservancy.

It is not known how many private boaters use the anchorages around the park islands, particularly Santa Cruz and Santa Rosa. Surveys have been initiated to determine visitation trends.

Park staff are generally transported to Anacapa and Santa Barbara by NPS boat, but a helicopter is sometimes used for large loads or when sea conditions prohibit boat use. Fixed-wing aircraft carry personnel and heavy loads to San Miguel, where two primitive grass airstrips are used, although an NPS boat is used when possible. Periodic transportation assistance from the U.S. Navy is extremely helpful. Access by air is currently not available to the general public. Organized groups of disabled persons may request permission to visit the islands by helicopter, but once on the islands access to most areas is still limited.

### VISITOR USE

Three major groups of people visit the park: Those who visit only the mainland visitor center, those who visit the islands by means of public transportation, and those who come by private boat.

The visitor center in Ventura Harbor includes a theater, where a short orientation film is shown, and exhibits about the islands. A study of visitors to the center indicates that less than 20 percent will actually get to the islands that are now open to public visitation.

Public visitors are allowed on all of the park-managed islands; limited use is permitted by the private owners on Santa Cruz and Santa Rosa. Visitors are generally interested in recreation--hiking, picnicking, photography, nature study, and camping.

Visitors on private boats sail the island waters, fish and dive, and may make brief visits to the islands. Educational cruises around the islands (including overnight trips) are limited but are increasing in number.

East Anacapa receives the majority of visitor use, primarily because of its proximity to the mainland. Although it is the most developed of the park islands, most of the structures belong to the U.S. Coast Guard (including the foghorn and lighthouse), and minimal facilities are available for visitors. A small visitor center, primitive campground, pit toilets, and picnic tables comprise the visitor facilities. A self-guiding interpretive trail circles the western half of the island and allows visitors to view coves and pinniped haulout areas. An NPS ranger is stationed full-time on the island. Middle Anacapa is only open to visitor use on ranger-guided tours, and there are no formal facilities. On West Anacapa a short trail leads from Frenchy's Cove to tide pools on the south side of the island; the rest of the island is a research natural area and is closed to visitor use.

Because Santa Cruz and Santa Rosa islands are still privately owned, there are no existing NPS facilities for visitors. A temporary ranger station has recently been established at Smugglers Cove on eastern Santa Cruz to protect the resources from vandalism.

Most of the facilities on San Miguel Island are owned by the National Marine Fisheries Service and support their research programs at Point Bennett. A tent ranger station in Nidever Canyon is the only NPS development on the island. Ruins of former ranching structures are still present. A cross-island trail, a former road from Cuyler Harbor to Point Bennett, is the only visitor-related development.

Santa Barbara is virtually undeveloped except for a ranger station/visitor center and a campground at the top of the trail from the landing cove. (The dock structure was destroyed in the 1982-83 winter storms.) A trail system encircles the island and leads visitors to most points of interest.

Over 175,000 people annually are estimated to visit Anacapa, Santa Barbara, and San Miguel, but accurate counts are difficult to obtain because the majority come in private boats. Most recorded visitation is to Anacapa and Santa Barbara; San Miguel has been open to visitors only since summer 1978, and visitation is limited by its distance from the mainland, unpredictable weather, and restrictions set by the U.S. Navy and the National Park Service. Currently, visitors cannot remain on San Miguel overnight, and they must obtain an NPS permit and be accompanied by a ranger when on the island. Landings are permitted only at Cuyler Harbor.

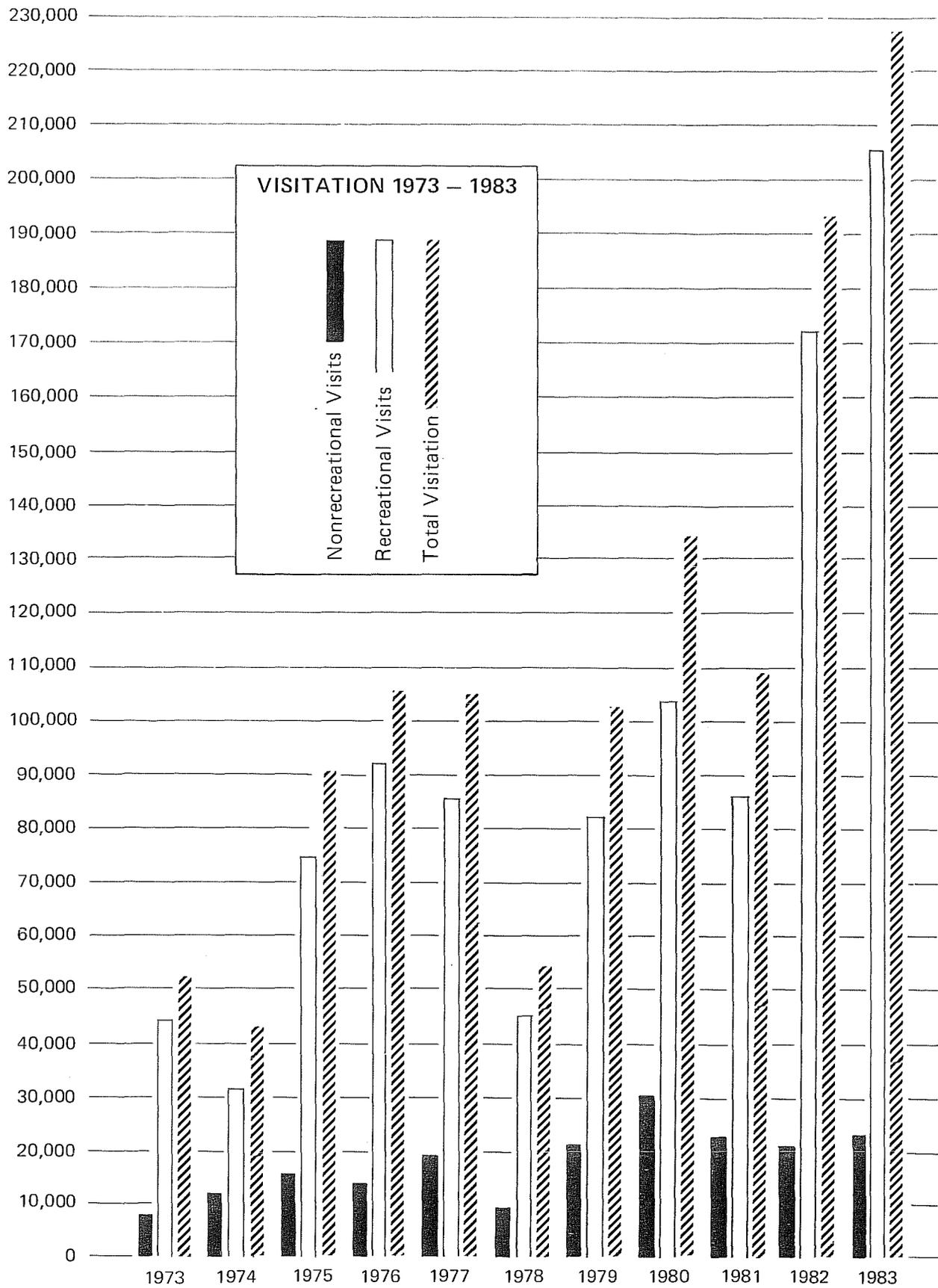
Most visitors to the NPS-managed islands stay less than 12 hours, but campers on Anacapa and Santa Barbara tend to remain two to three days. In 1983 there were 818 campers on Anacapa and 318 on Santa Barbara. All supplies must be carried ashore, including food, fuel, and water.

The Santa Cruz Island Club operates two camps in cooperation with the Santa Cruz Island Company. The club has been in operation since 1966, but it has only recently opened the private hunting camps to general visitation. In winter 1982, 1,000 people visited the island to hunt feral sheep and swine during their four-day stays. In summer 1982 the club hosted 160 general guests at the Christy ranch (no hunting is allowed

during the summer), this increased to 340 guests in 1984. In 1983 the camp at Prisoners Harbor was also opened to general visitation. Approximately 550 people used this camp in summer 1984. A limited four-wheel-drive tour of the interior of Santa Cruz is available to overnight users, and hunters are transported by four-wheel-drive vehicles on both islands. Visitors get to the hunting camps on the west end of Santa Cruz and to Santa Rosa by aircraft and to the camp at Prisoners Harbor by boat. In 1984 the owners of eastern Santa Cruz initiated a hunting program on their property. This is a modest operation, and it is too early to know if it will be an economic success. In 1983 approximately 1,300 persons took day-long boat trips sponsored by the Nature Conservancy to Pelican Bay. On these trips visitors are able to stay about four hours onshore.

### VISITATION TRENDS

Visitation trends are difficult to predict. As the "new" park becomes better known nationally and public use is permitted on Santa Rosa and eastern Santa Cruz, national and international visitation may increase significantly. Visits by people traveling from distant areas are probably limited by the low capacity of the islands now open to public use, the fairly high transportation costs, and the unpredictable weather (which causes cancellation of scheduled and charter trips). Generally, more people want to visit the islands than can be accommodated, and many are turned away because they cannot wait until space is available. Improved transportation services and increased capacities would permit more individuals to reach the islands. If transportation costs could be reduced, there would probably be a significant rise in demand for trips to the islands. The visitation graph shows use trends over the past 11 years.



## COOPERATIVE MANAGEMENT

Channel Islands National Park is unique among most national park system areas in that much of the area managed by the National Park Service is owned or under the jurisdiction of other agencies or private owners. All of East Anacapa, portions of Middle and West Anacapa, and portions of Santa Barbara Island are owned by the U. S. Coast Guard; San Miguel and Prince islands are owned by the U. S. Navy; Santa Cruz and Santa Rosa islands are now privately owned; and all submerged lands are owned by the state of California. Other agencies, while not owners of land, have been designated "lead agencies" in certain resource areas. Although federal landownership will change when eastern Santa Cruz and Santa Rosa are eventually acquired by the Park Service, cooperation with other governmental agencies and private owners will remain an essential element of management.

The relationship between the agencies and the National Park Service has been relatively good; however, the potential exists for conflicts. These agencies have reviewed the various drafts leading to this revised plan, and their comments have been carefully considered; however, consensus is not implied by publication of this plan. The primary management agencies and their current roles with respect to park resources are described below.

### U.S. COAST GUARD

The U.S. Coast Guard owns several portions of, or retains rights on, all the islands for the emplacement of navigational aids. The National Park Service manages these lands for resource preservation and visitor use. It also uses and maintains the structures on East Anacapa, which were formerly part of the U.S. Coast Guard station. Both agencies provide emergency services to boaters, with the Coast Guard having primary responsibility. When possible the U.S. Coast Guard provides support services for the Park Service that help considerably with efficient park management. Although landownership may change, the right to emplace future navigational aids is ensured under existing cooperative agreements and PL 96-199.

### U.S. NAVY

The U.S. Navy currently owns San Miguel and Prince Island but, through a memorandum of agreement (amended 1976), the National Park Service jointly manages the islands. Although day-to-day resource management and protection are under the purview of the Park Service, military activities continue to take precedence over other uses. PL 96-199 recognizes the continuing requirement for essential military missions, and these uses would not be nullified if the land was transferred to the National Park Service. The two agencies cooperate in research activities of mutual interest, and the logistics support provided at various times by U.S. Navy personnel is an important contribution to efficient management

of the islands. Close cooperation between these two agencies will continue.

#### NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

The National Oceanic and Atmospheric Administration is charged with administering Channel Islands National Marine Sanctuary, which encompasses the water area for 6 nautical miles around all of the northern Channel Islands and around Santa Barbara Island. Because the sanctuary boundary overlies state lands and the national park boundary, coordination has increased between the California Department of Fish and Game, the Park Service, and the National Oceanic and Atmospheric Administration. A cooperative agreement between the latter two agencies provides for on-site management of the sanctuary by the Park Service.

#### NATIONAL MARINE FISHERIES SERVICE

The National Marine Fisheries Service enforces laws such as the Fur Seal Treaty Act of 1911 and the Marine Mammal Protection Act of 1972, both of which give it lead agency status for management of all seals, sea lions, sea otters, dolphins, porpoises, and whales. On the park islands, therefore, these animals are cooperatively managed by the Marine Fisheries Service and the Park Service. A memorandum of understanding between the two agencies addresses the review of each other's plans relating to the other's area of responsibility, the use of the NMFS research station on San Miguel, the development of the marine mammal section of the park's resource management plan, cooperation in the enforcement of laws, and the question of commercial pinniped capture within the park as a whole. A third agency, the California Department of Fish and Game, is also involved in managing marine mammals; and close cooperation among the three agencies is essential. It is possible that the state could assume management responsibility for marine mammals from the National Marine Fisheries Service. At this time, however, the state does not assume this responsibility.

#### CALIFORNIA STATE LANDS COMMISSION

The California State Lands Commission has the statutory responsibility to administer and manage the use of the state's tidelands and submerged lands around the park islands (that is, lands between the mean high tide line and seaward 3 miles). Such lands within 1 nautical mile of Santa Barbara, San Miguel, and Anacapa islands have been designated as ecological reserves under the Department of Fish and Game, and such designation will be encouraged around Santa Cruz and Santa Rosa islands as a management tool to help ensure the perpetuation of marine resources. However, the lands commission has retained authority over these areas for oil, gas, geothermal, and other mineral exploration and development under certain conditions (see "Oil and Gas Sanctuary" in vol. 2, Natural/Cultural Resource Management Plan).

The lands commission also has permit authority over dredging, disposal of dredged material, mining, and salvage operations on this land. Coordination between the commission and the National Park Service will occur primarily through contacts with other federal and state agencies.

#### CALIFORNIA DEPARTMENT OF FISH AND GAME

On May 15, 1978, the U. S. Supreme Court held that the state of California--not the federal government--holds dominion over the submerged lands and waters within 1 mile of Santa Barbara and Anacapa islands. NPS regulations concerning sport and commercial fishing and other uses within these waters and submerged lands were voided by this decision. Regulation and enforcement are now the responsibilities of the state of California.

Since 1978 NPS law enforcement rangers have been deputized as state game wardens for the purpose of enforcing state game regulations. PL 96-199 requires the National Park Service to inventory marine resources and to offer advice to the California Department of Fish and Game about their management. The same legislation extends the park's administrative boundary out 1 nautical mile around each of the park islands, facilitating cooperation not only in law enforcement but also in research. Finally, consultation takes place between the park staff and the department regarding wildlife management and, in particular, the state's endangered species program. Several plant and animal species on the islands are currently protected under the state's endangered species act or are being considered for protection.

#### THE NATURE CONSERVANCY

This private organization will retain ownership of approximately 90 percent of Santa Cruz Island. Under the provisions of PL 96-199, the National Park Service is authorized to expend funds for the management of natural and cultural resources and for the provision of visitor services in cooperation with the Nature Conservancy. Although visitor use policies and resource management actions will remain the primary responsibility of the conservancy, close cooperation between this organization and the Park Service is in the best public interest.

#### BUREAU OF LAND MANAGEMENT

Those resources of the U.S. territorial waters that are not managed by the states are managed by the Bureau of Land Management. The bureau was the lead agency in the development of potential natural gas and petroleum lease sales. The Channel Islands region has been part of several lease sales, and baseline biological and cultural information for the entire Southern California Bight has been compiled. The National Park Service has cooperated with various BLM contract researchers in obtaining information about the park islands. In addition, the Park Service was of direct help in gathering and assessing archeological information. The park staff has reviewed the various public documents relative to lease

sales 35, 48, 68, and 80 and will continue consultation to ensure protection of park resources after future lease sales. (The role of the Bureau of Land Management in these lease sales has recently been taken over by the Minerals Management Service.)

#### U.S. FISH AND WILDLIFE SERVICE

Federal agencies are required by the Endangered Species Act of 1973, as amended, to consult with the Fish and Wildlife Service about threatened or endangered species. Federal agencies must ensure that their actions do not jeopardize plant or animal species that have been recognized as threatened or endangered. If a federal action may affect one of these species, the Fish and Wildlife Service must be consulted. NPS guidelines indicate that if a species is a candidate for designation, informal consultation will take place. Because several species have been considered, proposed, or are already listed as threatened or endangered species, the proposals of the General Management Plan have been prepared in consultation with the Fish and Wildlife Service. The National Park Service, in cooperation with the Fish and Wildlife Service, also enforces the Migratory Bird Treaty Act of 1918, which protects migratory birds (e.g., waterfowl) and also most species of songbirds. Most research, including banding, having to do with birds within the park is covered by federal permits from the Fish and Wildlife Service. That agency also conducts research related to endangered species.

#### CALIFORNIA OFFICE OF HISTORIC PRESERVATION

All plans and proposals for development that might affect cultural resources are reviewed by the California Office of Historic Preservation. Additionally, a liaison for the California Native American Heritage Commission is part of the office staff and reviews plans for consultation and coordination with concerned native Americans. The state historic preservation office comments on plans as part of required compliance with the National Historic Preservation Act of 1966. An integral part of this review process includes consultation with the Advisory Council on Historic Preservation.

#### CALIFORNIA COASTAL COMMISSION

The California Coastal Commission promulgates regulations designed to protect the California Pacific coastal strip from detrimental or unrestricted development, and it ensures compliance with them. This General Management Plan has been prepared with full knowledge of local coastal zone management policies and is considered consistent (see appendix F, Draft General Management Plan Supplement/Environmental Assessment). The commission has concurred in this consistency determination. However, because of the conceptual nature of the plan, further consultations will be held as detailed implementation plans are prepared.

## LOCAL GOVERNMENTAL AGENCIES AND ORGANIZATIONS

In addition to formal working relationships with the preceding agencies, the park staff works closely with local governmental agencies, educational institutions, and community organizations to ensure that programs and proposals for the park are complementary to community needs. Both the Ventura Port District and the Ventura Architectural Review Board were consulted extensively during design of the headquarters facility. Numerous educational institutions conduct field trips to the islands, and the Santa Barbara Museum of Natural History has initiated, with NPS cooperation, a series of trips to San Miguel Island. Native Americans are being consulted in regards to their concerns for the archeological sites on the islands.

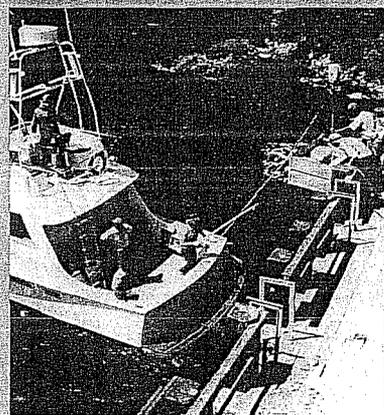
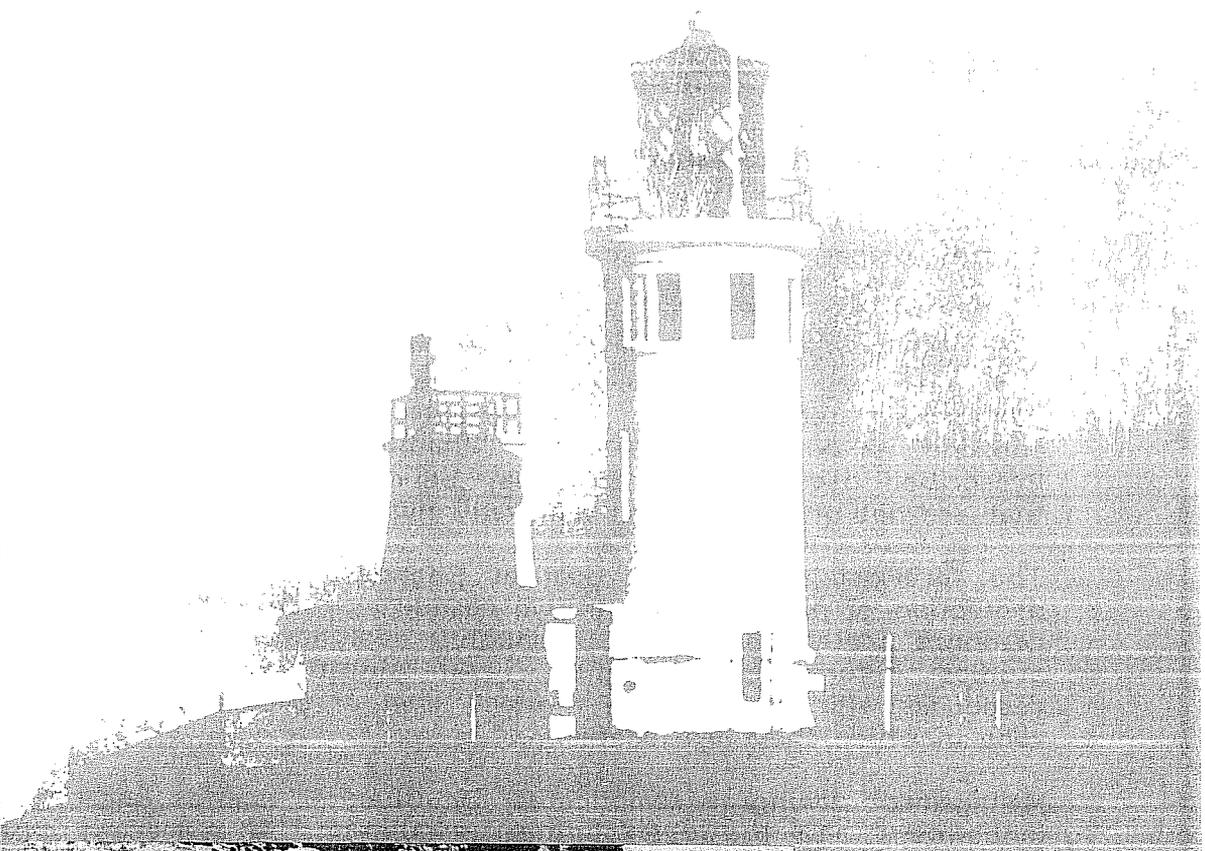


management plan

The management strategies described in this section are intended to guide park management for the next five to 10 years. In reality, the life of the plan could be much longer if there are no significant changes that would require a new plan or major revisions. Major revisions would require that the plan be amended, with full public involvement.

Many of the management strategies are conceptual because a large portion of the park is not now under NPS ownership and it has not been possible to conduct detailed studies at specific sites. As the privately owned lands come under park management, additional studies will be required, and the actions proposed in this plan will be reevaluated in the context of any new data.





## MANAGEMENT ZONING

Management zoning is used by the National Park Service to prescribe areas where certain desired conditions are to be achieved and where certain uses may be provided. Management zones at Channel Islands are based on composite resource sensitivity maps that show cultural resources, vegetation distribution, wildlife habitat, geological and paleontological features, scenic areas, and existing facilities. (See the Draft General Management Plan Supplement/Environmental Assessment and vol. 2 of the 1980 General Management Plan for copies of these maps.) Four zones--natural, historic, development, and special use--will be used, and they may be subdivided for specific types of uses and resource management techniques. The management emphasis for each zone or subzone is based on the NPS "Planning Process Guideline" (NPS-2). Prescribed uses in each zone may be modified as appropriate, but uses that are not prescribed will generally not be permissible.

The foremost management goal at Channel Islands National Park is the protection of natural and cultural resources. Any action that could affect resource protection will be thoroughly evaluated by means of site-specific studies before implementation. All significant natural and cultural resources will be given the highest level of protection, regardless of the zone in which they are located.

Management zoning is complicated for Channel Islands because of various landowners and the overlapping jurisdictions of numerous governmental agencies. The plan has been prepared in cooperation with these other interests, and it represents a general agreement for future management of the islands and surrounding waters. (See the 1984 Land Protection Plan for a discussion of ownership, jurisdictions, and cooperative agreements.)

Anacapa, San Miguel, and Santa Barbara islands are currently managed in accordance with limited-entry, low-intensity use principles. Certain areas are set aside for fairly intensive use (as on East Anacapa), and some areas are totally closed to visitation (most of West Anacapa) or are seasonally closed. Visitors must stay on designated trails, and in many sensitive resource areas they must be accompanied by a ranger. NPS personnel on the islands have much discretion in day-to-day management, in accordance with policies established by the park superintendent, this General Management Plan, and other management documents.

Santa Rosa and Santa Cruz islands will also be managed according to limited-entry, low-intensity use principles. The management zoning plan described below is based on preliminary research that has been conducted on the two islands by NPS scientists and planners. Further research may lead to changes, particularly in areas where sensitive resources may not have been adequately inventoried.

Zoning may be made more restrictive by the superintendent at any time; less restrictive zoning, however, would require an amendment of this plan. The proposed management zones are shown on the Management Zoning/General Development maps (see "Visitor Services, Uses, and Facilities" section).

## NATURAL ZONE

The management emphasis in the natural zone will be on the conservation of natural resources and processes, and uses that do not adversely affect these resources and processes may be accommodated. Most of park lands and waters are classified in this zone. The natural zone is subdivided into five subzones, as appropriate for each island: outstanding natural feature, natural environment, protected natural area, experimental research area, and ecological reserve.

### Outstanding Natural Feature Subzone

The management emphasis in this subzone, which includes scenic vistas as well as outstanding natural and cultural resources, will be public appreciation and interpretation of geological, paleontological, or ecological features possessing unusual intrinsic value. Development will be limited to trails, interpretive trails and wayside exhibits, and where appropriate, picnic sites. Primitive backcountry campsites may be permitted if suitable locations in other subzones are not available. Existing four-wheel-drive roads and grass airstrips may remain within this subzone if needed for management purposes or other appropriate uses. Ultimately, these roads and airstrips will be obliterated.

### Natural Environment Subzone

The management emphasis in this subzone will be to provide environmentally compatible recreational activities. The lands will be managed to conserve natural resources and processes. Uses that do not adversely affect these resources and processes will be allowed. Minor and unobtrusive management and visitor facilities (such as trails, backcountry ranger stations, wayside exhibits, walk-in and primitive campsites, primitive shelters, informational signs, navigational aids, and weather stations) will be permitted. The manipulation of vegetation and animal habitat for research or restoration of ecological communities will be allowed. Temporary research camps may be established, and existing airstrips and four-wheel-drive roads may remain as long as needed for appropriate uses.

### Protected Natural Area Subzone

The management emphasis will be to perpetuate ecological values, with or without human intrusion; these lands will be set aside for strict protection because of unusual resource fragility or ecological significance. Research will generally be directed to managing rare, threatened, endangered, or special status species and to preserving natural, geological, and cultural resources. When necessary, ecological communities may be restored. Although this subzone may contain major areas of sensitive habitat, it is not the only zone with sensitive areas. Visitor use may be restricted or prohibited on a year-round or seasonal basis. Generally, visitors will be confined to a trail system, and in some areas they may have to be accompanied by a ranger or guide. Wayside

exhibits or self-guiding trails may be provided, and existing roads may remain if needed for management uses.

#### Experimental Research Area Subzone

Areas that were previously disturbed by human or natural causes and that require extensive experimental, manipulative research will be included in this subzone. The management emphasis will be to restore natural conditions and processes. If and when such efforts are successful, these areas may be reclassified to another subzone. Interpretive waysides, trails, and existing roads will be permitted. In some instances, structures associated with resource management programs may be required.

#### Ecological Reserve Subzone

The waters and submerged lands within 1 nautical mile of the three islands now managed by the National Park Service have been designated by California as ecological reserves. Although they are within the administrative park boundary, the submerged lands are owned by the state and the living marine resources are under the jurisdiction of the California Department of Fish and Game. Normally these lands and waters would be designated special use zones, but they have been placed in the ecological reserve subzone to recognize their importance. The Park Service will encourage the California Department of Fish and Game to seek formal designation of the waters and submerged lands around Santa Rosa and Santa Cruz islands as state ecological reserves. This will provide flexibility in management to ensure the perpetuation of a healthy marine ecosystem.

#### HISTORIC ZONE

The management emphasis in the historic zone will be to preserve, protect, and interpret cultural resources and their settings. Because of the widespread cultural resources, including archeological sites, most park lands (except for preservation/adaptive use areas and special use zones) will be subject to dual zoning--historic and natural. The historic zone will be divided into two subzones: preservation and preservation/adaptive use. At this time, however, only those lands in the preservation/adaptive use subzone have been identified. The status of many cultural resources on eastern Santa Cruz and Santa Rosa is indicated as undetermined on the Management Zoning/General Development maps. Further evaluation is required to decide which sites or structures should be considered historic. When these evaluations have been completed, the maps will be revised, and additional lands may be included in either the preservation or preservation/adaptive use subzone. Archeological sites are not mapped. Areas identified for historic landscape preservation will be part of the preservation/adaptive use subzone. Submerged cultural resources are not under the jurisdiction of the National Park Service; rather they are protected under marine sanctuary and state regulations.

Significant historic structures in the preservation/adaptive use subzone may be used, with necessary modifications, for public or administrative activities or functions as long as the qualities that make these resources and their settings historically significant are maintained. Structures may also be leased by the private sector to provide compatible visitor services. Additional facilities will be permissible, but they will have to be sensitively designed to maintain the historic character of the area. Preliminary evaluations indicate that existing structures may provide locations for most of the administrative and visitor use functions on Santa Rosa and eastern Santa Cruz. Historic structures on Anacapa are currently being adaptively used by the National Park Service. Campgrounds will be permitted in historic landscape preservation areas if further evaluation shows that they will be compatible with the historic scene.

#### DEVELOPMENT ZONE

Structures and facilities considered essential for management needs and visitor use will be placed in the development zone. Minor facilities such as hiking trails, infrequently used four-wheel-drive roads, and primitive campgrounds or shelters may occur in other zones. The low-intensity use policy will generally preclude the need for extensive development. Major management facilities are located on the mainland, and most management and visitor facilities on Anacapa, eastern Santa Cruz, and Santa Rosa will be provided through the adaptive use of existing structures. On San Miguel and Santa Barbara, specific areas have been designated as development zones, and all facilities will be confined to these areas. Temporary management and visitor use facilities may be required on eastern Santa Cruz and Santa Rosa until existing facilities become available for NPS use.

Separate development subzones have not been established. Symbols on the Management Zoning/General Development maps indicate campgrounds (those with tables, grills, and toilets), airstrips to be retained for administrative use, four-wheel-drive trails to be retained for administrative use, and areas for administrative development/visitor services (including ranger stations, maintenance facilities, visitor centers, and utility systems). Where a development zone is indicated within a preservation/adaptive use subzone, the historic preservation policies will govern any new development or adaptive use of existing structures.

#### SPECIAL USE ZONE

Facilities not owned by the National Park Service but operated under a permit or through prior rights will normally be part of the special use zone. No subdivisions of the special use zone are considered necessary at this time.

All of the lands belonging to the Santa Cruz Island Preserve (Santa Cruz Island Company and the Nature Conservancy) will be part of the special use zone because NPS administrative control is either lacking or secondary to that of another party. If the Nature Conservancy adopts a

long-range management plan with zoning that is compatible with NPS zoning, that zoning may be included by reference in the park's management zoning plan.

Navigational aids and weather stations may be permitted in any management zone under a special use permit. Future requests for such aids will be evaluated individually to ensure no adverse effects on natural or cultural resources. Separate zone designation for these minimal facilities will not be required. However, major navigational aids, such as lighthouses, are indicated as special use zones.

## RESOURCE MANAGEMENT OVERVIEW

The complex natural and cultural resources of Channel Islands National Park require sensitive management to ensure their preservation. To be sure that park personnel are aware of the unique qualities of the resources, they will be trained to recognize rare plants and animals, fragile habitats, archeological sites, and other special resources. A manager's manual will be prepared for each island to locate sensitive resource areas, to provide guidelines for monitoring visitor use and resource impacts, to identify significant plants and animals, and to supply history and other information helpful to the personnel stationed on the islands. The manuals will also help new staff members adapt quickly to their jobs. Informal training at local institutions such as the Santa Barbara Museum of Natural History and the Santa Barbara Botanic Garden will further educate park personnel about the unique resources of the Channel Islands.

Many of the resource management proposals call for monitoring, which can be accomplished by trained personnel on the islands. The ability of these people to recognize potential problems will allow remedial actions to be taken in time to prevent major adverse effects. On-island managers, under the guidance of a resource management specialist, will be the key to the successful implementation of the overall resource management plan.

A resource management division has been established at the park and includes a research coordinator position, a resource management specialist, and support staff. This separate division, which reports directly to the superintendent, evaluates research proposals, provides logistics support for research personnel, and assists the resource management specialist in carrying out monitoring, conducting research, and directing management programs. Research proposals are reviewed by the park staff, the Western Regional Office, and the cooperative park studies unit at the University of California, Davis. Professionals in related fields may also be asked to informally review the proposals. Research will directly benefit the resource management program, and overlapping research projects will be avoided.

Consultation on a continuing basis with the scientific community is encouraged by PL 96-199 and NPS policies. To develop management recommendations, an interdisciplinary approach will be used whenever feasible so that the most effective programs possible will be proposed.

### NATURAL RESOURCES

The focus of natural resource management at Channel Islands National Park will be to lessen man's historic impact and to minimize the introduction of new elements into these unique biological communities, allowing them to evolve naturally, as they did in prehistoric times. Specific resource management proposals for Anacapa, San Miguel, and Santa Barbara islands are described in detail in volume II of this plan, which also defines criteria for research to minimize impacts. A detailed resource management plan for eastern Santa Cruz and Santa Rosa islands

will have to await extensive studies; however, preliminary research allows general management directions to be established. When more information is gained about the natural resources of the islands, it will be included in biennial updates of the 1982 "Natural Resources Study Report." These reports, which are prepared in accordance with PL 96-199, will inventory terrestrial and marine species and indicate population dynamics and probable trends as to future numbers and welfare. They will contain management recommendations for terrestrial and marine resources.

### Terrestrial Resources

Generally, all of the park islands will be managed to achieve as nearly as possible the dynamic natural conditions that would have existed without historic man's intrusion on ecosystems and processes. Exceptions may be made as necessary to provide for the management facilities and visitor services called for in this plan and to protect cultural resources that occur in natural environment areas.

Long-term natural resource management actions will depend on further research and monitoring of visitor use impacts. The designation of protected natural areas on each island will help ensure the perpetuation of unusually fragile resources or ecologically significant communities. Known areas are identified on the Management Zoning/General Development maps; additional areas may be identified during more extensive research efforts on eastern Santa Cruz and Santa Rosa islands. The possibility of reintroducing bird species formerly occurring on the islands will be further examined.

Wherever the environment will have to be manipulated to restore more natural conditions, special care will be taken to avoid further contamination of the unique gene pools that exist on each island. Seeds necessary for revegetation will be obtained only from sources on the island where the work is being done; wildlife will not be relocated from one island to another or obtained from mainland sources, with the possible exception of the bald eagle and peregrine falcon.

Based on research and experimentation, programs will be implemented to reduce to the extent feasible the impacts of introduced plant and animal species. The elimination of introduced animals on Santa Barbara and San Miguel has been a major factor in the recovery of native vegetation on these islands. Attempts will be made to remove all exotic vegetation where there is a direct threat to native species. In landscape preservation subzones some exotic species that contribute to the historic scene will be maintained. It is recognized that with current practices and technology the total removal of exotic plant species will be virtually impossible and prohibitively expensive.

When private lands on eastern Santa Cruz and Santa Rosa have been acquired, ranching and other commercial operations will be discontinued. Any remaining exotic animals such as cattle, sheep, elk, deer, swine, and horses will be removed. Alternatives for removal will be considered by the National Park Service. Consultations with the public and governmental agencies will be conducted for input in the selection of

methods for removal. A few animals may be retained as part of the historic scene in the 800-acre main ranch area on Santa Rosa, and some horses will be kept for ranger patrols on both islands. To mitigate the impacts of grazing, initially 15 acres of grazing land per animal will be allowed, and existing fences around grazing areas will be maintained. Subsequent impacts will be carefully monitored, and stock will be reduced if needed to meet the carrying capacity of the land. Because the exact distribution of threatened or endangered species on these two islands is not well known, a plant and animal survey of any proposed development area will be conducted before actions are implemented.

Erosion abatement measures will be implemented, primarily along trails, and the results will be monitored. On eastern Santa Cruz both the Smugglers and Scorpion drainages are subject to heavy runoff during the winter rainy season. Runoff channels have been developed in both valleys, but high tides or storm-developed berms can block the outlets to the ocean.

The old ranch structure at Smugglers Cove appears reasonably well protected by a stone retaining wall and a broad channel. Further protection measures do not appear necessary. Additional permanent structures will not be proposed in the valley except possibly toilet facilities. If temporary facilities are required under the phased acquisition approach, they will be sited on high ground. Further flood hazard mitigation is not anticipated at Smugglers, but a flood hazard study will be conducted prior to any permanent development.

The Scorpion drainage contains a natural channel that has been widened in some areas, but the outlet is frequently blocked at the beach. In contrast to Smugglers, Scorpion Valley narrows as it approaches the ocean, and flood waters have been reported up to 2 feet deep in some ranch structures. As recommended by a flood hazard study, the channel will be maintained and improved (both for aesthetics and for water flow control), but the lower end of the valley will remain subject to flooding under certain conditions. Additional consultations with state and federal agencies will be required before a flood mitigation plan is implemented. The broader upper ends of the valley do not appear to present any flood hazards. Existing structures in the floodplain may be adaptively used, but new permanent structures will not be constructed in that area.

As a part of ongoing studies, the park will prepare a water resource management plan to ensure compliance with federal and state laws on water quality and a separate report on compliance with executive orders related to floodplains, wetlands, and tidal wave hazards. The actions proposed in this plan are consistent with the above laws and executive orders.

### Marine Resources

The marine resources of the Channel Islands are closely related with the terrestrial resources of the islands, and the survival of land-based species such as seabirds is dependent on a healthy marine environment. Man is the primary threat to the distinctive marine ecosystem, and the

various state and federal regulations seek to minimize harmful threats to these resources. Even though there are undoubtedly evolutionary processes that cannot be reversed, the maintenance of a healthy environment will be encouraged.

To accomplish this, the National Park Service will encourage the California Department of Fish and Game to establish state ecological reserves and to adopt appropriate regulations to allow management flexibility so as to ensure the perpetuation of marine resources for public benefit. Regulations that are established should be based upon scientific knowledge, monitoring, and evaluation so that sound recreational and commercial use limits can be established and a balanced ecosystem can be maintained.

### Wilderness Suitability

Anacapa, Santa Barbara, and San Miguel islands are gradually recovering from past uses. East Anacapa Island contains a relatively extensive developed area, but Middle and West Anacapa are essentially undeveloped. Santa Barbara Island has a small developed area near the landing cove that requires extensive rehabilitation, and there is a fairly extensive trail system. San Miguel has two small developed areas (with temporary facilities) and two grass airstrips, and motorized vehicles are occasionally used to move supplies and equipment. All three islands contain navigational aids and weather stations.

Some manipulative resource management techniques are still required to restore these islands to more natural conditions. Such efforts typically require the use of helicopters, the installation of monitoring devices and the establishment of transects, and in some instances erosion control structures. On the larger islands four-wheel-drive vehicles are commonly used. Because the islands are primarily open grasslands, these minor intrusions are visible over long distances and may be perceived as adversely affecting wilderness quality, particularly on Santa Barbara and San Miguel islands.

With access provisions for research and resource management activities and for essential navigational aids, San Miguel, Santa Barbara, and Middle and West Anacapa islands do meet wilderness criteria, if the small developed areas are excluded. However, the greatest deterrent to wilderness designation at this time is the visual intrusion of the various resource management and monitoring apparatus and the continuing need for active resource management projects.

Santa Rosa and Santa Cruz islands are currently privately owned working ranches, with extensive four-wheel-drive road systems, several airstrips, and numerous structures. All of Santa Rosa and the eastern 10 percent of Santa Cruz are to be acquired by the National Park Service, with the rest of Santa Cruz remaining in private ownership. Currently, these lands do not meet wilderness criteria for a variety of reasons, including the presence of domestic livestock and exotic grazing animals. The extent of resource disturbance is so great, and the results of removing exotic species are so unpredictable, that it will be necessary to actively

conduct extensive research and management programs during the first phases of recovery. This may require the interim retention of access roads and airstrips, thus precluding immediate wilderness designation.

Consequently, formal wilderness studies and recommendations for all of the islands will be deferred until predominantly natural conditions have been restored and no further intensive resource management efforts are needed. In the meantime natural areas will be managed to the extent feasible as wilderness so as not to preclude later qualification for such designation.

### CULTURAL RESOURCES

Cultural resources will be managed in accordance with procedures established by the National Park Service for treatment of archeological, historic, and other cultural properties. These procedures conform with the National Historic Preservation Act of 1966, as amended, Executive Order 11593, "Regulations for the Protection of Historic and Cultural Properties" (36 CFR 800), the NPS "Management Policies" (chapter 5), and the NPS "Cultural Resources Management Guidelines" (NPS-28).

In carrying out its responsibilities under the American Indian Religious Freedom Act and related NPS policies, the National Park Service will continue to seek participation by and consultation with appropriate native American groups in the research and management of cultural resources on all the park islands. Special consideration will be given to archeological sites that contain human remains. Appropriate preservation techniques will be determined in consultation with native Americans and NPS professional staff. Final actions will be determined on a case-by-case basis under procedures agreed to with the state historic preservation officer and the Advisory Council on Historic Preservation.

An interdisciplinary approach to research and management actions is essential because of the abundance of sensitive resources. Exotic plant reduction could severely affect cultural sites; archeological investigations could disturb critical habitat; and a trail relocation could do more harm than good. Adequate training of the park staff will minimize the potential for adverse effects in these cases. A multidisciplinary approach will ensure that sensitive areas are not overlooked. Tighter controls on research activities will also minimize inadvertent resource damage.

All of the park islands contain numerous archeological sites, but only Santa Barbara and Anacapa have been adequately surveyed. The three NPS-managed islands are listed on the National Register of Historic Places as archeological districts; eastern Santa Cruz and Santa Rosa will be nominated to the register, if determined eligible, once they have been acquired by the Park Service. All actions will have to be cleared by the NPS Western Archeological Center before any ground disturbance or the implementation of any natural resource management action that could affect cultural resources. Site-specific surveys will also be conducted before any planned action is carried out. Where feasible, trails and other facilities that infringe on archeological sites will be relocated. However, no relocation will be undertaken that will disturb other cultural sites or critical plant or animal habitat.

Surveys to determine the kind and extent of archeological resources on the islands will use such techniques as remote sensing to identify areas likely to contain archeological remains. These methods will always involve traditional ground surveys. Such procedures can be phased according to the availability of funding and personnel. All ground-disturbing activities resulting from implementation of proposed actions will be preceded by site-specific archeological surveys and, where appropriate, subsurface testing. Many significant archeological sites are currently exposed because of the secondary effects of past overgrazing. With the elimination of grazing and a subsequent increase in vegetation, sites will be less obvious, although some areas will need additional protection. Archeological sites adjacent to areas of visitor use will be monitored by park staff to determine what impact, if any, is being received by these resources. If a negative impact is detected, appropriate administrative actions will be undertaken, such as closing the area to visitors or rerouting or redirecting visitors away from the area.

Existing historic structures, such as the U. S. Coast Guard complex on East Anacapa Island, will be rehabilitated, preserved, adaptively used for management and visitor needs, and interpreted to the public. Reconstruction or replication of historic structures will not be attempted, as this contravenes NPS policy.

The Lester Ranch complex and the Nidever adobe on San Miguel have experienced substantial deterioration and are considered ruins. They will be treated as historic archeological sites and, after evaluation to determine the extent and kinds of material present, will be salvaged, stabilized, or left alone for future study.

Other historic sites exist on the NPS-managed islands, mostly in the form of ruins. These will be further evaluated against National Register criteria and nominated if qualified. The significant cultural resources on eastern Santa Cruz and Santa Rosa islands consist mainly of sites related to 19th century marine mammal hunting, structures associated with ranching operations, archeological sites related to prehistoric and historic occupation of the islands, abandoned military sites, and submerged cultural resources, such as shipwrecks.

Because eastern Santa Cruz and Santa Rosa islands are now privately owned, the National Park Service has no direct jurisdiction over the management or care of cultural resources. However, as the lands are acquired, the Park Service will conduct adequate research programs and will provide for the preservation, restoration, protection, interpretation, use, study, and management of significant cultural resources. A cultural sites inventory and cultural resource base map will be prepared and maintained by the park. Based upon professional evaluation, all qualifying cultural resources will be nominated to the National Register of Historic Places. All aboveground historic or archeological structures will be evaluated and added to the List of Classified Structures, an internal NPS listing that assists park managers in planning and programming appropriate treatment and in recording decisions affecting listed structures.

The principal resource management strategy for historic structures on eastern Santa Cruz and Santa Rosa islands will probably be preservation of the existing exterior features and renovation of the interiors for adaptive use. When all of the structures have actually been evaluated, however, it may be found that some structures are in an advanced state of disrepair so that rehabilitation will not be feasible. These structures will be recorded and allowed to deteriorate naturally, or if they pose a threat to life or safety, they will be removed.

The National Park Service will prepare a historic structure report for each property or complex of related historic properties. Each report will include a collection, presentation, and evaluation of anthropological/archeological, historical, and architectural/engineering research findings on the individual structure or group of structures and their setting. Recommendations for their treatment and use will also be made. Pending completion of the reports, only emergency preservation maintenance activities will be undertaken on the structures. For each property or complex of related historic properties, a historic structure preservation guide will be prepared to serve as a reference for park maintenance personnel in programming routine and cyclic maintenance activities. All work will be done according to the historic structure report and the preservation guide, and it will be carried out under the direct supervision of a historical architect.

Sanctions against the unauthorized appropriation or destruction of cultural resources will be carried out by rangers, who will inspect identified sites and post and enforce applicable regulations to protect resources.

Generally, the National Park Service has no jurisdiction over submerged cultural resources lying off the islands. However, the Park Service will monitor activities that may affect prehistoric or historic submerged cultural resources, and it will notify the appropriate state and federal authorities if laws are violated.

Depending on the availability of funds and the willingness of property owners to sell, certain lands containing cultural resources may not be conveyed to the National Park Service in fee or may be conveyed subject to tenancies. In such cases appropriate less-than-fee arrangements or lease stipulations will be sought to ensure the adequate protection of cultural resources. These arrangements may include facade easements or other protection methods.

Pursuant to the "Management Policies" and NPS-28, all management actions on the park islands that might affect cultural resources will be reviewed in advance by NPS cultural resource specialists to ensure that any possible impairment is avoided or minimized. If unavoidable adverse effects are identified, they will be mitigated in accordance with the referenced policies and guidelines.

## VISITOR SERVICES, USES, AND FACILITIES

Channel Islands National Park will be managed for dual purposes: to preserve the significant natural and cultural resources of the lands and waters within the park, and to provide for the understanding and enjoyment of these resources by the general public. The uses permitted and the services and facilities provided will be those that are necessary for a quality visitor experience, with minimal impact to the resources. Management zoning prescribes the types of uses that may be permitted in specific zones. This section of the plan describes in more detail the specific uses, services, and facilities that will be provided, and it establishes carrying capacities (in some instances preliminary and subject to revision) for various use areas in the park.

### CARRYING CAPACITIES

Visitor use on all five park islands will be based on limited-entry, low-intensity use policies, as required by PL 96-199. Carrying capacities for eastern Santa Cruz and Santa Rosa will be refined after the private lands have been acquired and after park managers and research personnel have had a chance to live on the islands and become familiar with the varied resources, hazards, and special conditions. They will also locate sensitive areas where strict carrying capacities will be needed, such as backcountry campsites.

Carrying capacities will help ensure the protection of each island's unique resources and the provision of a relatively uncrowded experience for visitors. Setting and enforcing firm capacities will be virtually impossible because visitation by private boaters is unpredictable, and only commercial operators can be scheduled. Capacities for day and overnight use will be used as management guidelines rather than as strict limits, allowing on-island managers to make adjustments according to seasonal conditions and impacts on resources as well as visitor demand. For example, private boaters wishing to land on East Anacapa should not be turned away just because there is a full tour load of visitors on the island; however, if several boats arrive at the same time, the island ranger should request that they wait until the tour group has departed.

Use levels for eastern Santa Cruz and Santa Rosa will remain low, and facilities will be provided primarily at existing developed areas. The proposed capacities are based on projected resource carrying capacities and the desired visitor experience. Preliminary resource studies indicate that both islands have extensive areas that could support significant levels of visitor use with minimal effects on sensitive resources. Nevertheless, the number of visitors will be limited to ensure quality visitor experiences, and the areas receiving the most use will generally be restricted to already developed entry points and adjacent areas. Day use capacities on eastern Santa Cruz and Santa Rosa will depend to a large extent on visitor use patterns. If visitors concentrate in certain areas, capacities will be low, if visitors disperse, overall capacities can be higher. As more is learned about the islands, it may be feasible to increase capacities in some areas.

Use impacts on all of the islands will be monitored to determine if more visitors may be accommodated, capacities must be reduced, or use patterns must be changed. Some areas may be closed to visitor use to give vegetation a chance to recover, to control erosion caused by humans, and to protect habitats during critical breeding, nesting, or haulout seasons. Capacities proposed for each of the islands are shown in table 1.

Table 1: Island Carrying Capacities

	<u>Day Use</u>	<u>Overnight Use</u>
Anacapa		
East Anacapa	75 people at one time by tour boat, plus individual boaters	30 maximum
Middle Anacapa	Small groups by advance arrangement and accompanied by a ranger	none
West Anacapa	Frenchy's Cove--30 people at one time or up to 75 in a supervised group	none
	Rest of island closed	
San Miguel	Cuyler Harbor area--35 to 50 persons, with up to 100 allowed periodically (landings by permit only and when NPS personnel are present)	Lester Ranch--experimental camping under supervision of ranger, not to exceed 15 persons at one time
Santa Barbara	100 people at one time	30 maximum
Capacities for eastern Santa Cruz and Santa Rosa islands will be determined following completion of resource inventories. The initial capacities below are based on preliminary research and are subject to modification:		
Santa Cruz	Scorpion Valley--initially 100 people on concessioner-operated tours, no limit at first on pleasure boaters wanting to come ashore	Scorpion Valley--30 to 45 campsites (4 to 6 persons per site)
	Smugglers Cove--no limit initially on pleasure boaters wanting to come ashore	Smugglers Cove--interim use only pending development of Scorpion Valley campground, one or two sites (4 to 6 persons per site)
	Backcountry--limited by capacity at access points	Backcountry--limited camping by reservation only, capacity depending on site-specific analysis
Santa Rosa	Bechers Bay--no limit at this time	Windmill Canyon--15 sites (4 to 6 persons per site)
	Johnsons Lee--subject to further study	Johnsons Lee--subject to further study
	Backcountry--no limit at this time	Backcountry--capacity depending on site-specific analysis

## ACCESS AND TRANSPORTATION

The cost of public transportation to the park islands is a major concern. High costs may mean that only the more affluent segments of the population will be able to visit the islands. Because the congressionally mandated limited-entry policy restricts the number of visitors that can be on the islands at one time, only a certain number of passengers can be transported on concessioner boats. Consequently, costs are fairly high, and the fares are generally too expensive for many potential visitors from nearby urban areas. If higher capacity boats could be used, it might be possible to provide more economical transportation.

A formal transportation study will not be initiated until long-range capacity determinations have been made for eastern Santa Cruz and Santa Rosa islands. In the meantime the private sector and the present concessioner should be able to meet projected transportation demands.

When eastern Santa Cruz is opened to the public, scheduled boat transportation services will be provided by a concessioner. Scheduled service to Santa Rosa may be on a limited basis because of its distance from the mainland.

Commercial boat service to Anacapa Island will continue to provide access to visitors on day outings. Shuttle service may be provided from eastern Santa Cruz to East Anacapa, which will allow about four hours on the island. Excursions will also be offered around Anacapa, allowing a shorter visit to East Anacapa, or to Frenchy's Cove during low tides.

Private boater access and charter boat service will continue to San Miguel. The National Park Service will encourage educational institutions and other organizations to sponsor trips to San Miguel on adequately equipped boats that can withstand the often heavy seas and can provide sleeping space for passengers. Landing permits will continue to be required for San Miguel.

Access to Santa Barbara will continue to be primarily by private boat, although scheduled and charter service will be available. Frequent scheduled boat service to Santa Barbara may never be economically feasible because of the distance from the mainland and the limited carrying capacity of the island.

In accordance with NPS policies, access for disabled visitors and special populations will be provided to the extent feasible; however, the difficult landings and rugged terrain will be limiting factors. Boat access to marine areas and the peripheries of the islands will allow many visitors who might not be able to go ashore a chance to enjoy this aspect of the park. The use of helicopters to transport disabled visitors may be permitted with advance arrangement. Scorpion Valley on eastern Santa Cruz can be made reasonably accessible, although some personal assistance may have to be provided. The park staff will continue to work with individuals and groups to provide reasonable access and interpretive experiences.

## ORIENTATION AND INTERPRETATION

Information about and orientation to the park islands will be presented at the mainland visitor center in Ventura Harbor. The major interpretive programs, which foster an understanding of the natural and cultural resources of the park, will be presented by NPS personnel stationed on the islands, who will provide interpretation to island visitors and to boaters in the surrounding waters.

Information at the park visitor center will include tour boat schedules, rules and permit procedures, appropriate clothing and supplies, and any other things visitors will need to know to have an enjoyable trip. Informational brochures will be distributed to various marinas, chambers of commerce, and charter boat operators to inform the boating public of the special regulations that apply to the islands and surrounding waters. General information about the activities and services offered by the Nature Conservancy and the Santa Cruz Island Club on Santa Cruz will be available. Visitors will also be able to find out about activities on Santa Catalina Island and how to get there.

Exhibits at the visitor center show some of the natural and cultural features that can be seen in the park, as do films and slide programs given in the auditorium. These services will be continued. Outreach programs will continue to be offered to school and other groups that might not be able to visit the islands.

Interpretive programs on the islands will be low key and unobtrusive, giving visitors the chance to experience the islands in their natural setting, without the intrusion of development. Most of the interpretation will be handled by NPS personnel stationed on the islands. This approach is in keeping with public comments favoring minimal development and emphasizing personal services. Personal interpretation will be keyed to visitors' interests; however, a general theme will be the fragile interrelationship of all the resources and of how erosion, the intrusion of introduced plant species, or man's impact on a sensitive resource can ultimately affect an entire ecosystem. These interpretive efforts will be supplemented by various publications that focus on specific resources (for example, birdlife, tide pools, marine resources, history, Chumash Indians, and vegetation).

Small exhibit areas on East Anacapa, San Miguel, and Santa Barbara each display maps, photographs, and other items of general interest. These facilities will be continued. Because visitors may not always be present at the right season to see coreopsis in bloom or a particular species of pinniped, these informal exhibits will help familiarize them with the seasonal variations. Self-guiding trails with numbered posts and illustrated brochures will be maintained on East Anacapa and Santa Barbara islands to supplement the personal services. Similar trails and exhibit areas may be developed on eastern Santa Cruz and Santa Rosa islands.

Because so few people will be able to visit San Miguel, videotapes or films will be prepared for use in the mainland visitor center and for loan to

schools and groups. These will allow a wide audience to learn about the unique resources of San Miguel.

An interpretive wayside exhibit will be provided at Frenchy's Cove, and others may be provided in areas with significant resources where waysides would contribute to their interpretation. The wayside at Frenchy's Cove will explain the fragility of the tide pools and relate the colorful history of "Frenchy" Le Dreau.

An underwater guide to the marine resources around Anacapa will offer an additional experience for divers. Hand-held glass-bottom viewing boxes are available for visitors who do not dive but want to view the underwater beauty without leaving their boats. The present tour operator provides this service, but the island ranger should also have the boxes available for loan to private boaters and may on occasion lead groups to areas of particular interest. An underwater video camera at the Anacapa dock may be used as an interpretive device.

Informal evening programs will be given on all of the islands, generally when interest is expressed by the campers. Audiovisual capabilities will be provided, but most programs will be less formal and directed toward the interests of overnight visitors. When research personnel are present on the island, they will be encouraged to participate in these programs and to discuss research projects with day visitors, particularly when the work is highly visible and is being carried out in an area that is closed to visitors.

Eastern Santa Cruz and Santa Rosa islands, once they are available for public use, will provide ideal locations to expand and develop several park interpretive themes and programs. A separate interpretive plan will be prepared to further define specific themes and techniques. Some themes are common to all of the islands and surrounding waters, others may receive special emphasis on a particular island, and still others may best be presented at cultural sites, parks, museums, and natural areas on the mainland.

Santa Rosa offers excellent opportunities to interpret the geologic processes shaping the islands and the relationships of the islands to the mainland. Santa Cruz provides similar opportunities, but public access to most of the island is restricted, so on-site interpretive possibilities are limited.

The change in land uses from ranching to a more natural environment and the accompanying effects on vegetation and wildlife are of both scientific and general interest. Research and monitoring programs will provide the basis for these interpretive programs.

The Chumash and other native American cultures are the focus of a major interpretive theme for the entire park. Participation by native Americans will continue to be encouraged in the development of this theme. The opportunity to conduct religious ceremonies on the islands has been requested. Permanent facilities are not required, but any site should offer a certain amount of privacy. Specific requests will be evaluated on a case-by-case, site-by-site basis.

Of the lands to be managed by the National Park Service, Santa Rosa presents the best opportunity to interpret the culture of native American inhabitants prior to European influence. It is known that the climate and vegetation on the islands changed significantly while the Chumash lived there, and these changes conceivably affected the native lifestyle, which possibly evolved from terrestrial to marine-based subsistence as the island vegetation changed. European influence completely changed the lifestyle of the Chumash, but this theme may best be interpreted at various sites on the mainland.

The use of the islands during the marine mammal hunting era, the transition to sheep ranching and later to cattle ranching, oil exploration, and national defense are important historic themes that can be interpreted at several locations.

The interrelationship of the islands and marine ecosystems is another major interpretive theme for the park. Rich intertidal and subtidal areas, extensive kelp forests, marine mammal populations, major rookeries, and endemic terrestrial and marine plant and animal species present significant educational opportunities. Although land-based displays can foster a basic understanding, the resources must be explored firsthand to fully appreciate them. A variety of interpretive methods, including interpretive boat trips, will be used.

For those who wish to know more about the park, a series of publications will be prepared. Attractively illustrated books and pamphlets will provide an overview of the resources, their interrelationships, and the rationale for preservation. Other publications on individual resources are widely available. Some books, such as the history of European man on the islands, should be commissioned by the National Park Service; others can be obtained through private and institutional sources.

The expansion of interpretive activities to include eastern Santa Cruz and Santa Rosa islands will require additional personnel. All personnel who have contact with visitors will continue to be trained in interpretation. Several approaches to providing personal visitor services without a large increase in permanent staff include having seasonal or volunteer interpreters accompany tour and charter boats to the islands, training tour and charter personnel to serve as interpreters, and encouraging charter companies to furnish trained personnel on each of their trips. These methods would free island rangers for other duties, including boat patrols to meet visitors and enforce regulations. Full-time boat patrols around Anacapa and Santa Barbara islands during peak visitor seasons are a management goal.

## USES AND FACILITIES

Each of the park islands has unique features and resources that set it apart from the other islands. This plan proposes to highlight these features so that visitors have a rewarding experience and are able to sense some of the qualities that distinguish each island. Opening eastern Santa Cruz and Santa Rosa islands to visitor use will expand the scope of

the visitor experience considerably, but this will happen only after the islands have been acquired and NPS personnel have had sufficient time to inventory the resources and to reevaluate plan proposals in light of this information. It may take several years to remove safety hazards, upgrade water and wastewater treatment systems, and provide minimal facilities. Limited public use may be possible during this transition period, in which case use patterns will be analyzed before permanent facilities are developed. In the event that the private lands are acquired in phases, temporary facilities may have to be built at sites that would not be used otherwise. In any event full public use of the now private islands is a long-term proposal.

Existing programs for visitor use of the three islands that are already managed by the National Park Service will continue, with relatively little change in the kinds of facilities and services (see table 2). The National Park Service will continually seek to improve the quality of visitor experiences on all the islands. Existing facilities on the islands will be used where possible to support visitor activities. Any utility systems that are replaced or adapted will meet the latest standards and criteria. New wastewater systems have been installed on the NPS-managed islands, and solar-activated panels are supplying part of the energy requirements at all NPS facilities. Energy-saving designs and systems will continue to be used where feasible.

Table 2: Summary of Existing and Proposed Facilities and Services

	Anacapa	Eastern Santa Cruz	Santa Rosa	San Miguel	Santa Barbara
Scheduled Transportation	X	X	Limited	Limited	Limited
Docking Facility	X	X	X		X
Airstrip*		X	X	X	
Ranger Station	X	X	X	X	X
Exhibit Area	X	X	X	X	X
Wayside Exhibits	X	X	X	P	
Guided Walks	X	X	X	X	X
Self-Guiding Trails	X	X	X		X
Evening Interpretive Programs	X	X	X	P	X
Marine Interpretive Programs	X	X	X		
Hiking Trails	X	X	X	X	X
Picnic Area	X	X			
Public Toilets	X	X	X	X	X
Campground	X	X	X	P	X
Backcountry Campsites		X	X		
Public Drinking Water	X	X	X		
Research Field Station			X	X	
Maintenance Facilities	X	X	X	Minimal	Minimal
Corral (patrol horses)		X	X		
Historic Structures	X	X	X	Ruins	Ruins
Patrol Boat Haulout	X	X	X	X	X

\* Airstrips on eastern Santa Cruz and San Miguel will be limited to administrative use. The airstrip on Santa Rosa will be limited to scheduled/charter and administrative use.

X - Existing or proposed facility or service

P - Potential facility or service, subject to further evaluation.

## Anacapa Island

East Anacapa is the easiest island to get to and the most developed of the NPS-managed islands. Because of the generally large number of visitors, various structures, and proximity to the mainland, it is often difficult to achieve a feeling of isolation and solitude on East Anacapa, although campers can sense the isolation once the tour boats leave. In general, however, a wilderness experience is not available. The eastern end of East Anacapa is off limits to visitors, but tours to the lighthouse area will be offered when interest is expressed and personnel are available. The interior of the lighthouse will not be opened to the public because of safety hazards related to the equipment. Since hearing can be damaged by the fog signal, the National Park Service will provide protective devices for visitors and personnel. West Anacapa, except for a primitive day use area at Frenchy's Cove and limited shoreline use during certain times of the year, is closed to public visitation, primarily to protect one of the last California brown pelican nesting areas in the western United States. Under ecological reserve regulations, boating activities close to shore are prohibited in some areas during the critical nesting season.

Middle Anacapa has no structured landing area and no facilities except for shoreline areas accessible to boaters. It will continue to be closed to general visitation, primarily to preserve the rare plant communities. Ranger-guided walks (by reservation) will offer opportunities for limited exploration along carefully selected routes and a sense of solitude not usually available on East Anacapa Island. Interpretation on these walks will emphasize the contrast between the developed east island and the seldom visited middle island, which is gradually returning to prehistoric conditions.

The experience on East Anacapa and, to a lesser extent, on other parts of Anacapa will be one of passive visitor activities; the island will be managed to provide for relatively high levels of use, compatible with resource preservation. To protect resources and to enhance the quality of the visitor experience, some limitations have been established for Anacapa Island visitors. Tour boat operators will be limited to landing a maximum of 75 people at any one time on the east island. More than one group a day will be allowed, but the capacity will not be exceeded except at the landing cove when one group may be arriving while another is leaving. There will be no limit on cruises around the island and no restrictions on private boaters coming ashore on East Anacapa, although this may be necessary in the future.

The day use capacity of Frenchy's Cove will remain at 30 persons at one time. However, organized groups of up to 75 persons total will be allowed at the cove when they are under the supervision of trained personnel. This change from the 1980 plan is based on evidence that supervised groups have relatively low impacts on the sensitive resources of terrestrial and intertidal areas. The change will permit larger school groups to be accommodated and may reduce the cost of educational trips. Frenchy's Cove may be closed to landing at certain times to reduce the impact on marine resources, fragile native plant communities, and archeological resources. Picnicking will continue to be discouraged at the cove because the refuse presumably helps support the black rat population.

Camping will continue to be permitted on East Anacapa Island. Use will be limited to a maximum of 30 people at one time (which will accommodate an average school group or several smaller groups). The 1980 plan proposed the closing of this campground when camping facilities were available on eastern Santa Cruz. Since then, the impacts of camping have been substantially reduced. Rather than affect another area by developing a new campground, the existing campground will be retained.

A full-time boat patrol crew will be based at Anacapa Island in the summer to allow for increased contact with visitors in private boats and the enforcement of regulations within the ecological reserve. Anacapa Island will remain readily accessible to visitors in both private boats and tour boats.

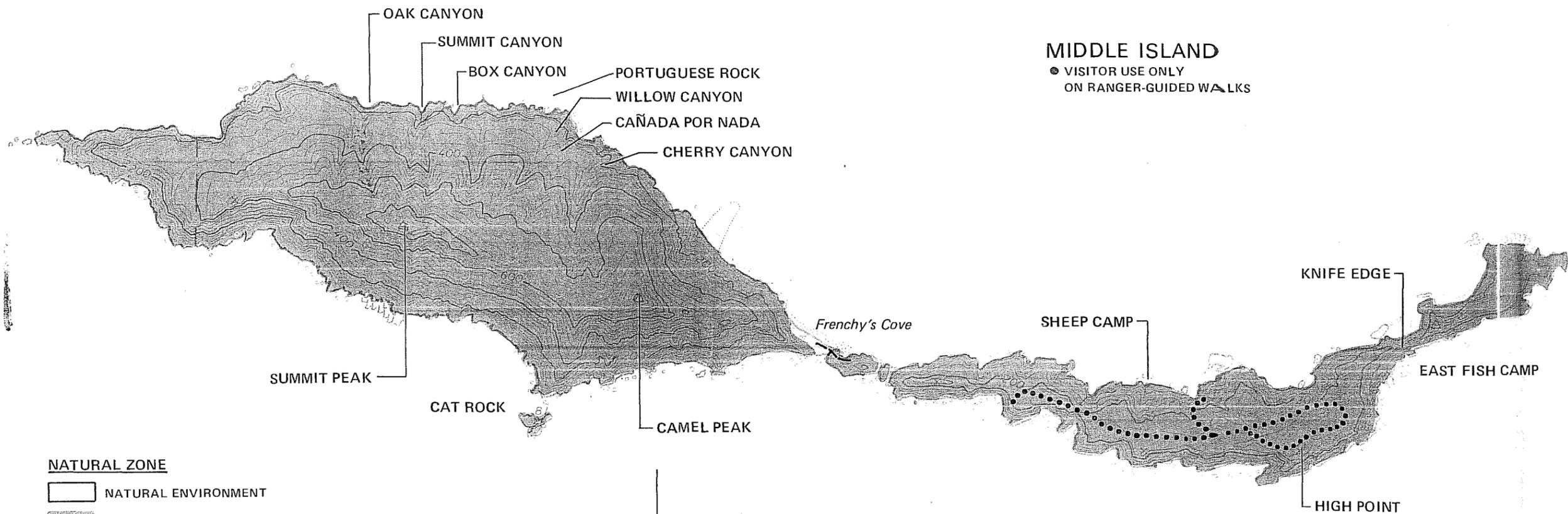
Although capacities on Anacapa will remain essentially unchanged, the opening of eastern Santa Cruz to visitor use may permit a reduction in transportation costs. For example, a larger capacity, higher speed boat might be able to provide transportation to eastern Santa Cruz where most passengers would likely go ashore, then make the run to East Anacapa where up to 75 persons could go ashore. Passengers remaining on the boat could be given a tour around Anacapa Island. Another option would be to provide a shuttle service between Scorpion Anchorage and Anacapa, using a smaller boat. As with any concession proposals, an economic feasibility analysis will be needed once land acquisition has been completed for eastern Santa Cruz.

### WEST ISLAND

- RESEARCH NATURAL AREA (CLOSED TO VISITOR USE)
- FRENCHY'S COVE – DAY USE AREA

### MIDDLE ISLAND

- VISITOR USE ONLY ON RANGER-GUIDED WALKS



#### NATURAL ZONE

- NATURAL ENVIRONMENT
- PROTECTED NATURAL AREA
- ECOLOGICAL RESERVE (TO 1 NAUTICAL MILE OFFSHORE)

#### HISTORIC ZONE (ENTIRE ISLAND)

PRESERVATION/ADAPTIVE USE

#### DEVELOPMENT ZONE

- ADMINISTRATIVE DEVELOPMENT/VISITOR SERVICES
- CAMPGROUND

#### SPECIAL USE ZONE

- NAVIGATIONAL AID

ESTABLISHED TRAIL (SELF-GUIDING)

DESIGNATED ROUTE FOR RANGER-GUIDED WALKS (EXACT ROUTE TO BE ESTABLISHED IN FIELD)

NOTE: SCHEDULED BOAT SERVICE IS AVAILABLE TO EAST ANACAPA ISLAND AND FRENCHY'S COVE (SEASONAL), AND FOR TOURS AROUND THE ISLAND; NO PETS ARE ALLOWED AND ALL VISITORS MUST STAY ON ESTABLISHED TRAILS UNLESS ACCOMPANIED BY A RANGER.



## Santa Cruz Island

Visitor use will probably be relatively high on eastern Santa Cruz because the island is close to the mainland and it will be easier to provide access. Eastern Santa Cruz can provide a varied experience for day visitors who arrive on public transportation and want to hike, relax on a beach, explore canyons and forests, or study the human use of the islands. Depending on boat schedules, a six- to seven-hour visit may be feasible, but a three- to four-hour visit is more likely. Overnight visitors will have a more leisurely experience, and backpackers will have the opportunity to explore the more remote areas. Some visitors will be restricted by the rugged terrain to the more accessible areas. Day visitors, because of their short time on the island, will probably tend to stay in areas adjacent to landing sites.

Scorpion Anchorage. Scorpion Anchorage provides the only reasonably safe access to east Santa Cruz. The existing pier was extensively damaged in the 1982-83 winter storms, and it will be repaired or replaced to provide a safe landing point and a departure point for marine interpretive boat trips. If feasible, a floating dock will be provided to permit easier landings. An existing grass airstrip near Smugglers Cove will be retained for administrative use when sea conditions preclude boat landings at Scorpion Anchorage. Other existing airstrips will be abandoned.

Scorpion Valley. The lower, narrow end of Scorpion Valley contains a number of old ranch structures that will require extensive rehabilitation to be usable. The ranch facilities will be studied individually and collectively to determine their historic merit and their eligibility for the National Register of Historic Places. The historic scene will be retained, and structures will be adapted to provide visitor and management facilities, including a ranger station/visitor center, public restrooms, employee quarters, and maintenance facilities. Corrals and pastures will be retained for NPS patrol horses. Specific proposals for using the structures cannot be made until a full evaluation has been completed, and new structures designed to harmonize with existing structures may be required.

Visitors will be able to obtain information, study exhibits in the visitor center, and explore the old ranch area. Picnic tables will be provided, and day visitors will be encouraged to explore the rest of the valley and the adjacent plateaus. A self-guiding nature trail will lead visitors on a loop route through the valley up to the plateaus and back down the old ranch road.

The initial day capacity will be limited to 100 persons arriving by concessioner-operated tours. No initial limit will be set on pleasure boaters wanting to come ashore. Visitor use impacts will be monitored, and visitor activities will be evaluated to determine future capacity levels. If most day visitors remain in the valley, use levels will be comparatively low because of the open character of the valley floor and the small beach area. However, if day visitors explore beyond the valley, overall capacity could be increased.

A campground will be developed in the upper valley about 0.8 mile from the dock. Although the general area has been examined, additional climatic studies, flood hazard analyses, and resource inventories will be needed before specific campsites can be developed. Preliminary studies indicate that a total of 30-45 campsites can be developed in small clusters so that sites can be separated and use rotated. A central comfort station and an evening program area will be provided.

Existing water and sewage treatment systems in the valley do not meet current public use standards and cannot support the number of anticipated visitors. Water sources appear to be sufficient but will require upgrading. Studies will be needed to determine the appropriate sewage treatment methods. (The area's proximity to the ocean and infrequent flooding in the valley may require that sewage be pumped to a higher elevation for treatment. Effluent discharge into marine sanctuary waters is prohibited.) Power and communication systems will need to be developed. All facilities will be designed to minimize energy consumption, and alternative energy sources such as wind and solar will be used to the extent feasible.

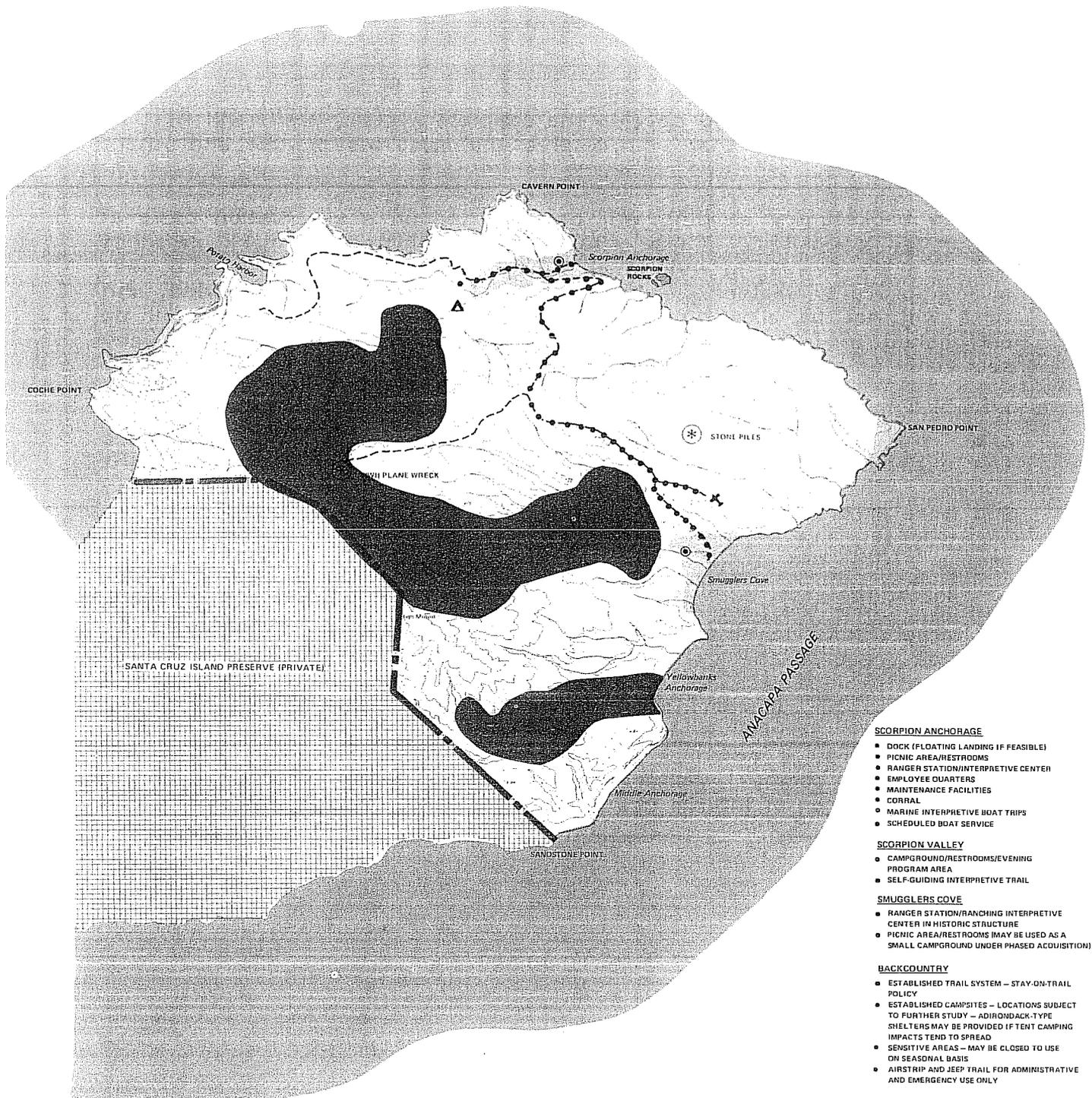
The local coastal plan identifies Scorpion Valley as an environmentally sensitive habitat area. NPS scientists searched the valley and failed to find any significant assemblages of listed plants that could be disturbed by visitor use. Further inventories and consultations will be undertaken as more detailed plans are prepared for this area.

Smugglers Cove. In contrast to Scorpion Valley, the smaller Smugglers Cove area will receive low-intensity use. Landings here can be hazardous, but private boaters will be permitted to come ashore at their own risk. The old ranch structure and immediate setting will be restored, and the structure will be adapted for use as a seasonal ranger station and interpretive center. Toilet facilities and picnic tables will be provided in a sheltered area near the beach. A corral will be retained for a ranger patrol horse. Camping either on the beach or in Smugglers Valley will not be permitted. (The National Park Service established a temporary ranger station at Smugglers Cove in 1984. However, visitors are not permitted ashore without permits from the owners.)

Day visitors will be able to explore the ranch structures and olive groves, and to enjoy the expansive beach. Others may wish to hike into the eroded canyons or onto the adjacent plateaus. Some visitors may hike over from Scorpion (3.4 miles one way), and some may come ashore from private boats; nevertheless, overall use in this area will be relatively low. The provision of water and sewage treatment should not pose a major problem; however, additional flood hazard studies will be needed before design determinations can be made.

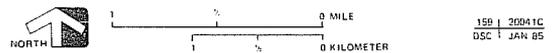
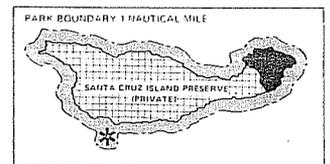
Backcountry. Most of the backcountry (6,000 acres plus) will be managed as a natural area, and a backcountry management plan will be developed by the park staff after additional on-site resource inventories and microclimatic factors have been evaluated.

A trail system will be developed throughout the property, using existing roads and animal trails where feasible. Because it could take several



- NATURAL ZONE**
- OUTSTANDING NATURAL FEATURE
  - NATURAL ENVIRONMENT
  - PROTECTED NATURAL AREA
  - ECOLOGICAL RESERVE (TO 1 NAUTICAL MILE OFFSHORE)
- HISTORIC ZONE (ENTIRE PROPERTY)**
- PRESERVATION/ADAPTIVE USE
  - HISTORIC SITE - STATUS UNDETERMINED
- DEVELOPMENT ZONE**
- ADMINISTRATIVE DEVELOPMENT/VISITOR SERVICES
  - CAMPGROUND
  - FOUR-WHEEL-DRIVE TRAILS (ADMINISTRATIVE USE)
  - AIRSTRIP (ADMINISTRATIVE USE)
- SPECIAL USE ZONE**
- NAVIGATIONAL AID
  - PRIVATE LANDS
- ESTABLISHED TRAIL

- SCORPION ANCHORAGE**
- DOCK (FLOATING LANDING IF FEASIBLE)
  - PICNIC AREA/RESTROOMS
  - RANGER STATION/INTERPRETIVE CENTER
  - EMPLOYEE QUARTERS
  - MAINTENANCE FACILITIES
  - CORRAL
  - MARINE INTERPRETIVE BOAT TRIPS
  - SCHEDULED BOAT SERVICE
- SCORPION VALLEY**
- CAMPGROUND/RESTROOMS/EVENING PROGRAM AREA
  - SELF-GUIDING INTERPRETIVE TRAIL
- SMUGGLERS COVE**
- RANGER STATION/RANCHING INTERPRETIVE CENTER IN HISTORIC STRUCTURE
  - PICNIC AREA/RESTROOMS (MAY BE USED AS A SMALL CAMPGROUND UNDER PHASED ACQUISITION)
- BACKCOUNTRY**
- ESTABLISHED TRAIL SYSTEM - STAY-ON-TRAIL POLICY
  - ESTABLISHED CAMPSITES - LOCATIONS SUBJECT TO FURTHER STUDY - ADIRONDACK-TYPE SHELTERS MAY BE PROVIDED IF TENT CAMPING IMPACTS TEND TO SPREAD
  - SENSITIVE AREAS - MAY BE CLOSED TO USE ON SEASONAL BASIS
  - AIRSTRIP AND JEEP TRAIL FOR ADMINISTRATIVE AND EMERGENCY USE ONLY



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# MANAGEMENT ZONING / GENERAL DEVELOPMENT

EASTERN SANTA CRUZ ISLAND  
CHANNEL ISLANDS NATIONAL PARK

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

NOTE: EXISTING STRUCTURES TO BE USED WHERE FEASIBLE FOR MANAGEMENT AND VISITOR FACILITIES. OFFSHORE ISLETS AND ROCKS (INCLUDING GULL ISLAND AND SCORPION ROCKS) CLOSED TO VISITOR USE.

years to study routes and develop the complete system, trails will first be constructed in areas that will receive the most visitor use and where needed to protect sensitive resources.

Limited backcountry camping will be permitted on a reservation basis at designated campsites. These sites will be selected by park resource managers by evaluating individual sites, their ability to withstand use, and exposure to weather. Primitive toilet facilities will be provided, and fires will not be allowed. An overnight backcountry capacity will be established in the park's backcountry management plan and may vary seasonally or annually.

If impacts from camping at designated sites tend to spread over a greater area, shelters will be considered for designated backcountry campsites (for example, Adirondack-type shelters with three sides and six to eight bunks). These would eliminate the need for backpackers to carry tents, and more importantly, they would eliminate the random pitching of tents.

Interim Visitor Use during Phased Land Acquisition. While the land remains in private ownership, it is difficult to predict how uses may change. Since the Land Protection Plan was approved in February 1984, the owners have terminated sheep ranching and opened a hunting club. At their request the Park Service established the temporary ranger station to provide resource protection and law enforcement. The owners are said to be considering permitting camping on a fee basis. The National Park Service is cooperating with the owners to the extent feasible to provide resource protection and to learn about the varied resources and potential visitor use. (See the Land Protection Plan for further discussion of interim use if the land is acquired in phases.)

## Santa Rosa Island

Santa Rosa offers diverse resources--magnificent beaches, woodlands, fascinating sculptured canyons, extensive grasslands, outstanding intertidal areas, and unique plant communities. Some areas are fragile in the sense of being sensitive to human use, and some may require seasonal closure to protect wildlife during the breeding season, but large areas can readily accommodate visitor use.

Santa Rosa is more suited to extended visits by people who are dropped off and picked up by public transportation, although day use will be feasible for private and charter boat visitors. (The rugged shoreline and the scarcity of safe anchorages, meaning that boats should never be left unattended, will contribute to relatively low usage.) For those who are in good physical condition, Santa Rosa is an ideal island for backpacking; routes can be planned for a trip of a few days, a week, or longer, although the availability of drinking water may be a problem. A fairly extensive four-wheel-drive road system follows logical routes to most areas of the island, and it will be used as the basis for an initial hiking trail system. The development of a complete trail system on the island will take several years. Some areas may be closed to visitor use to protect sensitive natural and cultural resources.

Existing structures on Santa Rosa may provide the opportunity to develop an environmental education center and research field station, a hostel, or similar type of overnight facilities for organized groups and individuals. Several locations are suitable for more traditional campgrounds.

Planning for long-term visitor use on Santa Rosa Island is complicated by the unknown intentions of the current owners. The owners may reserve rights to continue ranching and associated business enterprises. The National Park Service has the authority to deny these rights, but to do so could significantly increase the cost of land acquisition.

The plan is predicated on the full ownership of the island by the National Park Service without continued ranching. With minor variations, most of the proposals could be implemented even if the owners wanted to continue ranching. Under this condition, however, visitor use capacities might be lower, backcountry use would be more restricted, and most if not all of the main ranch structures would probably not be available for use by either visitors or the Park Service.

Visitation to Santa Rosa Island will probably remain low, primarily because of the distance from the mainland and related transportation costs. If full loads on planes (10 passengers) and small boats (25-50 passengers) could be achieved, then costs could be reduced somewhat. Nevertheless, visits to the island will not be inexpensive, and the island will probably attract mostly private boaters. The predominant activity will presumably be backpacking in a wilderness-like setting.

Bechers Bay. At the main ranch complex, the buildings, cultivated fields, and pastures will be preserved as a historic ranching scene. Cattle and horses will continue to graze, and some of the ranch functions

will continue as part of the interpretive program. The facilities are on a long, narrow bench, and they have generally been well maintained except for a couple of old army barracks used for storage.

Access will be by scheduled and chartered boat and aircraft. General aviation traffic will not be allowed. Pleasure boaters will be able to land at the pier, but long-term tieups will not be permitted; moorings will not be provided by the Park Service.

The old ranch house has had several additions over the years, but it retains considerable integrity. It is currently used by the owners and their guests and by the commercial hunting operation. Other structures vary in age, and some are fairly new, such as the foreman's house and the bunkhouse. If the owners do not continue to operate the ranch, the various structures will be used for interpretive programs and NPS management needs, including employee housing, maintenance, and a small visitor center. The structures need to be evaluated individually and collectively for their historic merit and National Register eligibility.

One potential historic site, the Nidever Cave, is threatened by a ranch road passing directly above it. Further studies are needed to determine the best means of preserving this site. If feasible, the road will be relocated or its use discontinued.

A campground (initially 15 sites) will be located in Windmill Canyon, approximately 1 mile from both the pier and the airstrip and away from the ranching scene. A central comfort station and an evening program area will be provided. Further studies will be needed to identify specific locations, taking into account seasonal wind conditions. Potential for expansion will be a consideration in site selection. Existing utility systems (water, power, sewer, communications) have not been examined, but they will probably need upgrading for public use. Within 2 miles of the campground are numerous natural and cultural features of interest to visitors (the actual hiking distance could be considerably more than 2 miles due to the rugged terrain). Among the features are the Torrey pine groves, Lobos Canyon, Carrington pasture, Nidever Cave, and the attractive upper Windmill Canyon area. A self-guiding interpretive trail will be provided in Windmill Canyon and adjacent areas.

If the owners elect and are granted the right to continue ranching, a variety of options for use of the main ranch will be explored. The National Park Service will as a minimum need a ranger station, which may have to be provided in a temporary facility if ranch structures are not available. The campground in Windmill Canyon and the ranger station could be sited so as not to interfere with ranching operations.

Johnsons Lee. If further studies indicate it is feasible, the extensively developed military base at Johnsons Lee may be adapted to serve as an environmental education center and a research field station. Many of the structures and the pier have been heavily vandalized and may be beyond economical repair; other structures may be renovated for further use, although the cost may be high. The structures will have to be evaluated for historical significance and examined by engineers and architects before any adaptive use can be allowed. This will have to await purchase

or acquisition of rights to use the structures. Some structures are rapidly deteriorating and may be lost before the purchase has been completed.

Initially, the National Park Service will renovate one of the structures to provide quarters for park personnel. After studies to determine which other structures can be renovated, a comprehensive design plan for the area will be prepared. If it is decided to proceed with the plan, a major demolition/cleanup program will be initiated. When the area is safe, public use will be permitted. To allow for overnight stays, either a small campground will be developed, or one of the existing dormitories may be operated as a hostel-type facility. Safe docking facilities will be required because the principal visitor access will be by boat. Helicopter access will be possible for administrative purposes.

If the development of a research field station is feasible, it will be operated in cooperation with private educational institutions or foundations, and as a complement to existing facilities on Santa Cruz and Santa Catalina islands. It will provide an operating base for terrestrial studies on Santa Rosa and San Miguel and for marine research around the northern Channel Islands and the important Cortez Ridge area. An interpretive center will be incorporated into the research field station. The field station will also serve as an environmental education center for groups coming to the island to study.

The condition of any existing utilities is not known, but presumably all systems will have to be replaced. On-site water sources were inadequate for the large military installation, but a well may meet proposed NPS needs.

If existing structures cannot be adaptively used as an environmental education center and research field station, then one structure will be retained for use as a ranger station, and other unneeded structures will be removed. The area will be restored to natural conditions to the extent feasible, and a campground will be developed. In that case a pier will not be provided, and landings will be made by skiff.

China Camp. The facilities at China Camp, an outpost of the main ranch, appear to have historic significance. The cabins, corral, and pasture will be retained for ranger patrol use. This adaptive use will allow a portion of the historic ranching scene to be preserved.

Backcountry. The island's backcountry, over 95 percent of the land area, will be managed as a natural area. Exotic animal species will be removed, and vegetation will be permitted to return to presumably natural conditions (that is, before the influence of European man). In some instances, active resource management techniques may be required to control exotic vegetation and to allow for revegetation by native species.

Some of the existing roads may be retained for management use until the island is returned to more natural conditions, at which time most of these roads will be converted to trails or restored to more natural conditions. Similarly, backcountry airstrips may be used during restoration efforts and then returned to natural conditions. However, helicopter use is more

likely because of the deteriorated condition of many of the airstrips. Only the Bechers Bay strip will be retained for long-term use.

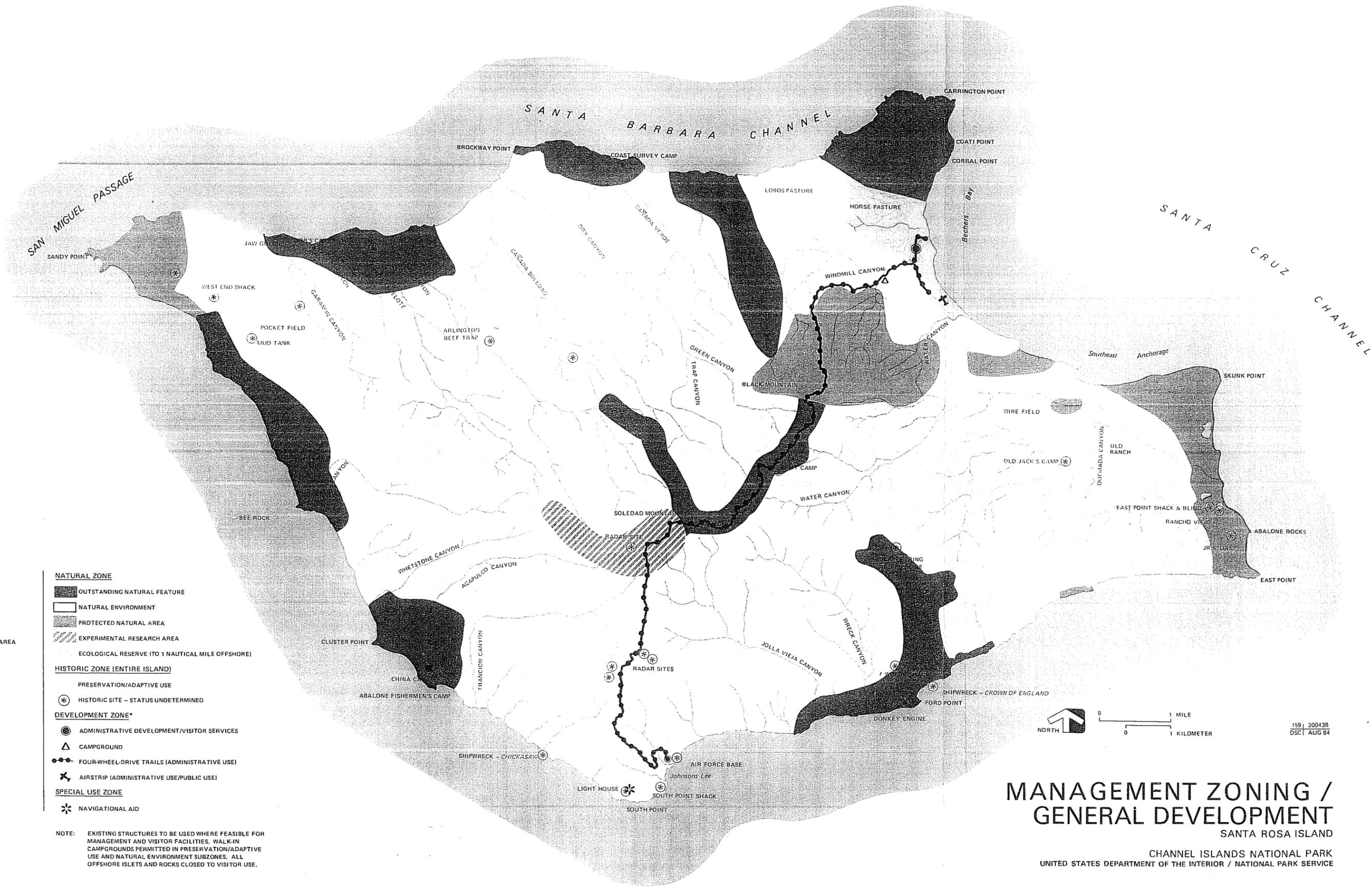
Low-impact camping will be permitted at designated sites throughout most of the backcountry. However, protected natural areas and other sensitive natural and cultural resource areas will be closed to camping. Open fires will not be permitted. A backcountry management plan, to be prepared by the park staff, will contain camping regulations and capacities for various zones. Camping impacts will be monitored. Primitive toilet facilities will be developed at designated campsites. If feasible, water supplies will be developed at several backcountry locations.

Depending on use patterns and management problems, a seasonal ranger station may be needed on the west end of the island. A specific location has not been selected.

Backcountry use may be limited if ranching continues or if NPS acquisition is phased. The implementation of any proposals will be preceded by extensive research, and park personnel will need to become thoroughly familiar with the island.

Although most visitors are expected to come ashore at Bechers Bay and Johnsons Lee, many beaches provide good landing areas. If necessary, landings may be prohibited in some areas either seasonally or permanently to protect sensitive terrestrial and intertidal resources. Overnight use will require a permit, and backcountry camping regulations will be enforced. Because of the limited safe anchorages around Santa Rosa, boats should not be left unattended.

Interim Visitor Use during Phased Land Acquisition. If Santa Rosa Island is acquired in phases, Johnsons Lee and some high mountain lands containing island oaks are proposed as the first parcels for purchase. Visitor use in the Johnsons Lee area would be restricted to some shoreline areas and along the road to the high point of the island. As more land was acquired, visitor use opportunities would be expanded, and eventually the focal point for visitor access and use would shift to the northeastern side of the island. However, this change in use could take years to implement. (See the Land Protection Plan for further discussion of interim use if the island is acquired in phases.)



- BECHERS BAY**
- MAIN RANCH – Historic Ranching Scene
  - DOCK AND AIRSTRIP
  - VISITOR CONTACT STATION
  - EMPLOYEE QUARTERS
  - MAINTENANCE FACILITIES
  - CORRAL/PASTURE
- WINDMILL CANYON**
- CAMPGROUND/RESTROOMS/EVENING PROGRAM AREA
  - SELF-GUIDING INTERPRETIVE TRAIL

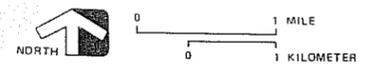
- JOHNSONS LEE**
- RANGER STATION
- FOLLOWING PROPOSALS SUBJECT TO FURTHER EVALUATION AFTER ACQUISITION OF PRIVATE PROPERTY
- RESEARCH FIELD STATION/ENVIRONMENTAL EDUCATION CENTER
  - DOCK RENOVATION OR REPLACEMENT
  - CAMPGROUND OR HOSTEL (IN CONJUNCTION WITH EDUCATION CENTER)

- CHINA CAMP**
- HISTORIC STRUCTURES AND SETTING
  - RANGER PATROL CABIN

- BACKCOUNTRY**
- TRAIL SYSTEM
  - PRIMITIVE CAMPSITES
  - DEFINED SENSITIVE AREA CLOSURE ZONES (MAY BE SEASONAL)
  - EXCESS ROADS DBLITERATED

- NATURAL ZONE**
- OUTSTANDING NATURAL FEATURE
  - NATURAL ENVIRONMENT
  - ▨ PROTECTED NATURAL AREA
  - ▧ EXPERIMENTAL RESEARCH AREA
  - ECOLOGICAL RESERVE (TO 1 NAUTICAL MILE OFFSHORE)
- HISTORIC ZONE (ENTIRE ISLAND)**
- PRESERVATION/ADAPTIVE USE
  - ⊛ HISTORIC SITE – STATUS UNDETERMINED
- DEVELOPMENT ZONE\***
- ⊙ ADMINISTRATIVE DEVELOPMENT/VISITOR SERVICES
  - △ CAMPGROUND
  - ⚙️ FOUR-WHEEL-DRIVE TRAILS (ADMINISTRATIVE USE)
  - ✈️ AIRSTRIP (ADMINISTRATIVE USE/PUBLIC USE)
- SPECIAL USE ZONE**
- ✳️ NAVIGATIONAL AID

**NOTE:** EXISTING STRUCTURES TO BE USED WHERE FEASIBLE FOR MANAGEMENT AND VISITOR FACILITIES. WALK-IN CAMPGROUNDS PERMITTED IN PRESERVATION/ADAPTIVE USE AND NATURAL ENVIRONMENT SUBZONES. ALL OFFSHORE ISLETS AND ROCKS CLOSED TO VISITOR USE.



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# MANAGEMENT ZONING / GENERAL DEVELOPMENT

SANTA ROSA ISLAND  
CHANNEL ISLANDS NATIONAL PARK  
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE



## San Miguel Island

The visitor experience on San Miguel Island is primitive--there are no scheduled boat services and almost no visitor facilities, in addition there are long periods of inclement weather. For those who do get to San Miguel, the island offers a variety of unique features. The present cross-island trail leads visitors through several vegetation zones, past the caliche forest (approximately 3½ miles from Cuyler Harbor), and ends above Point Bennett, which provides a spectacular view of a marine mammal rookery. Another route will allow visitors to return to Cuyler Harbor by way of Simonton Cove. This will not be a formal developed trail, but the route will be marked to ensure that sensitive areas are avoided, and in some areas plank bridges will be constructed to cross canyons and minimize erosion of the unstable canyon walls. Interpretation on cross-island trips will continue to emphasize the varied plant and animal life and the paleontological, archeological, and geological features.

In the Cuyler Harbor/Lester Ranch area visitors can see the ruins of former ranch buildings, observe the devastating effects of the ranching activities, and learn about the unique plant and animal community associations. The primary interpretive theme will be an understanding of the ecological sensitivity of a remote island.

Because the visitor impacts to date have been minimal, and the island is recovering from the devastating effects of past grazing, day use will be permitted to fluctuate within certain limits so that charter boats with higher passenger capacities can make trips to San Miguel. Daily visitation in the Cuyler Harbor area should generally not exceed 35 to 50 persons, but permission to land larger groups will be allowed periodically. These landings will be on a scheduled basis under permit from the National Park Service and will only be allowed when NPS personnel are on the island (or can accompany the boat).

Visitors will be required to stay on trails. Whether or not visitors will have to be accompanied by NPS personnel, except in the Point Bennett area, will be at the discretion of the island ranger, operating under guidelines established by the superintendent.

Subject to concurrence by the U.S. Navy, limited overnight visitor use will be permitted. Camping will be allowed initially in the Lester Ranch area on an experimental basis. A decision to continue camping and to provide a permanent campground will be based on visitor compliance with low-impact camping regulations and an assessment of impacts. The initial capacity will be limited to 15 persons, with increases possible if impacts are minimal. No fires will be permitted. Camping will be permitted only when NPS personnel are on duty to supervise visitor activities.

Research personnel will continue to be allowed to camp overnight in the area of the tent ranger station in Nidever Canyon and the research station above Point Bennett.

When San Miguel was opened to visitor use in 1978, temporary facilities were erected to house the island ranger. Existing roads have been used for trails, and only the National Marine Fisheries Service structures on

and above Point Bennett can be classified as permanent. For resource protection, personnel will continue to be stationed at Point Bennett and Cuyler Harbor on a year-round basis, subject to funding availability, with additional interpreters or guides on a seasonal basis as warranted by visitation. When research personnel are working at Point Bennett, it will not be necessary to have a full-time ranger stationed there, unless visitors are present. However, for personal safety and resource protection, at least two people should be on the island at all times.

Two permanent facilities and a primitive campsite will be provided on San Miguel. The existing research station on Point Bennett will, when it has outlived its useful life, be replaced with a ranger/research station to accommodate three or four researchers and the NPS ranger. The facility will be designed to blend more with the natural setting. It will be operated cooperatively by the various agencies using it and will accommodate various functions. When the number of personnel exceeds the building capacity, tents will be permitted in the immediate vicinity; camping below the bluff on Point Bennett is no longer permitted.

The second facility will be a permanent residence for the island ranger in the Lester Ranch area near Cuyler Harbor. This will be similar in size to the ranger station proposed for Santa Barbara Island and will have a visitor contact area and storage space. Additional personnel, when needed on the island, will live in tents at the site of the present ranger station in Nidever Canyon or in the proposed campsite area.

Facilities should be innovative, and energy-saving features should be incorporated into the design, although the initial cost may be higher than for a prefabricated structure assembled on the island. The Lester Ranch site lends itself to a dugout, sod roof structure, which would be naturally insulated and would have reduced exposure to the constant winds.

Alternative energy sources will be used to provide necessary power to both facilities; toilet facilities will be self-contained. Water will continue to be hauled from the mainland but can be supplemented by springwater for nonpotable uses. Further consideration will be given to the development of a well and to graywater disposal methods when the facilities are designed.

Routine trail maintenance and trail erosion control measures will continue. Additional trails will generally not be constructed, but routes for hiking will be identified and may require construction of rustic bridges where deep washes (canyons) cannot be avoided and crossing will increase erosion problems. On some of the more popular hiking routes, formal trails may be used to prevent erosion and localize impacts.

All of the use and access proposals for San Miguel Island will require concurrence by the U. S. Navy and an amendment to the memorandum of understanding between that agency and the Department of the Interior. All public use will require a permit from the National Park Service; use will continue to be prohibited or restricted during military operations.

**POINT BENNETT AREA**

- RESEARCH/RANGER STATION
- TRAIL TO OVERLOOK
- OVERLOOK WITH SPOTTING SCOPES
- RESEARCH BOAT LAUNCH/HAULOUT FACILITY
- RESEARCH BLINDS, STORAGE SHEDS, MISC. FACILITIES
- HELICOPTER LANDING

**DRY LAKE**

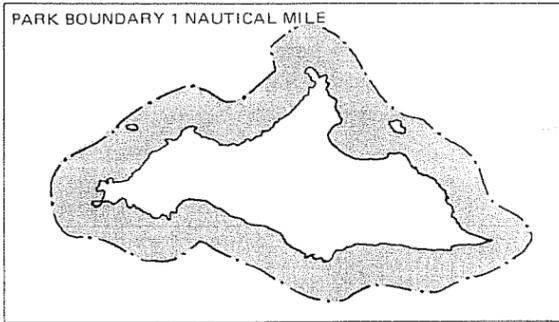
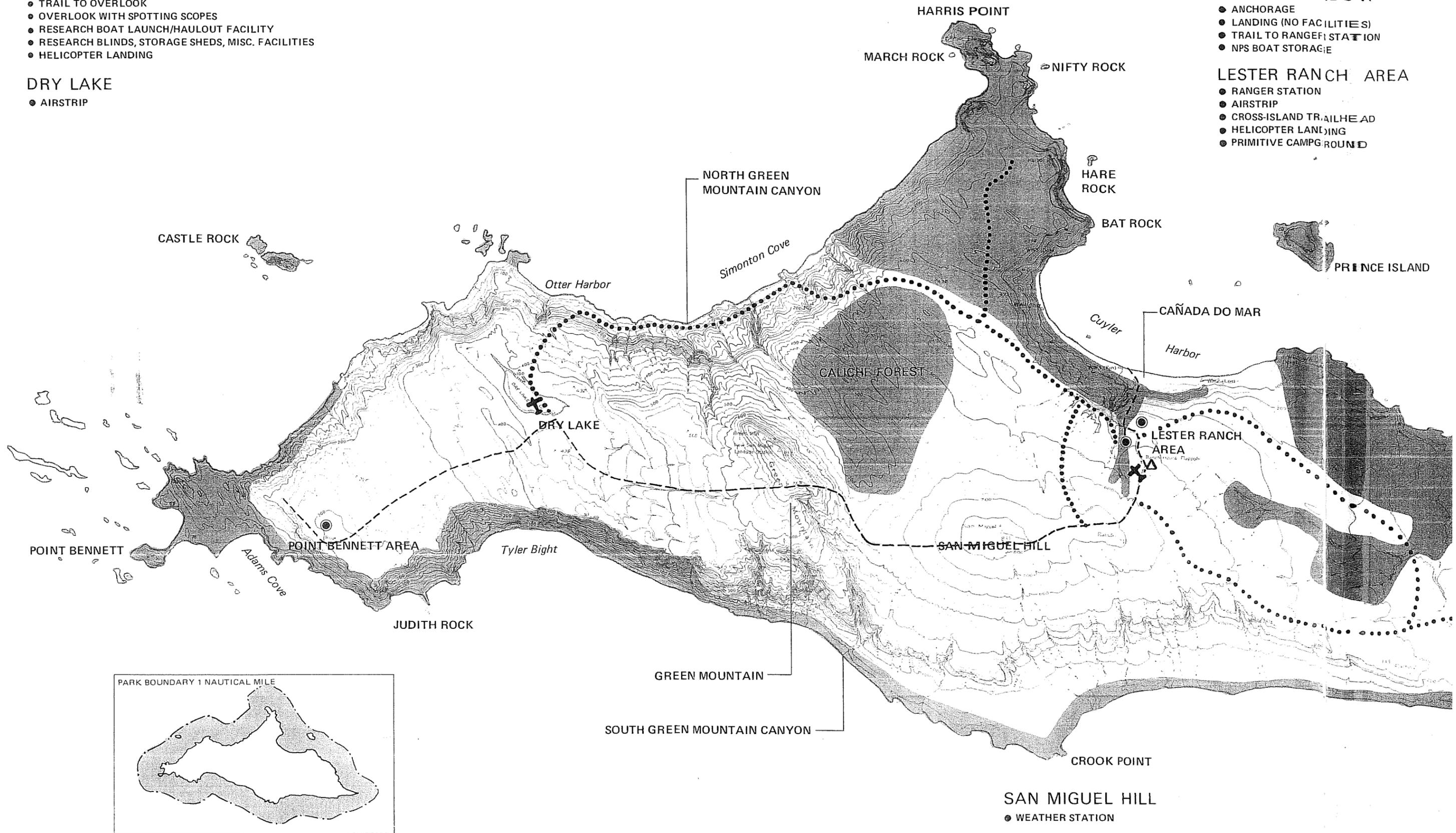
- AIRSTRIP

**CUYLER HARBOR**

- ANCHORAGE
- LANDING (NO FACILITIES)
- TRAIL TO RANGE STATION
- NPS BOAT STORAGE

**LESTER RANCH AREA**

- RANGER STATION
- AIRSTRIP
- CROSS-ISLAND TRAILHEAD
- HELICOPTER LANDING
- PRIMITIVE CAMPGROUND





## Santa Barbara Island

Although Santa Barbara is the smallest of the islands, it offers visitors the opportunity to learn about some spectacular resources and to see how an island recovers from past misuses. Throughout much of the year the experience on Santa Barbara is one of isolation and solitude, although on holiday weekends yachters may come here to escape the crowds around Santa Catalina Island. Because there is limited scheduled transportation service to the island, most of the use is by private boaters, but educational and special interest groups do charter boats to the island every year. Santa Barbara has a small ranger station and visitor contact area, a campground, and a few miles of developed trail.

Visitors will have a variety of experiences available depending on the time of year--the spring wildflower display can be striking and bird-watching is particularly good in the spring and fall. But many of the outstanding resources are there year-round, little observed by the average visitor. A short, self-guiding trail has been developed near the campground. A trail guide points out features observable at numbered markers along the trail. A comprehensive island guide will be available for those who wish to learn more about the island. Ideally, one interpreter will be on the island whenever visitors are present, with additional interpreters available during peak visitation periods. This will free the island ranger to contact boaters and enforce regulations. Because the island has so many sensitive resources, perhaps more than any of the other Channel Islands in relation to its size, it may be necessary to close some areas to visitors during critical seasons. At their discretion, the island rangers guide groups along carefully selected routes into normally closed areas during noncritical seasons. Advance planning by special interest groups is highly recommended.

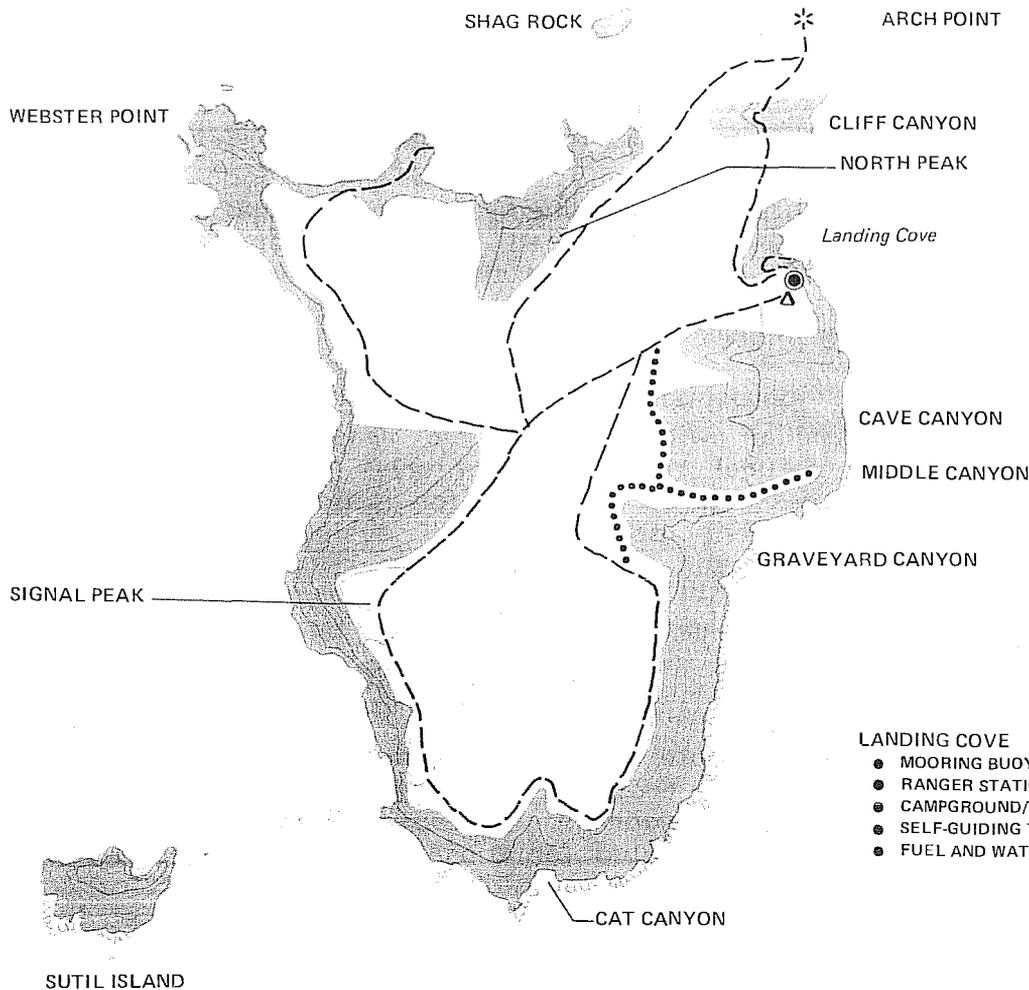
As at Anacapa, the offshore waters are within an ecological reserve and are subject to regulations of the California Department of Fish and Game. Sport fishing, diving, and related activities, as well as commercial harvest of marine resources, will continue to be allowed, although somewhat restricted.

No more than 100 visitors are permitted on the island at one time. Although use is not currently a problem, it may be necessary to restrict private boaters from landing during busy periods, such as holiday weekends, when the concession tour boat is scheduled to bring full loads of passengers to the island. It is currently estimated that only about 40 percent of the private boaters who visit Santa Barbara Island actually choose to go ashore. The number of campers is limited to no more than six discrete groups, with a maximum of 30 people for the entire campground.

The facilities on Santa Barbara need extensive renovation or replacement (the dock structure was destroyed in the 1982-83 winter storms), and a comprehensive design is needed for the small developed area. During the preparation of this design, the camping capacity and visitor experience will be carefully evaluated. Generally, established capacities seem to be appropriate, trails are in good condition (although winter damage does occur), and vegetation recovery appears to be progressing satisfactorily

since the elimination of rabbits. The helipad will be retained in the developed area.

The new ranger facility will be designed to be less obtrusive. It will be a single-family residence with a small visitor contact office, storage space, and quarters for a relief ranger. When other personnel need to remain on the island for several days, tents will be used in the campground, reducing the number of visitors permitted to camp at that time. Boardwalks or other surfacing will probably be required to define walkways and use areas to minimize the problems of mud, erosion, and vegetation destruction. Redevelopment will be confined to the already disturbed area; both graywater and sewage disposal methods will be improved.



**NATURAL ZONE**

- NATURAL ENVIRONMENT
- PROTECTED NATURAL AREA
- ECOLOGICAL RESERVE (TO 1 NAUTICAL MILE OFFSHORE)

**HISTORIC ZONE (ENTIRE ISLAND)**

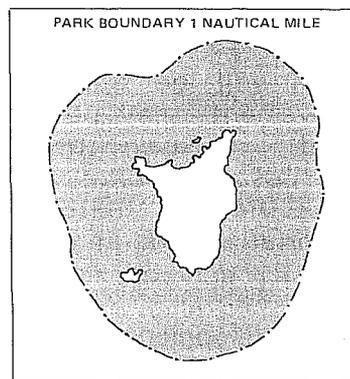
**DEVELOPMENT ZONE**

- ADMINISTRATIVE DEVELOPMENT/VISITOR SERVICES
- CAMPGROUND

**SPECIAL USE ZONE**

- NAVIGATIONAL AID

- ESTABLISHED TRAIL (SUBJECT TO SEASONAL CLOSURE)
- DESIGNATED ROUTE FOR RANGER-GUIDED WALKS



159 | 20015D  
DSC | AUG 84

**MANAGEMENT ZONING /  
GENERAL DEVELOPMENT**

SANTA BARBARA ISLAND

CHANNEL ISLANDS NATIONAL PARK  
UNITED STATES DEPARTMENT OF THE INTERIOR /  
NATIONAL PARK SERVICE

NOTE: LANDINGS PERMITTED ONLY AT LANDING COVE; NO PETS ALLOWED. ALL VISITORS MUST STAY ON ESTABLISHED TRAILS UNLESS ACCOMPANIED BY A RANGER. ALL OFFSHORE ISLETS, ISLANDS, AND ROCKS CLOSED TO VISITATION.

## IMPLEMENTATION

Many elements of the plan are directly related to the land acquisition process for eastern Santa Cruz and Santa Rosa and cannot be implemented until sufficient rights are obtained to permit management actions. Extensive work must be accomplished before the private lands can be opened to the general public. Once the private lands or rights of use are acquired, the process of opening the lands to public use will be undertaken in three phases.

Phase I--NPS personnel will move to the islands to become thoroughly familiar with the diverse resources. More definitive cultural and natural resource inventories will be conducted, and cultural resources will be evaluated for National Register eligibility. Resource management personnel will evaluate potential campsite locations, trail routes, sensitive areas where access may have to be restricted, and carrying capacities. A resource management plan will be prepared. Limited public use may be permitted so that use patterns and public desires for facilities and programs can be evaluated.

Phase II--Based on data obtained in phase I, proposed actions will be reevaluated and modified if necessary. Priorities will be established, and development concept plans and environmental assessments will be initiated for those areas where facilities will be provided. These plans will guide the cleanup, restoration, and improvements required for public safety and visitor use, including support facilities. Resource management programs will be initiated. Public use may be very limited or prohibited during this phase because of safety hazards.

Phase III--As necessary improvements are completed, portions of the islands will be opened to the public. Because funding for these improvements may be spread over many years, public use may remain limited. Preservation or restoration of natural and cultural resources will take priority over the provision of visitor facilities and services. Visitor use will be monitored by resource management personnel, and if unanticipated impacts occur, use patterns or capacities may be modified.

Costs for development projects cannot be estimated because visits to the islands have been severely limited by funding and restrictions imposed by the owners. Similarly, priorities for actions cannot be established. Land acquisition will probably be phased and may not necessarily follow priorities recommended in the Land Protection Plan. Proposals to use existing facilities may have to be revised because by the time they have been acquired, the structures may have deteriorated beyond the point where they can be rehabilitated. Thus, the implementation of the proposed plan will necessarily be based on learning, experimenting, evaluating, and revising proposed actions as necessary.

appendixes / bibliography / planning team



APPENDIX A: LEGISLATION

Public Law 96-199  
96th Congress

An Act

Mar. 5, 1980  
[H.R. 3757]

National Parks  
and Recreation  
Act of 1978,  
amendment.

To establish the Channel Islands National Park, and for other purposes.

*Be it enacted by the Senate and House of Representatives of the  
United States of America in Congress assembled,*

TITLE I

Title I applies to other areas of the national park system and has been omitted.

TITLE II

Channel Islands  
National Park,  
Calif.  
Establishment.  
16 USC 410ff.

SEC. 201. In order to protect the nationally significant natural, scenic, wildlife, marine, ecological, archaeological, cultural, and scientific values of the Channel Islands in the State of California, including, but not limited to, the following:

- (1) the brown pelican nesting area;
- (2) the undisturbed tide pools providing species diversity unique to the eastern Pacific coast;
- (3) the pinnipeds which breed and pup almost exclusively on the Channel Islands, including the only breeding colony for northern fur seals south of Alaska;
- (4) the Eolian landforms and caliche;
- (5) the presumed burial place of Juan Rodriguez Cabrillo; and
- (6) the archaeological evidence of substantial populations of Native Americans;

There is hereby established the Channel Islands National Park, the boundaries of which shall include San Miguel and Prince Islands, Santa Rosa, Santa Cruz, Anacapa, and Santa Barbara Islands, including the rocks, islets, submerged lands, and waters within one nautical mile of each island, as depicted on the map entitled, "Proposed Channel Islands National Park" numbered 159-20,008 and dated April 1979, which shall be on file and available for public inspection in the offices of the Superintendent of the park and the Director of the National Park Service, Department of the Interior. The Channel Islands National Monument is hereby abolished as such, and the lands, waters, and interests therein withdrawn or reserved for the monument are hereby incorporated within and made a part of the new Channel Islands National Park.

Channel Islands  
National  
Monument.  
Abolishment.

16 USC 410ff-1.

SEC. 202. (a) Within the boundaries of the park as established in section 201, the Secretary of the Interior (hereinafter referred to as the "Secretary") is authorized to acquire lands, waters, or interests therein (including but not limited to scenic easements) by donation, purchase with donated or appropriated funds, transfer from any Federal agency, exchange, or otherwise. Unless the property is wholly or partially donated, the Secretary shall pay to the owner the fair market value of the property on the date of its acquisition, less the fair market value on that date of any right retained by the owner. Any lands, waters, or interests therein owned by the State of California or any political subdivision thereof shall not be acquired. Notwithstanding any other provision of law, Federal property located within the boundaries of the park shall with the concurrence of the head of the agency having custody thereof, be transferred to the administrative jurisdiction of the Secretary for the purposes of the park: *Provided*, That the Secretary shall permit the use of federally owned park lands and waters which (i) have been transferred from another Federal agency pursuant to this section or which (ii) were the subject of a lease or permit issued by a Federal agency as of the date of enactment of this title, for essential national security missions and

California lands  
or interests,  
exemption.

for navigational aids, subject to such terms and conditions as the Secretary deems necessary to protect park resources.

(b) Notwithstanding the acquisition authority contained in subsection 202(a), any lands, waters, or interests therein, which are owned wholly or in part, by or which hereafter may be owned by, or under option to, the National Park Foundation, The Nature Conservancy (including any lands, waters, or interests therein which are designated as "Nature Conservancy Lands" on the map referred to in section 201 of this title) or any similar national, nonprofit conservation organization, or an affiliate or subsidiary thereof shall be acquired only with the consent of the owner thereof: *Provided*, That the Secretary may acquire such property in accordance with the provisions of this Act if he determines that the property is undergoing or is about to undergo a change in use which is inconsistent with the purposes of this title.

Nature Conservancy Lands, acquisition.

(c) With respect to the privately owned lands on Santa Rosa Island, the Secretary shall acquire such lands as expeditiously as possible after the date of enactment of this title. The acquisition of these lands shall take priority over the acquisition of other privately owned lands within the park.

Santa Rosa Island lands, priority acquisition.

(d)(1) The owner of any private property may, on the date of its acquisition and as a condition of such acquisition, retain for himself a right of use and occupancy of all or such portion of such property as the owner may elect for a definite term of not more than twenty-five years, or ending at the death of the owner, or his spouse, whichever is later. The owner shall elect the term to be reserved. Any such right retained pursuant to this subsection with respect to any property shall be subject to termination by the Secretary upon his determination that such property is being used for any purpose which is incompatible with the administration of the park or with the preservation of the resources therein, and it shall terminate by operation of law upon notification by the Secretary to the holder of the right, of such determination and tendering to him the amount equal to the fair market value of that portion which remains unexpired.

(2) In the case of any property acquired by the Secretary pursuant to this title with respect to which a right of use and occupancy was not reserved by the former owner pursuant to this subsection, at the request of the former owner, the Secretary may enter into a lease agreement with the former owner under which the former owner may continue any existing use of such property which is compatible with the administration of the park and with the preservation of the resources therein.

Right of use and occupancy not reserved by former owner, lease agreement.

(3) Any right retained pursuant to this subsection, and any lease entered into under paragraph (2), shall be subject to such access and other provisions as may be required by the Secretary for visitor use and resources management.

SEC. 203. (a) The Secretary is directed to develop, in cooperation and consultation with the Secretary of Commerce, the State of California, and various knowledgeable Federal and private entities, a natural resources study report for the park, including, but not limited to, the following:

Natural resources study report, development. 16 USC 410ff-2.

(1) an inventory of all terrestrial and marine species, indicating their population dynamics, and probable trends as to future numbers and welfare;

(2) recommendations as to what actions should be considered for adoption to better protect the natural resources of the park. Such report shall be submitted within two complete fiscal years from the date of enactment of this title to the Committee on Interior and

Submittal to congressional committees.

Insular Affairs of the United States House of Representatives and the Committee on Energy and Natural Resources of the United States Senate, and updated revisions of such report shall be similarly submitted at subsequent two year intervals to cover a period of ten years after the date of enactment of this title.

State of California cooperative agreements for law enforcement, administration.

(b) The Secretary is authorized and directed to enter into and continue cooperative agreements with the Secretary of Commerce and the State of California for the enforcement of Federal and State laws and regulations on those lands and waters within and adjacent to the park which are owned by the State of California. No provision of this title shall be deemed to affect the rights and jurisdiction of the State of California within the park, including, but not limited to, authority over submerged lands and waters within the park boundaries, and the marine resources therein.

16 USC 410ff-3.

SEC. 204. (a) Subject to the provisions of section 201 of this title, the Secretary shall administer the park in accordance with the provisions of the Act of August 25, 1916 (39 Stat. 535), as amended and supplemented (16 U.S.C. 1 et seq.). In the administration of the park, the Secretary may utilize such statutory authority available for the conservation and management of wildlife and natural and cultural resources as he deems appropriate to carry out the purposes of this title. The park shall be administered on a low-intensity, limited-entry basis.

(b) In recognition of the special fragility and sensitivity of the park's resources, it is the intent of Congress that the visitor use within the park be limited to assure negligible adverse impact on the park resources. The Secretary shall establish appropriate visitor carrying capacities for the park.

Comprehensive general management plan, submittal to congressional committees.

(c)(1) Within three complete fiscal years from the date of enactment of this title, the Secretary, in consultation with The Nature Conservancy and the State of California, shall submit to the Committee on Interior and Insular Affairs of the United States House of Representatives and the Committee on Energy and Natural Resources of the United States Senate, a comprehensive general management plan for the park, pursuant to criteria stated in the provisions of section 12(b) of the Act of August 18, 1970 (84 Stat. 825), as amended (16 U.S.C. 1a-1 et seq.). Such plan shall include alternative considerations for the design and operation of a public transportation system connecting the park with the mainland, with such considerations to be developed in cooperation with the State of California and the Secretary of Transportation. The Secretary shall seek the advice of the scientific community in the preparation of said plan, and conduct hearings for public comment in Ventura and Santa Barbara Counties.

16 USC 1a-7.

Hearings.

(2) Those aspects of such a plan which relate to marine mammals shall be prepared by the Secretary of Commerce, in consultation with the Secretary and the State of California.

Federal funds, approval for expenditure.  
16 USC 410ff-4.

SEC. 205. The head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking with respect to the lands and waters within or adjacent or related to the park, and the head of any Federal agency having authority to license or permit any undertaking with respect to such lands and waters, shall, prior to the approval of the expenditure of any Federal funds on such undertaking or prior to the issuance of any license or permit, as the case may be, afford the Secretary a reasonable opportunity to comment with regard to such undertaking and shall give due consideration to any comments made by the Secretary and to

the effect of such undertaking on the purposes for which the park is established.

SEC. 206. Within three complete fiscal years from the date of enactment of this title, the Secretary shall review the area within the park and shall report to the President, in accordance with subsections 3 (c) and (d) of the Wilderness Act (78 Stat. 890), his recommendations as to the suitability or nonsuitability of any area within the park for designation as wilderness. Any designation of any such areas as wilderness shall be accomplished in accordance with said subsections of the Wilderness Act.

Review of  
park area;  
report to  
President.  
16 USC 410ff-5.  
16 USC 1132.

SEC. 207. Notwithstanding any other provision of law, no fees shall be charged for entrance or admission to the park.

16 USC 1131  
note.  
16 USC 410ff-6.

SEC. 208. The Secretary is authorized to expend Federal funds for the cooperative management of The Nature Conservancy and other private property for research, resources management, and visitor protection and use. All funds authorized to be appropriated for the purposes of the Channel Islands National Monument are hereby transferred to the Channel Islands National Park. Effective October 1, 1980, there are hereby authorized to be appropriated such further sums as may be necessary to carry out the purposes of this title, but not to exceed \$500,000 for development. From the Land and Water Conservation Fund there is authorized to be appropriated \$30,100,000 for the purposes of land acquisition. For the authorizations made in this section, any amounts authorized but not appropriated in any fiscal year shall remain available for appropriation in succeeding fiscal years.

16 USC 410ff-7.

Transfer of  
funds.  
Appropriation  
authorizations.

Approved March 5, 1980.

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**LEGISLATIVE HISTORY:**

HOUSE REPORT No. 96-119 (Comm. on Interior and Insular Affairs).  
SENATE REPORT No. 96-484 (Comm. on Energy and Natural Resources).  
CONGRESSIONAL RECORD:

Vol. 125 (1979): May 7, considered and passed House.  
Vol. 126 (1980): Feb. 18, considered and passed Senate, amended.  
Feb. 20, House concurred in Senate amendments.

**WEEKLY COMPILATION OF PRESIDENTIAL DOCUMENTS:**

Vol. 16 (1980): Mar. 5, Presidential statement.

○

## APPENDIX B: MANAGEMENT OBJECTIVES

Within the constraints of federal laws and regulations, NPS policies, and the organic act establishing the National Park Service, the superintendent and staff have prepared three primary objectives for the management of Channel Islands National Park. Within each primary objective are a series of goals or subobjectives to direct the staff in achieving the primary objective.

Obtain the maximum level of resource restoration and preservation, commensurate with the legislated purposes of the park.

Implement an orderly sequence of research, planning, development, monitoring, and management.

Cooperate with federal, state, and local governmental agencies, nongovernmental and community organizations, native American groups, and private landowners to achieve mutually identified resource management goals and to promote compatible uses within and adjacent to the park.

Develop an accurate information base to guide resource management and visitor use planning on Santa Cruz and Santa Rosa islands.

Seek rapid, fair, and equitable acquisition of those lands to be acquired, including determination of the rights of use and occupancy to be retained by the present owners.

Pending resolution of land protection funding, seek cooperative agreements or acquire sufficient rights to permit the following:

research to develop baseline data on natural and cultural resources, visitor use, and current management practices

cooperative assistance (at a landowner's request) in resource management, law enforcement, and visitor use/interpretation

an NPS presence on the islands to assist in research, planning, and management

limited low-entry public use consistent with the park's enabling legislation

Develop and implement a supplement to the natural resources management plan for the restoration of natural habitats and the preservation of genetic diversity of those areas not covered in the current plan.

Develop and implement a supplement to the cultural resources management plan for the identification, evaluation, and appropriate preservation of prehistoric and historic sites, structures, and settings.

Based on the above studies and plans, determine appropriate levels of visitation (carrying capacities) in relation to the various resources, seasons, and types of anticipated uses to be permitted.

Based on the above plans and studies, initiate public transportation and wilderness suitability studies.

Provide for visitor use and enjoyment of the park, and for visitor understanding of its unique natural and cultural resources.

Provide visitors with information, orientation, and interpretive services that will enhance their safe enjoyment and understanding of the park and will promote low-impact, nonconsumptive uses.

Provide visitors with adequate and feasible access so they can directly experience the park resources.

Encourage private enterprise to provide transportation and recreational/educational services at the lowest possible cost.

Establish, in accordance with the approved General Management Plan, any necessary administrative and visitor use facilities in identified, nonsensitive areas.

Provide off-site programs to target audiences and the general public in order to inform them about the unique values of the park and, for those who may not be able to visit the park, to bring the park to them.

Seek, through cooperative and innovative means, to make the park reasonably accessible to those special populations who may not be able to experience the park by conventional means.

Ensure long-term management of the park in accordance with the approved management plans.

Seek adequate funding to implement and continue long-term research and monitoring programs.

Seek adequate staffing to provide the minimum necessary personnel to carry out interpretation, resource management, visitor protection and services, law enforcement, and maintenance programs.

Seek assistance from the scientific community in conducting research programs that directly address park management problems or needs.

Employ innovative approaches to use community resources and expertise to promote the management objectives of the park.

APPENDIX C: THREATENED OR ENDANGERED SPECIES  
OCCURRING WITHIN CHANNEL ISLANDS NATIONAL PARK  
 (U.S. Fish and Wildlife Service and National Marine Fisheries Service,  
 July 1984)

LISTED SPECIES	Anacapa	Santa Cruz	Santa Rosa	San Miguel	Santa Barbara
American peregrine falcon, <u>Falco peregrinus anatum</u> (historically nested on all Channel Islands, except San Nicolas; common winter visitor)					
Bald eagle, <u>Haliaeetus leucocephalus</u> (nested historically on all Channel Islands; plans for reintroduction on some of the islands)					
California brown pelican, <u>Pelecanus occidentalis californicus</u>	X				X
California sea otter, <u>Enhydra lutris nereis</u> (historic on all islands)					
Island night lizard, <u>Klauberina riversiana</u>				X	
Santa Barbara Island live-forever, <u>Dudleya traskiae</u>				X	
<u>PROPOSED SPECIES</u>					
None					
<u>CANDIDATE SPECIES</u>					
Guadalupe fur seal, <u>Arctocephalus towsendi</u>			X		
Northern fur seal, <u>Callorhinus ursinus</u>			X		
Slug snail, <u>Binneya notabilis</u>				X	
Concentrated snail, <u>Micrarionta facta</u>				X	
Tryon's snail, <u>Micrarionta tryoni</u>				X	
Hoffmann's rock-cress, <u>Arabis hoffmannii*</u>		X	X		
Santa Catalina Island manzanita, <u>Arctostaphylos catalinae</u>	X	X			
Trask's milk-vetch, <u>Astragalus traskiae</u>				X	
Santa Barbara Island morning glory, <u>Calystegia macrostegia</u> ssp. <u>amphissima</u>					X
White-felted paint-brush, <u>Castilleja hololeuca</u>	X	X			
Soft-leaved paint-brush, <u>Castilleja mollis</u>		X			

	Anacapa	Santa Cruz	Santa Rosa	San Miguel	Santa Barbara
Santa Rosa Island live-forever, <u>Dudleya blochmaniae</u> subsp. <u>insularis</u>			X		
Candelabra live-forever, <u>Dudleya candelabrum</u>		X	X		
Santa Cruz Island live-forever, <u>Dudleya nesiotica</u>		X			
Santa Barbara Island buckwheat, <u>Eriogonum giganteum</u> var. <u>compactum</u>					X
San Miguel Island buckwheat, <u>Eriogonum grande</u> var. <u>dunklei</u>				X	
Island bedstraw, <u>Galium buxifolium</u>		X	X	X	
Showy gambelia, <u>Galvezia speciosa</u>					*
Hoffmann's slender-flower gilia, <u>Gilia tenuiflora</u> subsp. <u>hoffmannii</u>			X		
Island hazardia, <u>Hazardia cana</u>	X	X	X		
Island bush-rose, <u>Helianthemum greenei</u>		X		*	
Island alum-root, <u>Heuchera maxima</u>	X	X	X		
Santa Cruz Island silver hosackia, <u>Lotus argophyllus</u> subsp. <u>niveus</u>		X			
Fern-leaved ironwood, <u>Lyonothannus floribundus</u> subsp. <u>asplenifolius</u>		X	X		
Island barberry, <u>Mahonia (Berberis) pinnata</u> subsp. <u>insularis</u>	X	X	X		
Santa Cruz Island bush-mallow, <u>Malocothamnus fasciculatus</u> var. <u>nesioticus</u>		X			
Santa Cruz monkeyflower, <u>Mimulus brandegei</u>		*			
Short-lobed broomrape, <u>Orobanche parishii</u> subsp. <u>brachyloba</u>		X	X	X	X
Island phacelia, <u>Phacelia insularis</u> var. <u>insularis</u>			X	X	
Torrey pine, <u>Pinus torreyana</u>			X		
Santa Barbara Island cream cups, <u>Platystemon californicus</u> var. <u>ciliatus</u>					X
Hoffmann's sanicle, <u>Sanicula hoffmannii</u>		X	X		
Island rock-cress, <u>Sibara filifolia</u>		*			
Island fringe-pod, <u>Thysanocarpus conchuliferus</u>		X			

\*Possibly extinct.

## APPENDIX D: CONSULTATION AND COORDINATION IN THE PREPARATION OF THE PLAN

Various public and private interests have been consulted on a continuing basis since Channel Islands National Park was established in 1980, and these contacts are summarized below. Additional consultations will be necessary when the resource management plan for eastern Santa Cruz and Santa Rosa islands is prepared and when detailed plans are prepared to implement this management plan. Previous consultations are described in the 1980 General Management Plan.

### THE SCIENTIFIC COMMUNITY

As required by PL 96-199 and NPS policy, members of the scientific community have been and are being consulted. These consultations are discussed in the "Planning Background" section of the Draft General Management Plan Supplement / Environmental Assessment. Because of restrictions imposed by the landowners, so far only NPS scientists have been permitted to conduct research on Santa Rosa and eastern Santa Cruz.

### LANDOWNERS

Consultations with the owners of Santa Rosa and eastern Santa Cruz have occurred on a continuing basis. Less frequent consultations with the owners of the remainder of Santa Cruz Island (the Santa Cruz Island Company and the Nature Conservancy) have been conducted to discuss the planning effort and areas of mutual concern.

### THE PUBLIC

The formal public involvement program for planning at Channel Islands National Park was initiated with the distribution of a brochure early in 1982. Three public workshops were then held in June and July 1982 in Santa Barbara, Ventura, and Los Angeles, California. (The public involvement process is discussed in more detail in the "Planning Background" section of the Draft General Management Plan Supplement / Environmental Assessment.) In addition, the Draft Land Protection Plan, which forms a basis for much of the amended plan, was distributed to over 900 individuals, organizations, and agencies for comment. Sixteen comments were received, which we believe indicates that the proposals were well received.

Informal discussions between the park staff, individuals, and representatives of various organizations occur on an irregular basis. Representatives of native American interests participated in the 1980 science workshop, attended public workshops, and are consulted occasionally by park staff. The planning team met with representatives of the Brotherhood of the Tomol, Santa Barbara Indian Center, and United Chumash Council in June 1983 to discuss the alternatives being formulated and to learn about their concerns.

In April and May 1984 approximately 460 copies of the Draft General Management Plan Supplement/Environmental Assessment were distributed for public/agency comment. Public hearings were held on June 6 and 7, 1984, in Ventura and Santa Barbara, California. Approximately 140 persons attended these hearings; 27 persons made statements. Written comments were received from seven individuals, seven organizations and businesses, and eight governmental agencies.

A majority of the comments related to the management of marine resources. Most of the comments reflected a misunderstanding of the roles of the National Park Service and the state in managing the resources and a confusion between proposals in the Santa Barbara County Coastal Plan and the NPS proposals. The management objectives have been clarified in the final plan, and meetings have been held with representatives of the commercial and sportfishing industries, and with recreational boaters, to discuss mutual concerns.

Some comments from agencies and organizations were concerned with the technical accuracy of the document and with some aspects of the plan. Where applicable, these comments have been addressed in the final plan.

#### FEDERAL CONSISTENCY WITH CALIFORNIA COASTAL ZONE MANAGEMENT POLICIES

The California Coastal Commission concurred that the plan is consistent with coastal zone management policies as a general conceptual plan for recreational use and habitat restoration on the islands. The commission did express some concerns and has requested that, as more detailed plans are developed, they be reviewed for consistency. The National Park Service recognizes that the concepts are based on limited resource studies and all proposals must be reevaluated prior to implementation.

#### CONSULTATIONS ABOUT ENDANGERED SPECIES

Informal consultations have been initiated with the following agencies:

- \*U.S. Fish and Wildlife Service  
Endangered Species Office  
Sacramento, California

- \*National Marine Fisheries Service, Southwest Region  
Protected Species Program  
Terminal Island, California

- California Department of Fish and Game  
Sacramento, California

## GOVERNMENTAL AGENCIES

The following agencies have been consulted about the general planning effort and land protection strategies:

### Federal Agencies

- \*Advisory Council on Historic Preservation
  - Department of Commerce
    - National Oceanic and Atmospheric Administration
  - Department of the Interior
    - Bureau of Land Management
    - Fish and Wildlife Service
- \*Department of the Navy
  - Department of Transportation
    - Coast Guard

### State Agencies

- \*California Coastal Commission
  - South Central Coast District
- California Department of Fish and Game
- California Department of Transportation
- State Historic Preservation Officer

### Local Agencies

- \*City of Oxnard
  - Planning Department
- City of San Buenaventura
  - Department of Community Development
- \*Santa Barbara County
  - Comprehensive Planning Division
  - Resource Management Department
- \*Ventura County
  - Board of Supervisors
  - Fish and Game Commission
  - Planning Division
  - Recreation Department

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\*Comments on the Draft General Management Plan Supplement / Environmental Assessment have been received and incorporated, where appropriate, in the final plan.

APPENDIX E: FINDING OF NO SIGNIFICANT IMPACT

General Management Plan - Volume I  
Channel Islands National Park

In accordance with provisions of the National Environmental Policy Act of 1969 and the regulations of the Council on Environmental Quality (40 CFR 1508.9), an environmental assessment was prepared to evaluate possible alternatives for the future management of Channel Islands National Park. This phase of the planning effort concentrated on the levels of appropriate visitor use and the development necessary to provide for such use on eastern Santa Cruz Island and Santa Rosa Island. Broad resource management alternatives were explored for these two islands, but the level of research is currently insufficient to make specific recommendations.

Public Law 96-199 requires that the park be managed on a limited-entry/low-intensity use basis. The assessment explored alternative approaches for access and the provision of visitor services. The range of feasible alternatives was restricted by the limited-entry/low-intensity use policy. The assessment also explored alternative resource management strategies that would have permitted some continuation of ranching.

The proposed action is a conceptual plan for management over the next five to 10 years. Major components of the plan call for the preservation and restoration of natural ecosystems; the reduction or elimination of exotic species; the protection of rare, threatened, endangered, or special status species; the preservation of archeological and historical features; visitor use, primarily in previously developed or disturbed areas where existing facilities may be adapted for use; and management of over 95 percent of the land mass as a primitive natural area. Many of the projects will require specific assessment and consultations as detailed implementation plans are developed.

The primary effect of the plan, when fully implemented, will be the restoration of more natural conditions to those lands now severely affected by grazing and the opening of now private lands to limited public use. The proposed action is in compliance with applicable executive orders, laws, and regulations and is consistent with the local coastal plan. The action does not, on the basis of preliminary conceptual studies, constitute a major federal action significantly affecting the quality of the human environment.

Based on an analysis of the environmental assessment and public/agency comment, the proposed action is not one which normally requires an environmental impact statement. An environmental impact statement will not be prepared for this project.

Approved:

Howard H. Chapman  
Regional Director, Western Region

October 18, 1984

Recommended:

William H. Ehorn  
Superintendent, Channel Islands National Park

September 6, 1984

## SELECTED BIBLIOGRAPHY

- BROWN, PATRICIA E.  
1980 "Distribution of Bats of the California Channel Islands." In The California Islands, edited by Dennis M. Power, 751-56. Santa Barbara: Santa Barbara Museum of Natural History.
- COLE, D.N., AND R.K. FICHTLER  
1983 "Campsite Impact on Three Western Wilderness Areas." Environmental Management 7(3):275-88.
- DIAMOND, J.M.  
1969 "Avifaunal Equilibria and Species Turnover Rates on the Channel Islands of California." Proceedings of the National Academy of Sciences 64:57-73.
- DOBBIN, JAMES, ASSOCIATES, INC.  
1983 "Channel Islands National Marine Sanctuary Management Plan (Final Draft)." Prepared for the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Sanctuaries Programs Division. On file at Channel Islands National Park.
- GILL, AYESGA E.  
1980 "Evolutionary Genetics of California Islands Peromyscus." In The California Islands, edited by Dennis M. Power, 719-43. Santa Barbara: Santa Barbara Museum of Natural History.
- GLASSOW, MICHAEL A.  
1983 "The Status of Archaeological Research on Eastern Santa Cruz Island, California." Prepared for the National Park Service by the Office of Public Archaeology, Social Process Research Institute, University of California, Santa Barbara. On file at Channel Islands National Park.
- GLASSOW, MICHAEL A., LARRY R. WILCOXON, JOHN R. JOHNSON, AND GREGORY P. KING  
1983 "The Status of Archaeological Research on Santa Rosa Island." Prepared for the National Park Service by the Office of Public Archaeology, Social Process Research Institute, University of California, Santa Barbara. On file at Channel Islands National Park.
- GOLDSTEIN AND T. SWAIN  
1965 "The Inhibition of Enzymes by Tannins." Paytochemistry 4:185-92.
- GRINNELL, J., AND A.H. MILLER  
1944 "The Distribution of the Birds of California." Pacific Coast Avifauna 27:1-608.

- HOWELL, A.B.  
 1917 "Birds of the Islands Off the Coast of Southern California." Pacific Coast Avifauna 12:1-127.
- JENSEN, H.A.  
 1957 "A System for Classifying Vegetation in California." California Fish and Game 33:199-266.
- JOHNSON, N.K.  
 1972 "Origin and Differentiation of the Avifauna of the Channel Islands, California." Condor 74:295-315.
- JONES, H.L., AND J.M. DIAMOND  
 1976 "Short-Time-Base Studies of Turnover in Breeding Birds of the California Channel Islands." Condor 76:526-49.
- JONES, LEE, ROSE STEFANI, AND PAUL W. COLLINS  
 1981 "Birds of the Channel Islands National Park." On file at Channel Islands National Park.
- JONES, PHILIP MILLS  
 1956 Archeological Investigations on Santa Rosa Island in 1901. Edited by R.F. Heizer and A.B. Elsasser. Berkeley: University of California Press.
- KINGSBURY, J.M.  
 1960 Poisonous Plants of the United States and Canada. Englewood Cliffs, NJ: Prentice-Hall.
- KUCHLER, AUGUST WILL  
 1977 Map of the natural vegetation of California. In Terrestrial Vegetation of California, edited by M.G. Barbour and Jack Major. New York: John Wiley and Sons.
- LAUGHRIN, LYNDAL  
 1977 "The Island Fox: A Field Study of Its Behavior and Ecology." Ph.D. diss., University of California at Santa Barbara.  
 1980 "Populations and Status of the Island Fox." In The California Islands, edited by Dennis M. Power, 745-49. Santa Barbara: Santa Barbara Museum of Natural History.
- LYNCH, J.F., AND N.K. JOHNSON  
 1974 "Turnover and Equilibria in Insular Avifaunas, with Special Reference to the California Channel Islands." Condor 76:370-84.
- McDONNELL, M.J.  
 1981 "Trampling Effects on Coastal Dune Vegetation in the Parker River National Wildlife Refuge, Massachusetts, USA." Biological Conservation 21:289-301.

- MYLER, J.L.  
 1970 "The Dirty Animal-Man." In Eco-Crisis, edited by C.E. Johnson, pp. 116-41.
- MUNZ, PHILIP A., AND DAVID D. KECK  
 1959 A California Flora. Berkeley: University of California Press.
- NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, U.S. DEPARTMENT OF COMMERCE  
 1980 Final Environmental Impact Statement on the Proposed Channel Islands Marine Sanctuary. Washington, D.C.
- NATIONAL PARK SERVICE, U.S. DEPARTMENT OF THE INTERIOR  
 1978 "Management Policies." Washington, D.C.
- 1979 Environmental Assessment of Alternatives for Visitor Use/ Interpretation/General Development, Channel Islands National Monument. Denver Service Center.
- 1980 General Management Plan, Channel Islands National Park--Anacapa, Santa Barbara, and San Miguel Islands. 2 vols. Vol 1: Visitor Use, Interpretation, and General Development; vol 2: Natural and Cultural Resources Management. Denver Service Center.
- 1982 "Channel Islands National Park Biennial Natural Resources Study Report." Denver Service Center.
- 1982 Land Protection Case Study, Channel Islands National Park. Denver Service Center.
- 1982 New Tools for Land Protection: An Introductory Handbook. Washington, D.C.
- 1983 "Draft Statement for Management, Channel Islands National Park." On file at Channel Islands National Park.
- 1983 Draft Land Protection Plan, Channel Islands National Park. Denver Service Center.
- 1983 "Natural and Cultural Resources Survey, Santa Rosa and East Santa Cruz Islands." On file at Channel Islands National Park.
- 1984 Draft General Management Plan Supplement / Environmental Assessment, Channel Islands National Park. Denver Service Center.
- 1984 Land Protection Plan, Channel Islands National Park. Denver Service Center.
- ODUM, E.P.  
 1971 Fundamentals of Ecology. 3rd. ed. Philadelphia: W.B. Saunders Company.

- ORR, P.C., AND R. BERGER  
 1966 "The Fire Areas on Santa Rosa Island, California." Proceedings of the National Academy of Sciences 56:1409-16.
- PHILBRICK, RALPH N., AND ROBERT HALLER  
 1977 "The Southern California Islands." In Terrestrial Vegetation of California, edited by M.G. Barbour and Jack Major, 893-908. New York: John Wiley and Sons.
- POWER, DENNIS M.  
 1972 "Numbers of Bird Species on the Channel Islands." Evolution 26:451-63.
- POWER, DENNIS M., ed.  
 1980 The California Islands: Proceedings of a Multidisciplinary Symposium. Santa Barbara: Santa Barbara Museum of Natural History.
- RUSSELL, GEORGE VERNON, F.A.I.A., AND ASSOCIATES  
 1965 A Master Plan for the Gherini Ranch Development, Santa Cruz Island, Santa Barbara County, California. Los Angeles.
- SAN BUENAVENTURA, CITY OF, CALIFORNIA  
 1981 Local Coastal Program, Ventura Harbor Segment.  
 1982 "Local Coastal Program, Land Use Plan." Draft.
- SANTA BARBARA COUNTY, CALIFORNIA  
 1982 Santa Barbara County Coastal Plan.  
 1982 Santa Barbara County Coastal Zoning Ordinance.
- SANTA BARBARA MUSEUM OF NATURAL HISTORY  
 n.d. Natural Resources Study, Channel Islands National Monument. Santa Barbara.
- SMALL, A.  
 1974 The Birds of California. New York: Macmillan Publishing Co.
- SMITH, CLIFTON F.  
 1976 A Flora of the Santa Barbara Region, California. Santa Barbara: Santa Barbara Museum of Natural History.
- SONNEMAN, H., D. WEAVER, D. DOERNER, AND F. AVILA  
 1969 Geology map of Santa Rosa Island. Special publication. Pacific Sections of American Association of Petroleum Geologists and Society of Economic Paleontologists and Mineralogists.
- STONIER, TOM  
 1970 "Ecological Upsets: Climate and Erosion." In Eco-Crisis, edited by C.E. Johnson, pp. 49-60.

VENTURA COUNTY, CALIFORNIA

1982 Ventura County General Plan, Land Use Element for the Coastal Zone.

WEAVER, D.W., D.P. DOERNER, AND B. NOLF

1969 Geology of the Northern Channel Islands. Special publication. Pacific Sections of American Association of Petroleum Geologists and Society of Economic Paleontologists and Mineralogists.

WENNER, ADRIAN M., AND DONALD L. JOHNSON

1980 "Land Vertebrates on the California Channel Islands: Sweepstakes or Bridges?" In The California Islands, edited by Dennis M. Power, 497-530. Santa Barbara: Santa Barbara Museum of Natural History.

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As the nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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